

GUIDE TO YOUR
YAMAHA ELECTONE ORGAN

305D/315D

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 305D, 315D Electone marks the beginning of a lifelong partnership in musical creativity. 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.

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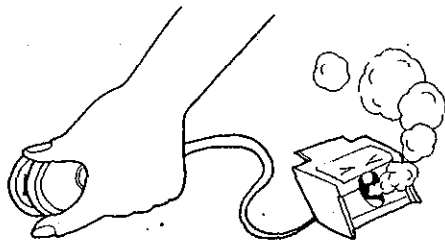
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Italics apply only to 315D hereinafter.

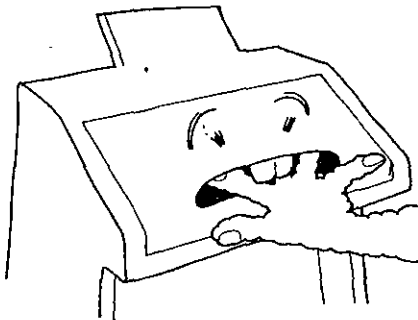
Caution (Read The Following Before Playing)

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

- 1** Check for correct power voltage. Consult your Yamaha serviceman regarding any changes.



- 2** Your Electone contains no user serviceable components. Refer all service to qualified service technicians only.

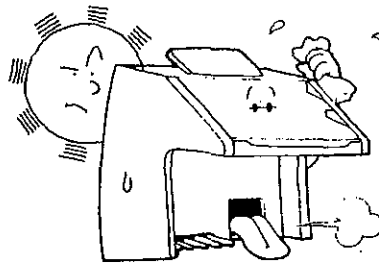


- 3** Always turn the power switch OFF after playing.

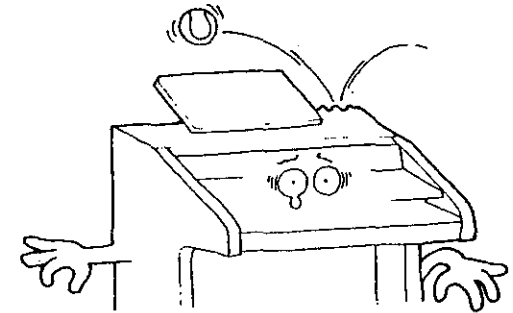
- 4** Clean the Electone Organ cabinet with a damp cloth containing a neutral cleaning agent. Use only soft and dry cloth on the keyboards. Never use paint thinner, alcohol or other chemicals on either the keys or the cabinet.



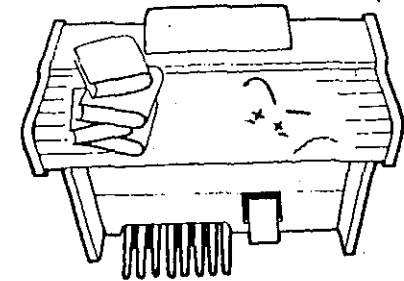
- 5** Keep the Electone Organ in a position away from direct sunlight, excess humidity and heat to protect the cabinet finish.



- 6** Do not hit or scratch the cabinet with a hard object.

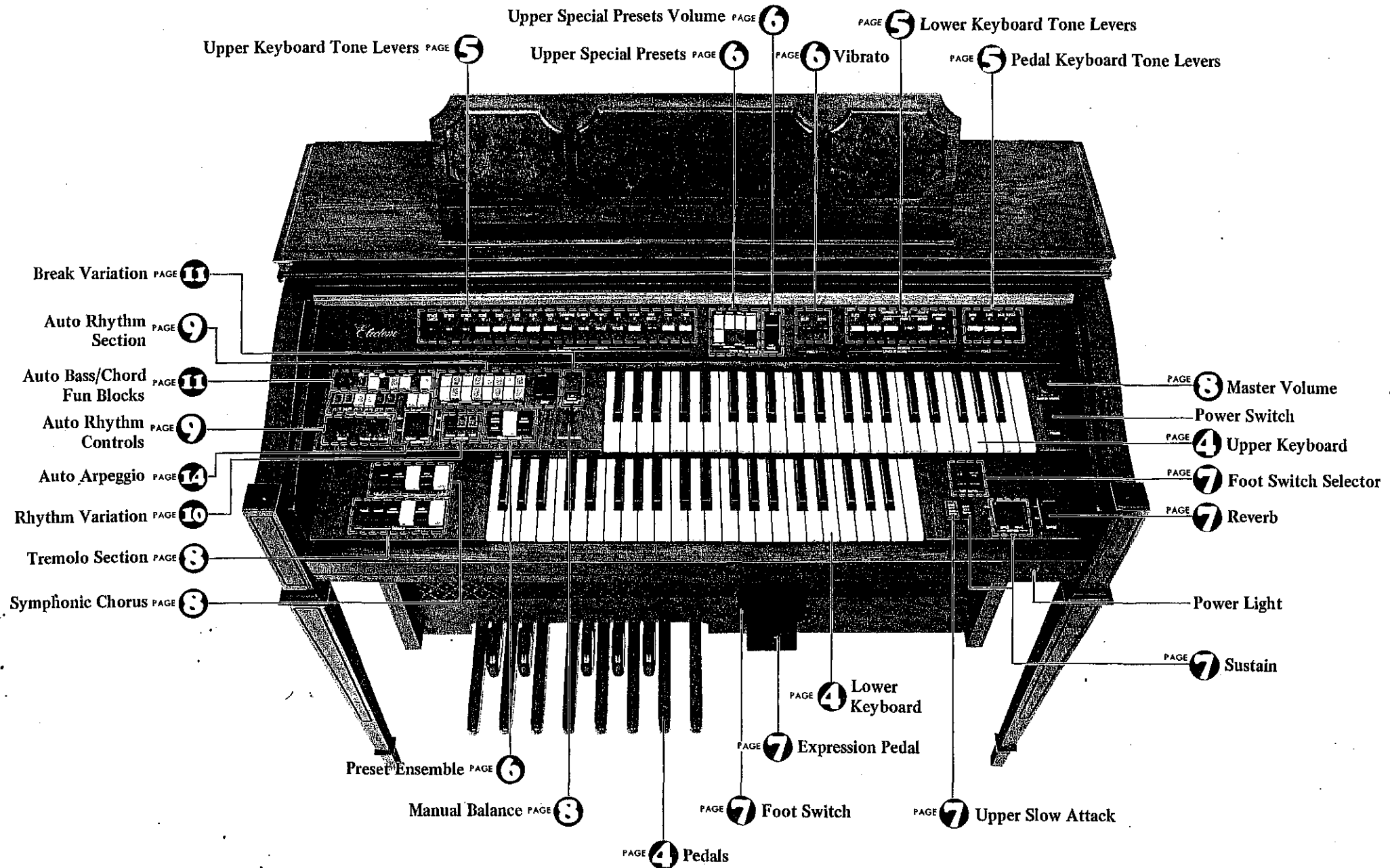


- 7** Do not set heavy objects on the rolltop fall-board.



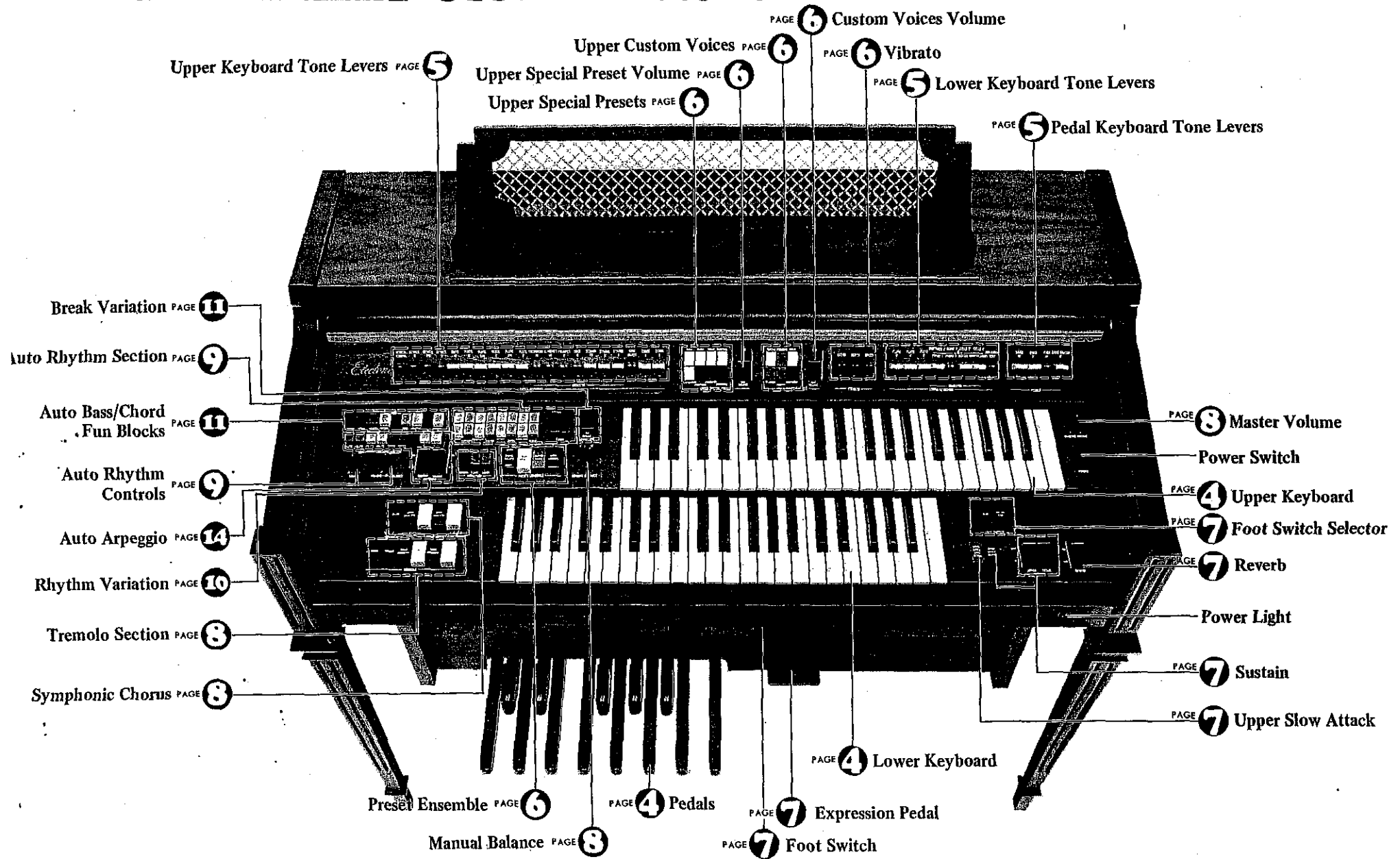
- 8** The finish on your Electone Organ may undergo a chemical reaction if placed in direct contact with polyvinyl products. Do not set vinyl items on the surface or use polyvinyl material to cover the organ for any extended period of time.

Your YAMAHA 305D Electone



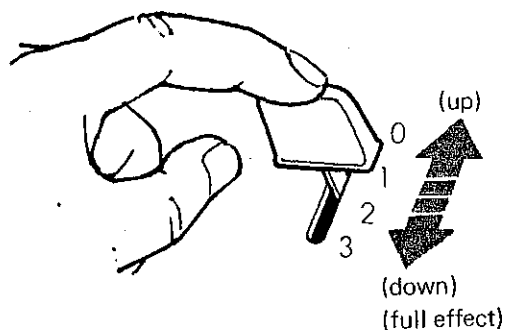
Specifications subject to change without notice.
Cabinet shown model 305D-1.

Your YAMAHA 315D Electone



Specifications subject to change without notice.
Cabinet shown model 315D-1.

Tone Levers



The tone levers control the 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.

305D	Upper Tone Levers	15	315D	Upper Tone Levers	19
	Lower Tone Levers	6		Lower Tone Levers	8
	Pedal Tone Levers	3		Pedal Tone Levers	4

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.

ATTACK 4', 2-2/3', 2': This lever gives sharper definition to the beginning of notes played on the upper keyboard. It is like the "pizzicato" sound of notes played by plucking strings.

Note: The effect is not obtained with a new key if you are still pressing the one before. Think in terms of one key for one sound at a time.

ATTACK LENGTH: This lever is used to adjust the decay time effect.

COMBINATION 1, 2: By pulling a single lever, preset combinations of upper tone lever can be obtained. The combination 1 consists of attack 2-2/3', flute 16', flute 8', and flute 5-1/3', and delivers a tone color resembling jazz tone. The attack length can be controlled by the attack length lever. The combination 2 comprises flute 16', flute 8', flute 4', flute 2', trombone 16', string 8', and string 4', and gives a color tone similar to full sounds. Pulling anyone of these levers cancels other upper tone lever effects.

WAH-BRASS: This blends a Fantastic Wah sound with the Trombone 16' tone.

DIAPASON: A rich, resonant burst of deep, clear organ harmony is produced by this effect.

RHYTHMIC WAH: A fantastic coloration can be given to the lower keyboard sound by pulling this lever. The Rhythmic Wah can be teamed with the Auto Rhythm (to be explained later) so as to produce an even more interesting effect.

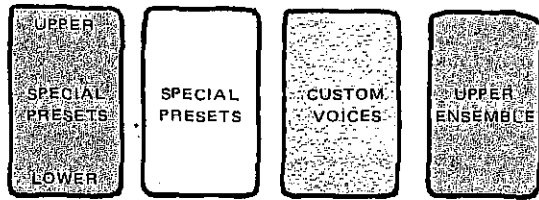
Note: This effect cannot be obtained with Waltz 1, Ballad, and Bossanova 2, and also while Break Variation is ON.

PITCHES OR FOOTAGE

Several different pitch levels are generated by the tone levers. These are designated with the numbers 16', 8' and 4' for example. These are standard organ abbreviations showing the tone's pitch in relation to the fundamental (written) note. An 8' tone will sound just as it has been written. A 16' tone will provide a tone exactly one octave lower than the written note. Similarly, 4' tones are one octave higher than the written note. By combining these tone values, you can obtain the effect of several keyboards by simply pressing the notes on one keyboard (i.e., the coupler effect). The result is a full, deep organ sound.

Note: Refer to the previous page for the relationship between 8' tones and the notes.

Upper Special Presets



(315D only)

On the panel above the upper keyboard you will find seven Special Preset Tone selectors. With the Special Presets tablet ON, you can flick ON a selector switch for the following tonal blends: Piano, Harpsichord, Guitar, Vibraphone, Accordion, Banjo and Mandolin.

If two buttons are pressed at the same time, only the one on the right takes effect. If the Special Presets tablet is turned ON, the Upper Tone lever settings are canceled, but if the tablet is switched OFF, the tone lever settings immediately take effect once more, allowing you to switch back and forth smoothly and easily.

The symphonic effect is applied to the special preset sound.

UPPER SPECIAL PRESETS VOLUME

You can adjust the volume of the Special Preset Tones independently.

UPPER ENSEMBLE

If the Special Presets tablet is left ON and you turn ON the Upper Ensemble tablet, you can enjoy a blend of the preset tones and upper tones in a striking Ensemble effect.

Note: This effect is canceled when you use the Upper Special Presets Lower tablet for the feature hereinafter explained.

UPPER SPECIAL PRESETS LOWER

If the Special Presets tablet is left ON and you turn ON the Upper Special Presets Lower tablet (LOWER), you can obtain the preset tones on the lower keyboard one octave higher. And the Ensemble effect can be used on either keyboard at the same time, since the tone lever settings can be cut back in. The Ensemble effect can also be enjoyed by combining the lower keyboard preset tones with its tone lever settings.

Note: The Special Presets Lower effect is canceled whenever you use the Auto Bass/Chord.

Upper Custom Voices (315D only)

Five buttons next to the Special Preset Tone Selectors are the Custom Voice Selectors. When the Custom Voices tablet is ON and you select and push one of these buttons, you can obtain a tone color of Piccolo, Trombone, Trumpet, Clarinet or Violin on the upper keyboard depending on your selection. Once the keyboard is depressed, these tone colors start to vary every moment in the so manner as to resemble the musical instruments. Putting the Custom Voices tablet ON cancels setting of the Upper Tone Lever. But, by putting the Upper Ensemble tablet ON, you can enjoy an ensemble play with these tones on the upper keyboard.

The symphonic effect is applied to the custom voice sound.

UPPER CUSTOM VOICE VOLUME

It permits independent control of Custom Voices only.

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 (Controlled by Upper Keyboard)

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 cut in.

SPEED (315D only)

This lever is to adjust Vibrato speed. The further you pull the lever toward you, the faster the speed becomes.

Upper Slow Attack

This tablet produces a slower, more modulated overall effect to the attack executed with the upper keyboard tone lever 16', 8', 4' and 2' sounds.

Upper Sustain

When the Upper Sustain tablet is turned ON, a natural-fadeout of the 16', 8', 4' and 2' tones is heard after a key is released on the upper keyboard. This sustain effect is lengthened by pulling out the Sustain lever.

Note: The sustain effect is not possible with the following Special Preset Tones: *Accordion, Banjo and Mandolin*. The *Vibraphone* has a built-in sustain effect that takes over without any connection with the Sustain tablet. With the other Special Preset tones, however, the Sustain tablet must be turned ON. The length of the sustain effect may not be regulated by the lever in any of these cases. *Sustain is not produced on Custom Voices.*

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.

Reverb

The reverberation effect, which makes your playing sound full and rich as, if you were playing in a concert hall, can be adjusted continuously and smoothly to suit your taste.

Expression Pedal

ON/OFF
Foot Switch



Expression Pedal

By using your right foot to continuously vary the volume, you can match any passage you are playing with just the right mood through expressive phrasing.

Foot Switch

The Foot Switch attached to the Expression Pedal delivers two different functions, 'Glide' effect and Rhythm Stop, and a selection of these functions is offered by two Foot Switch Selectors provided on the panel to the right of the lower keyboard.

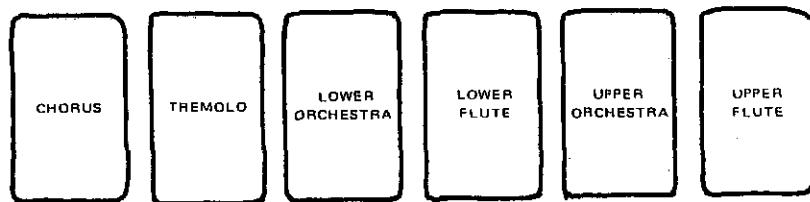
GLIDE

When the Glide Tablet is kept ON and the foot switch is depressed with the right foot, is obtainable 'Glide' effect which reduces an interval to almost a half. By releasing the Foot Switch, the preceding interval gets restored. With this Glide effect, Vibrato is canceled.

RHYTHM STOP

This function relates to Auto Rhythm which will be described later. When the Rhythm Stop tablet is turned ON and the Foot Switch is used, it is possible to stop or re-start Rhythm in the simple manner without using your hand and at any time during the play. When Rhythm is functioning and you once depress the foot switch, Rhythm is immediately brought to a stop, and another depressing given to the switch makes Rhythm re-start from the first beat. Rhythm also re-starts when Rhythm is left at a stop through the foot switch and the rhythm stop tablet is turned OFF.

Tremolo Section



You can also add a richer, stereophonic sound so as to achieve fuller expression. This Tremolo can produce two different effects depending on a change of the speed. To obtain an ordinary Tremolo effect, turn ON the Tremolo tablet. The Chorus effect with a slower tempo, on the other hand, is obtained by turning ON the Chorus tablet. In general, the Tremolo effect is used with popular music, and the Chorus effect with grand and dignified music. Please determine an extent of Tremolo effect by means of other four tablets.

UPPER FLUTE: Use this tablet to give the Tremolo to the Flute tone on the upper keyboard.

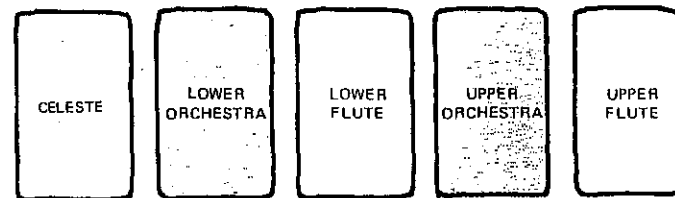
UPPER ORCHESTRA: Use this tablet to produce the Tremolo effect with the Orchestra tone on the upper keyboard.

LOWER FLUTE: Use this tablet to give the Tremolo to the Flute tone on the lower keyboard.

LOWER ORCHESTRA: Use this tablet to produce the Tremolo effect with the Orchestra tone on the lower keyboard.

Note: When a tablet and a symphonic chorus tablet with the same designation as the former are turned ON simultaneously, Tremolo effect is canceled.

Symphonic Chorus



By turning ON the four tablet switches above next to the Tremolo section, lively and extensive 'Symphonic Chorus' effect can be given to the tone color of each Upper Flute, Upper Orchestra, Lower Flute, and Lower Orchestra.

When the CELESTE tablet is set to ON, the sound reverberates slowly and this gives the music a settled and 'picturesque' effect.

Manual Balance

This control governs the relative strength of the upper and lower keyboards. It is normally left in the center position, but can be shifted to stress the melody or accompaniment in a selection or passage.

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

MARCH	WALTZ 1	WALTZ 2	BALLAD	SWING	SLOW ROCK	JAZZ ROCK	DISCO
4/4	3/4	3/4	12/8	12/8	12/8	4/4	4/4
TANGO	BOSSANOVA 1	BOSSANOVA 2	RHUMBA	MAMBO	SAMBA	LATIN ROCK	16 BEAT
4/4	4/4	4/4	4/4	4/4	4/4	4/4	4/4

This section provides a selection of 16 rhythms, which can be produced at the press of a button. 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. When both rows of buttons are used together, the upper row takes precedence. In addition to the Tempo, Volume and Balance control knobs, the ordinary START switch and the unique Yamaha SYNCHRO-START switch are equipped. The latter cuts in the rhythm accompaniment on the first beat of a bar, when you play the first note on the lower keyboard or a pedal note. The special expression pedal foot switch is to cut and restart the rhythm at any point during your play.

RHYTHM-START

For rhythm independent of keyboard play, push the rhythm selection button desired, then flick the START switch ON.

The Auto Rhythm can be switched OFF with the foot switch. To restart the Auto Rhythm, switch ON with the foot switch.

SYNCHRO-START

Select the rhythm on the SYNCHRO-START and begin to play once you have established the beat. The rhythm will begin as soon as you strike a lower keyboard or pedal note. This switch permits you to lead in with a rhythm-free melody on the upper keyboard if so desired.

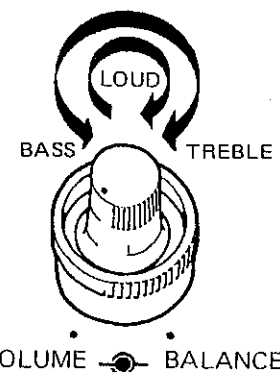


TEMPO

You can "tune in" the right tempo before or after you begin playing by flicking ON the Start switch and adjusting the tempo by ear. Another way is to select the rhythm, then switch ON the Synchro-Start. No sounds are produced, but you may visually check the tempo because the Tempo Indicator lamp will flash each quarter note. Once the rhythm has begun, the lamp flashes at every measure.

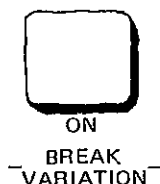
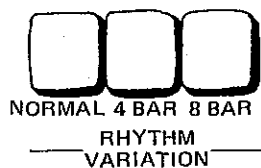
VOLUME

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



BALANCE

This control lets you balance the low rhythm sounds, such as drums, and the high sounds (i.e., cymbals) according to your mood and selection. It makes for a great difference in the overall effect even when using the same rhythm. Turn the knob to the right to accentuate the higher (treble) sounds, to the left to accentuate the lower (bass). If you accentuate the treble sounds, the rhythm takes on more tonal clarity.



RHYTHM VARIATION

These are used to add variation to the rhythm patterns selected by the rhythm selectors. The selector switch selection of the rhythm variation has NORMAL, 4 BAR and 8 BAR variation buttons.

When the 4 BAR button is pushed, the rhythm pattern is automatically added every 4 bars. The same effect is produced every 8 bars when the 8 BAR button is pushed.

When the NORMAL button is pushed, the selected rhythm returns to the normal Auto Rhythm without switching to the rhythm variation pattern.

BREAK VARIATION

This is used when an accent is desired on the rhythm. The moment the Break Variation button is pushed, the green light lights up and the Break Variation rhythm start. They both stay ON till the end of the bar in which the button is released.

At the termination of the Break Variation rhythm, the original rhythm takes over automatically.

Seven different kinds of Break Variation patterns and two kinds of INTRO patterns are provided. And each of them is assigned to the original rhythms as follows.

Time Family	Kind of Break VAR.	Original Rhythm
4/4	INTRO 1	All 4/4 time family rhythms
	Break VAR. 1	MARCH, TANGO
	Break VAR. 2	JAZZ ROCK, DISCO, 16 BEAT
	Break VAR. 3	RHUMBA, MAMBO, SAMBA, LATIN ROCK
3/4	Break VAR. 4	BOSSANOVA 1, BOSSANOVA 2
	INTRO 2	All 3/4 time family rhythms
12/8	Break VAR. 5	WALTZ 1, WALTZ 2
	INTRO 1	All 12/8 time family rhythms
	Break VAR. 6	BALLAD
	Break VAR. 7	SLOW ROCK

Note: While the Break Variation or INTRO rhythm is ON, Auto Bass/Chord, Auto Arpeggio and Rhythmic Wow don't work.

• Operation of INTRO pattern

Push the Break ON button while the rhythm is at a stop. (The button ON causes the light of the Break ON button to light up showing that the INTRO pattern is at the stand-by.)

Then flick the START switch ON, and the INTRO pattern in accordance with the original rhythm (4/4, 3/4 or 12/8) is played for the first two bars. From the third bar on, however, the rhythm is switched to the original one automatically.

- Note:
1. If the SYNCHRO START switch has been ON before the Break ON button is pushed, the INTRO pattern will not work.
 2. Flicking the SYNCHRO START switch ON while the INTRO pattern is played cancels this INTRO pattern at the very moment.
 3. After the rhythm was stopped with the foot switch, if the Break ON button is pushed and the rhythm is started again with the foot switch, the INTRO pattern will not work. Instead, the Break VAR. rhythm is played for the first bar and the original rhythm takes over from the second bar.
 4. While the rhythm is at a stop, the INTRO rhythm is canceled by pushing the Break ON button again and the lamp also turns off.

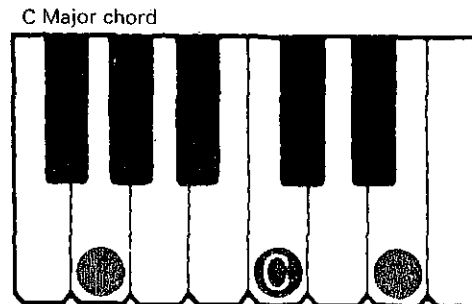
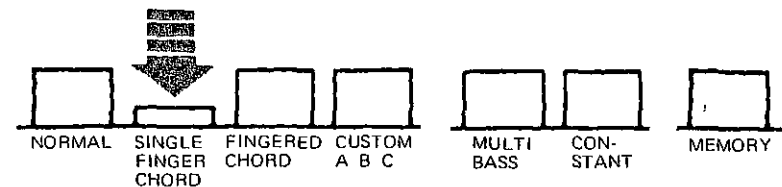
Auto Bass/Chord Fun Blocks

These Electones are equipped with a "Fun Block" section of seven buttons which can be used in conjunction with the Auto Rhythm section.

It enables you to play a variety of alternating bass notes and chords of the lower keyboard, depending upon which fun block button you push. From your very first keyboard attempt, the fun block feature will let you sound like a pro, making full rhythmic use of the lower keyboard and pedals. Here is how it works.

Note: When you use the Auto Bass/Chord, Diapason 8' changes to Piano 1, Horn 8' becomes Piano 2, and Cello 8' converts to Guitar tone also Cello 4' to Harpsichord on the lower keyboard.

Auto Bass/Chord doesn't work while the Break Variation rhythm is ON.



MULTI BASS

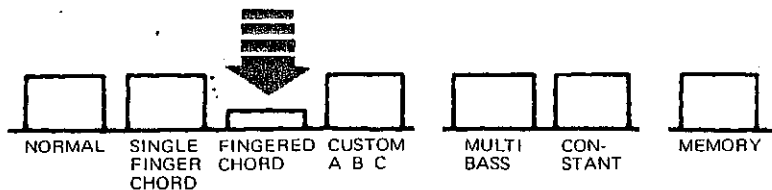
The Multi Bass enables you to give a fuller, more sophisticated sound to the Auto Bass rhythm for even greater variation.

SINGLE FINGER CHORD (THE EASY PLAY WAY)

- 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.
- Push the button for whatever rhythm you wish.
- Set the Rhythm Start switch ON.
- Adjust the rhythm tempo and volume.
- Push the Single Finger Chord button.

Now, if you press 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.

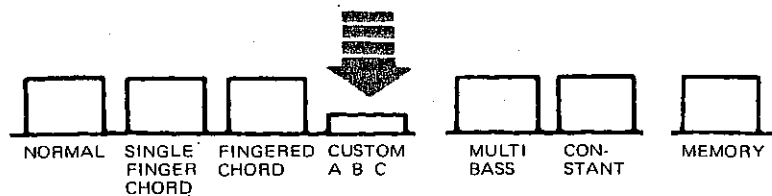
As long as the key is held down, the bass chord rhythm continues. When the Black-key pedal is pressed, the chord changes from major to minor, and when released, the chord returns to major. When the White-key pedal is pressed, the chord changes from major to seventh, and when released, the chord returns to major. When both Black- and White-key pedals are pressed, a minor seventh results.



FINGERED CHORD

- Select the rhythm and set both its tempo and volume as explained earlier.
- Push the Fingered Chord button.
- Play a desired chord (major, minor, seventh, minor-seventh) on the lower keyboard.

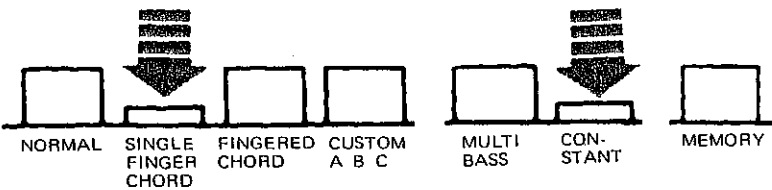
Now as long as you hold that chord, it will play according to the rhythm and tempo you have set. The pedal notes sound automatically for the chord you play on the lower keyboard.



CUSTOM A.B.C.

- Push a desired rhythm button and set both tempo and volume as explained earlier.
- Push the Custom A.B.C. button. The chord notes on the lower keyboard are independent of the pedal notes. They will both be played automatically in terms of the Auto Rhythm selected.

Note: Bass sound depends on the pedal key, whereas chord depends on the Lower key.



CONSTANT

- Push the Constant button and either the Single Finger Chord or the Fingered Chord button.
- Play 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.

MEMORY

This feature permits chords and or pedal notes to continue to play after the pedal or chord has been released.

The Memory Fun Block will function with the Normal, Single Finger, Fingered, Custom A.B.C. and Constant Fun Blocks, as illustrated.

Normal/Memory

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

Constant/Single Finger (Fingered)/Memory

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

Single Finger (Fingered)/Memory

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

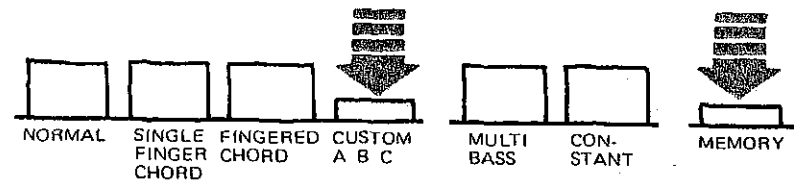
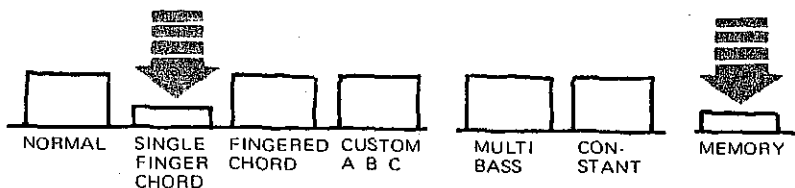
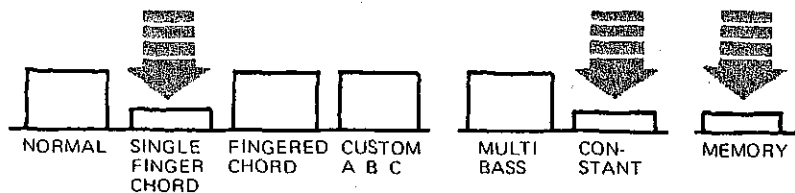
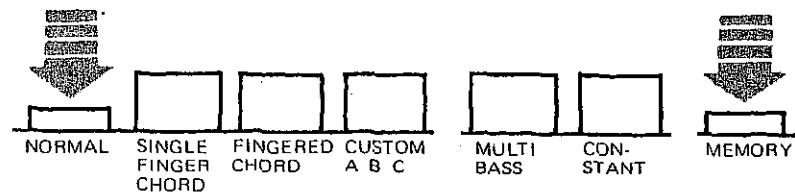
Custom A.B.C./Memory

This feature permits you to continue to alternate a Rhythm after you have released the pedal or chord, until another pedal key or chord is selected. This enables you to expand the capabilities of the Fun Block system to your Pedal and Chord harmonic tastes.

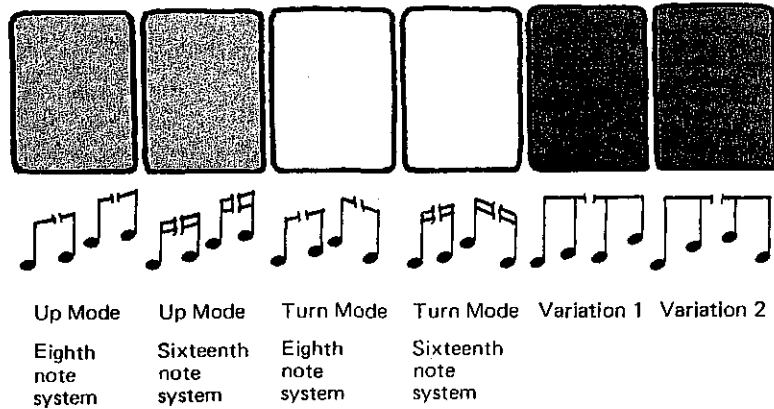
Note: Custom A.B.C./Constant/Memory or Finger Chord/Constant/Memory . . . Bass will play continuously with or without Auto Rhythm, until another pedal key or chord is selected.

NORMAL

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



Auto Arpeggio



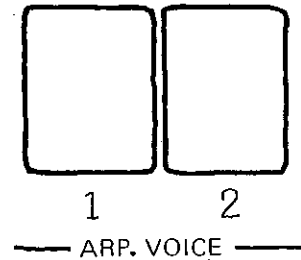
The repeated use of arpeggio during a piece adds real flair to your playing. You can combine the Auto Arpeggio with the Auto Rhythm section, or you can also blend in the Auto Bass/Chord.

Note: Auto Arpeggio is canceled while the Break Variation rhythm is ON.

AUTO ARPEGGIO START

- Make your Auto Rhythm selection and switch ON the Synchro-Start.
- If you wish to bring in the Auto Bass/Chord, make the appropriate setting. The Auto Arpeggio can be put on Memory by pushing the MEMORY button.
- Push VOICE 1 or VOICE 2 button for the arpeggio you prefer.
- Set one of the six pattern selectors for the arpeggio pattern you wish to use. Set the Arpeggio Volume Control.

The moment you play a note on the lower keyboard, the Auto Arpeggio you have activated will cut in together with the Auto Rhythm from the very beginning.



VOICE

The VOICE switches determine the tonal quality of the arpeggio. Button-activation of Voice 1 and Voice 2 produces 4' and 2' tone arpeggio, respectively. Auto Arpeggio cannot be obtained when both switches are OFF. When they are both ON, a blend of both tones is achieved.

PATTERN SELECT SWITCH

These switches enable you to play any of six different arpeggio patterns. From left to right: Up Mode (eighth), Up Mode (sixteenth), Turn Mode (eighth), Turn Mode (sixteenth), and Variation 1 and 2, in combination with the Auto Rhythm. If all of the Pattern Select switches are put OFF, the Turn Mode sixteenth arpeggio takes effect.

VOLUME

This control regulates only the volume of the Auto Arpeggio. No arpeggio sound is heard when it is at the lowest setting.

SUSTAIN

By pulling the Arpeggio Sustain lever, a sustain effect can be produced in the arpeggio. The sustain effect can be adjusted at any time.

To Obtain Maximum Enjoyment From Your 305D, 315D

HEADPHONES

(390Ω)

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

EXP. IN

(50kΩ)

This jack accepts any sound source (Guitar, Synthesizer, etc.) and reproduces it through the Electone speakers.

Note: The output level of the sound source can be controlled by the expression pedal.

AUX OUT

(470Ω)

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

AUX IN

(23kΩ)

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.

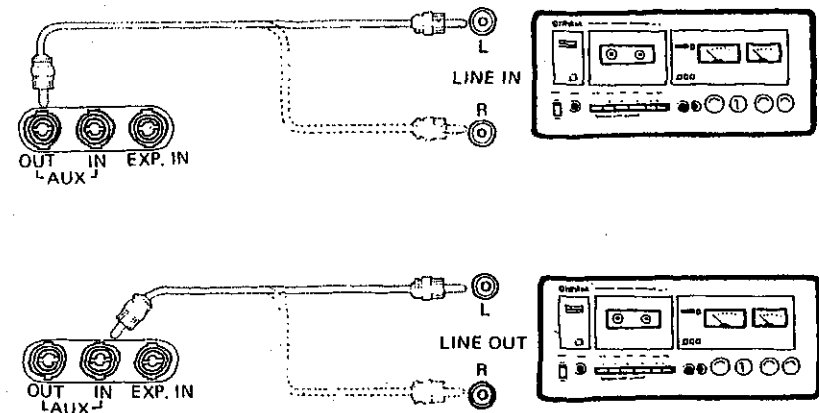
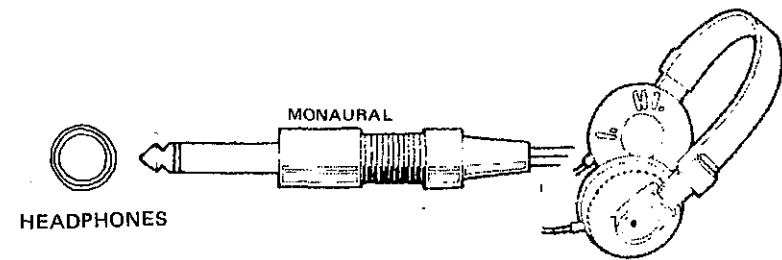
tone cabinet connector

When a concert is given, connection of a tone cabinet makes further dynamic sounds obtainable.

YAMAHA: This connector is exclusively for the YAMAHA Tone Cabinet, and is connectable to the new type tone cabinet in which an electronic Tremolo effect is built-in. It can deliver Tremolo/Chorus effect respectively to the flute and orchestra tones on the upper/lower keyboards.

Leslie: This connector is directly connectable to a **Leslie** speaker.

Note: Consult your nearby Yamaha dealer for the detail as the number of pins may be different in some tone cabinets.



Important Advice (Electone is not necessarily out of order if...)

1 the unit does not go ON when the power switch is turned ON. Check the following.

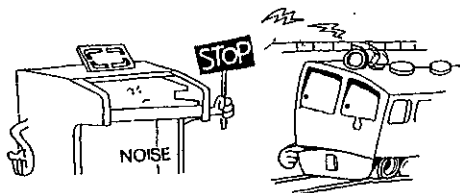
Is the AC plug fully inserted into the wall power outlet? Reinsert it to make sure. Is there power coming from that outlet?

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 pedal notes sound too high, upper keyboard 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, whereas Electone harmonics are simpler (multiples of the fundamental tone) and require a different kind of adjustment at the assembly stage.

5 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.





Yamaha Electone Organ Registration Chart

The Yamaha Electone Organ is a very unique instrument capable of reproducing the sounds of an entire orchestra, of producing special effects and of imitating solo instruments.

Your Yamaha organ features numerous controls, levers and tabs which enable you to create a wide variety of combinations. Each combination is called a REGISTRATION.

Sixteen different instrumental combinations and special effects are listed on this Registration Chart. In some cases, alternate registrations are suggested; these are indicated with an asterisk (*).

- | | |
|--------------------------------|--------------------------------------|
| 1. General Flutes | 10. Piano * |
| 2. Full Flutes | 11. Hawaiian Guitar |
| 3. Full Organ (Flutes/Strings) | 12. Accordion |
| 4. Full Organ (Flutes/Reeds) | 13. Banjo/Harpsichord |
| 5. Open Flutes | 14. Marimba/Vibes |
| 6. Reed/String Ensemble | 15. Mandolin/Organ/
Solo Clarinet |
| 7. Classical Organ | 16. Chimes/Harp |
| 8. Church | |
| 9. Jazz Organ/Rock Organ | |

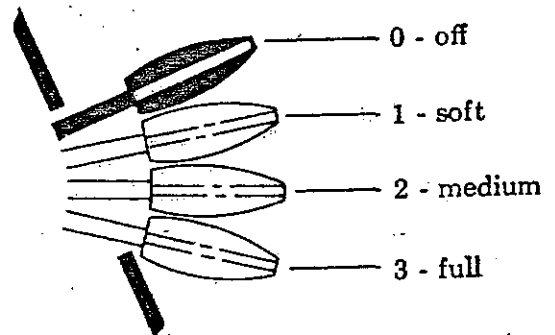
A suggested registration number is shown on each song sheet in the Yamaha Family Fun Box. Locate your organ model on the Registration Chart, and then set the organ controls accordingly. Before setting up a new registration, make sure all tone levers and controls are in the "OFF" position.

The organ models which have similar features are grouped together in the listings. A model which has a control or lever unlike any of the models in that group is marked with an asterisk, and the particular feature or features which are exclusive on that model are also marked with asterisks.

In most cases, an instrument name is followed by a number (16', 8', 4', etc.). The number indicates the footage of an organ pipe. On a pipe organ, the various lengths (footages) of pipes produce various degrees of pitch. Although an electronic organ does not have pipes, the footage markings still indicate the high and low pitches of the particular instrumental sounds. For example, a Flute 16' is the lowest pitch, the 8' is an octave higher in pitch, the 4' an octave higher than the 8' and so on. Therefore, all instruments with the same footage number have the same degree of pitch. On some Yamaha models, there is a slider labelled TRANSPOSITION. This slider controls the various pitches available for certain sections of the organ.

The tonal effects on your Yamaha are controlled by the exclusive variable "click-stop" Tone Levers. These provide unlimited flexibility to voices and effects. Each lever can be set at three different positions, allowing you three main settings for each voice. As you move a Tone Lever down, it will "click" into three successive notches: first click - soft, second click - medium volume, and the third click - full volume. These are referred to as "1", "2", and "3" on the Registration Chart.

TONE LEVER
(Side View)



It is also possible to set a lever "in-between" any of the click notches. This type of setting will be indicated on the chart as "1.5" or "2.5".

A setting for a switch or a dial is indicated on the chart by the use of three dots and an arrow pointing to one of them or to a setting between the dots.



Changing registration within a song is introduced in the Special Arrangements Manual. In most cases, just adding or deleting one or two tabs is suggested . . . it will not be necessary to change every lever from the original registration.

As you become more familiar with your Yamaha, you'll discover combinations not listed on the Registration Chart. When you review arrangements, feel free to experiment with settings other than those recommended on the song sheet, and add variety to your playing by changing registration.

MODEL 305 — 315

* Model 315 only

<p>1. UPPER Flute 16' 8' 4" * 2' (3) LOWER Flute 8' (3) Flute 4' (2) PEDAL Bass 16' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) TREMOLO CONTROLS Upper Flute Rotary (On) Lower Flute Rotary (On) Tremolo (On)</p>	<p>2. UPPER Flutes 16' 8' 4" * (3) LOWER Flute 16' 8' 5 1/3' 4' 2 2/3' 2' Flute 8' (3) Flute 4' (2) PEDAL Bass 16' (3) Bass Sustain (Med) Manual Balance ∴ Reverb (Med) TREMOLO CONTROLS Upper Flute (On) Lower Flute (On) Tremolo (On)</p>	<p>3. UPPER Flutes 16' 8' 4" * 2' (3) String 8' (2) LOWER Flute 8' (3) Flute 4' (2) Cello 8' (2) PEDAL Bass 16' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) TREMOLO CONTROLS Upper Flute (On) Lower Flute (On) Tremolo (On)</p>	<p>4. UPPER Flutes 16' 8' 4" * 2' (3) Oboe 8' (2) LOWER Flute 8' (3) Flute 4' (2) Horn 8' (2) PEDAL Bass 16' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) TREMOLO CONTROLS Upper Flute (On) Lower Flute (On) Tremolo (On)</p>
<p>5. UPPER Flutes 16' 4' (3) LOWER Flute 8' (3) Flute 4' (4) PEDAL Bass 16' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) TREMOLO CONTROLS Upper Flute (On) Lower Flute (On) Tremolo (On)</p>	<p>6. UPPER Flutes 16' 8' 4' (3) String 8' (2) Oboe 8' (2) LOWER Flute 8' (3) Horn 8' (2) PEDAL Bass 16' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) SYMPHONIC CHORUS Upper Orchestra (On) Lower Orchestra (On) TREMOLO CONTROLS Upper Flute (On) Lower Flute (On) Tremolo (On)</p>	<p>7. UPPER Flute 16' 8' 4" * 2' (3) Trombone 16' (2) String 8' (1) LOWER Flute 8' (3) Horn 8' (2) PEDAL Bass 16' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) SYMPHONIC CHORUS Upper Orchestra (On) Lower Orchestra (On) TREMOLO CONTROLS Upper Flute (On) Lower Flute (On) Chorus (On)</p>	<p>8. UPPER Flute 16' 8' 4" * 2' (3) LOWER Flute 8' (3) Horn 8' (3) PEDAL Bass 16' (3) CONTROLS Manual Balance ∴ Reverb (Med) TREMOLO CONTROLS Upper Flute (On) Lower Flute (On) Chorus (On)</p>
<p>9. UPPER Preset # 1 * (On) Flute 16' 8' 5 1/3' (3) LOWER Flute 8' (3) PEDAL Bass 8' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) TREMOLO CONTROLS Upper Flute (On) Lower Flute (On) Chorus (On)</p>	<p>10. UPPER Piano Preset (On) LOWER Flute 8' (On) PEDAL Bass 16' (On) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) Preset Volume (Max) TREMOLO CONTROLS Upper Flute (On) Lower Flute (On) Tremolo (On)</p>	<p>11. UPPER Flute 16' (3) Clarinet 16' (3) LOWER Flute 8' (3) PEDAL Bass 8' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) Upper Sustain (Max) Vibrato, Depth & Delay (3) Speed (2) TREMOLO CONTROLS Upper Flute (On) Lower Flute (On) Tremolo (On)</p>	<p>12. UPPER Accordion Preset (On) LOWER Flute 8' (3) PEDAL Bass 16' (On) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) TREMOLO CONTROLS Lower Flute (On) Tremolo (On)</p>
<p>13. UPPER Banjo/Harpichord Preset (On) LOWER Flute 8' (3) PEDAL Bass 8' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) Preset Volume (Max) TREMOLO CONTROLS Lower Flute (On) Tremolo (On)</p>	<p>14. UPPER Vibraphone Preset (On) LOWER Flute 8' (3) PEDAL Bass 8' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) Preset Volume (Max) TREMOLO CONTROLS Lower Flute (On) Tremolo (On)</p>	<p>15. UPPER Mandolin Preset (On) Flute 16' 8' 4' (3) or Solo Clarinet Preset* (On) LOWER Flute 8' 4' (3) PEDAL Bass 16' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) Preset Volumes (Max) TREMOLO CONTROLS Upper Flute (On)</p>	<p>16. UPPER Flute & String 8' (3) LOWER Flute 8' (3) PEDAL Bass 16' (3) Bass Sustain (Med) CONTROLS Manual Balance ∴ Reverb (Med) Upper Sustain (Full) SYMPHONIC CHORUS Upper Orchestra (On) TREMOLO CONTROLS Upper Flute (On) Lower Flute (On)</p>