

B-30AR

GUIDE TO YOUR YAMAHA ELECTONE

Welcome to the Yamaha world of music. We are sure your selection of a Yamaha Electone was a wise one, and we want you to know that we will do everything possible to help you derive a lifetime of enjoyment from this fine musical instrument.

Please read this manual carefully to be sure you are familiar with each of the Electone's features and their expressive possibilities. In that way you and your Electone can become lifelong partners in musical creativity.

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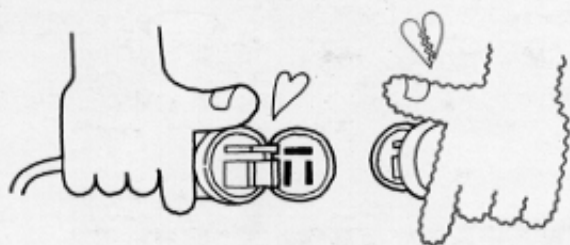
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Read the following before playing

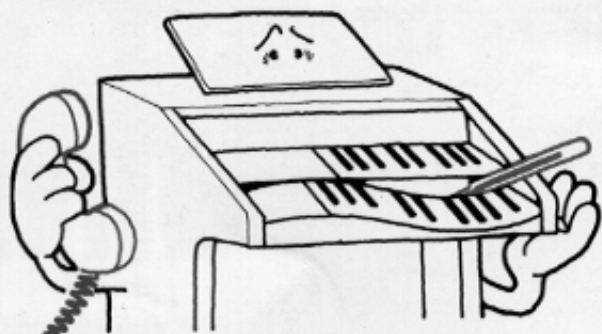
In general, treat your Electone with the same care you would any fine musical instrument. The following points are suggested for optimum enjoyment.

1. Use only proper line voltage. Consult your Yamaha serviceman for changes.

As to British-Standard Model, its information is in 'Specifications' on page 12.



2. Never touch the inside parts yourself.



3. Always shut off the power after playing.

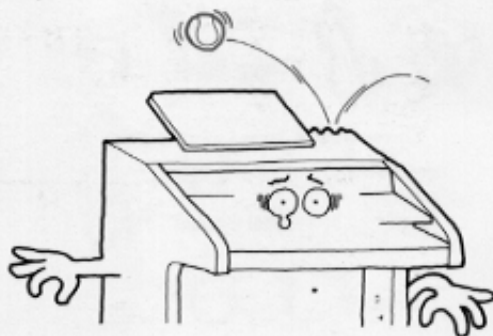
4. Clean keys, etc, with a damp cloth only. Never use solvents such as gasoline; they will damage the finish.



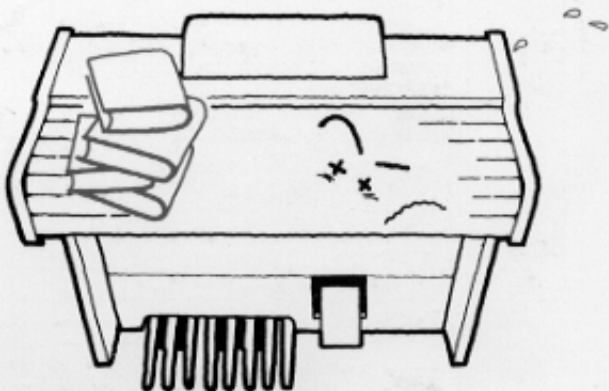
5. Shield the cabinet from direct sunlight, humidity and heat to protect the finish and joints.



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



7. To open or close the fallboard grasp the front lip with both hands and slide gently. Never pull directly upwards. Do not place anything heavy on the fallboard.



This is Your Electone



PR 3 Auto Rhythm Section

PR 5 Vibrato

PR 5 Percussive

PR 4 Upper Manual Tone Levers

PR 5 Repeat Speed



Lower Brush PR 5

Lower Manual Tone Levers PR 4

Pedal Symbol PR 5

PR 5 Upper Lower Manual Balance

PR 4 Preset Tones

PR 3 Pedals

PR 7 Tremolo / Chorus

PR 4 Pedal Tone Levers



While reading the manual, keep
this page open for reference.



Specifications subject to change without notice.

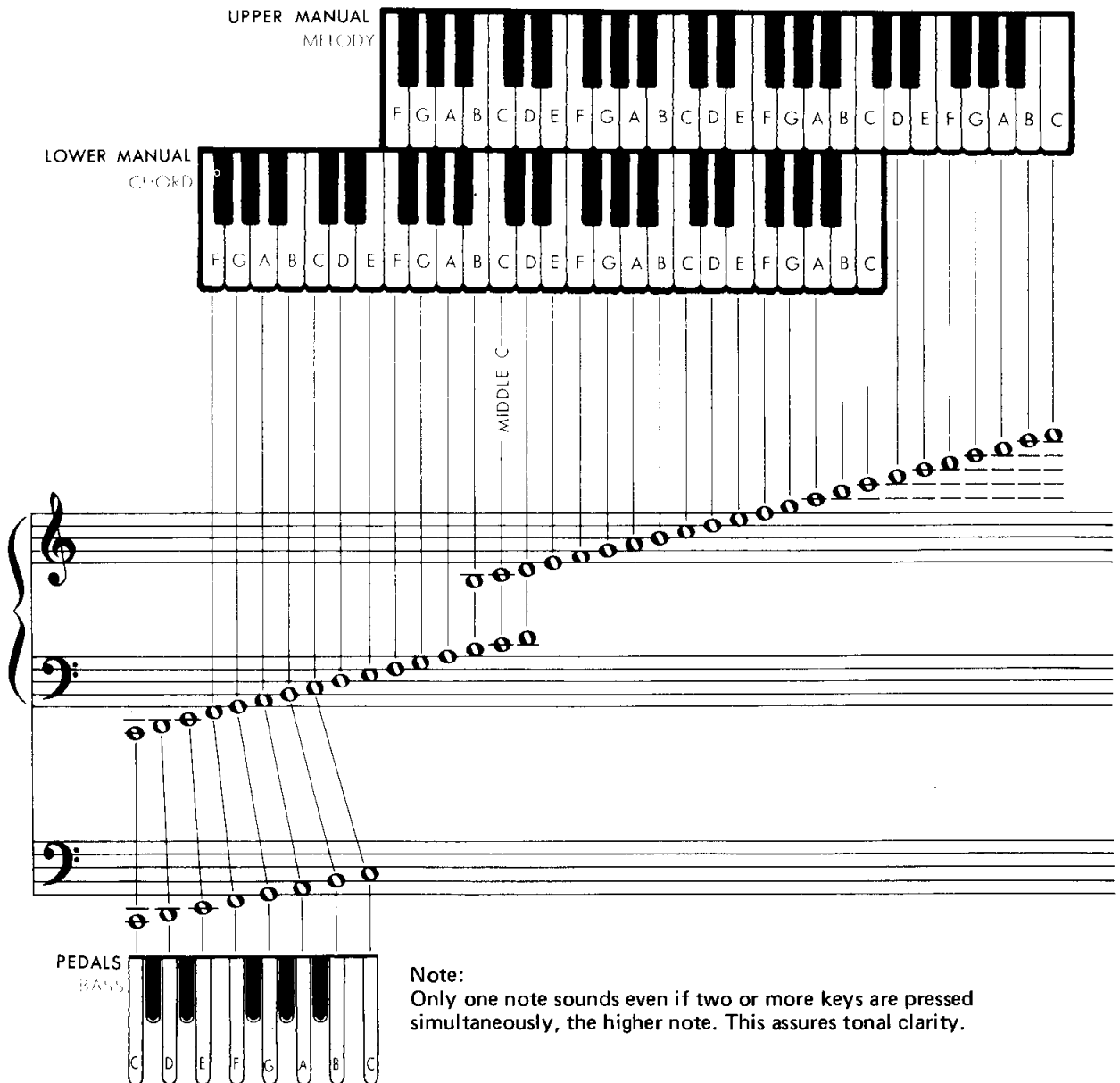
Keyboards

The B-30AR has three keyboards. The upper two are called "manuals" and the lower one, played with the feet, "pedals." They have keys and octaves as follows:

Upper Manual	44 keys (3 ² / ₃ octaves)
Lower Manual	44 keys (3 ² / ₃ octaves)
Pedals	13 keys (1 octave)

The B-30AR is designed to permit playing the melody on the upper manual with the right hand, the chords on the lower manual with the left hand, and bass notes on the pedals with the left foot.

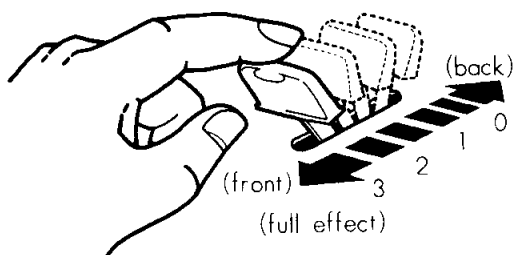
All keys are arranged in the keyboard method layout shown below. Each white key has a name (from C to B), and the blacks are sharps or flats.



Note:
Only one note sounds even if two or more keys are pressed simultaneously, the higher note. This assures tonal clarity.

Tone Levers

To the left of the upper and lower manuals are series of tone levers which control the Electone voices that will sound when the keys are depressed. They are divided into groups for upper, lower and pedals, so that different registrations can be set for each.



Upper Manual Levers	10 voices
Lower Manual Levers	6 voices
Pedal Levers	3 voices

Each lever provides two methods of control. One is by continuously moving the lever from off to full, to achieve the exact setting for that tone, and thus balancing the overall tone setting with perfect precision. Each lever also has two easy-to-feel click stops, at 1/3 and 2/3 positions. This lets you refine any setting with mathematical precision and no guesswork in a matter of seconds.

PITCHES OR FOOTAGES

The B-30AR has four different pitch levels, indicated by the numbers 16', 8', 5 1/3', 4', 2 2/3' and 2'. These are standard musical abbreviations showing the tone's pitch in relation to the fundamental (written note). An 8' tone will sound just as it has been written. As the numbers increase, the tones lower. A 16' tone will provide a tone exactly one octave lower than the written note.

Similarly, 2 2/3' tones are one octave higher than the written note, 2' tones are one octave and a fifth higher than the 4' fundamental.

Upper Preset Tones

To the left of the lower manual are eight Upper Preset Tone selectors (seven tones plus Cancel). These on/off switches are special tonal blends that most closely resemble the instruments they name (Accordion, Piano, Vibraphone, Banjo) as well as three special preset combinations.

Since these buttons are factory preset, they automatically cancel all other upper manual tone lever settings. This lets you switch back and forth. In addition, precedence is to the right. This means that if two or more buttons are pressed, the one to the right will take effect. To switch from one button to another it is not necessary to first press the cancel button.

Note: Upper Sustain control lever does not work with the Accordion, Piano, Vibraphone and Banjo preset selectors.





Brilliance

With this single, continuously-variable control you can pinpoint the degree of overall softness or clarity desired for any mood of music.

Vibrato

Vibrato is a wavering of the tone. You will see violin and cello players use it freely by an oscillating motion of the left hand. It increases the emotional quality of the violin tone. This vibrato lever produces the same vibrato effect.

Repeat Speed

Cuts and repeats each note just like the double-strumming effect of a mandolin. The lever provides continuous speed adjustment to create a full variety of different moods. Affects upper manual notes only.

Upper Percussive

Changing the beginning of some or all notes can do wonders for lively selections. Your Electone's percussive effects provide subtle but important shading at the moment each note is heard. The special popping 4' and 2 $\frac{2}{3}$ ' percussive drive can be smoothly blended into all upper manual tones with two variable levers, and a separate lever regulates the length of decay for this effect.

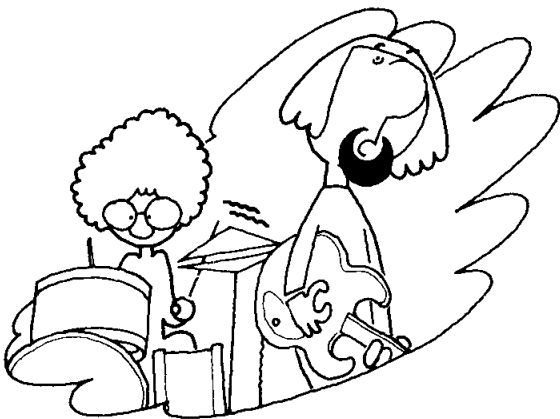
Note: If Upper Percussive 4' is set at the same time as Upper Sustain, no sound will be heard.

With percussive, use a staccato fingering. Each note should be played cleanly; slurred notes will diminish the percussive impact.

Percussion

LOWER BRUSH, PEDAL CYMBAL

Provide lively brush (hissing snare drum brush) and cymbal percussion sounds with each lower manual or pedal note.





Reverb

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

Sustain

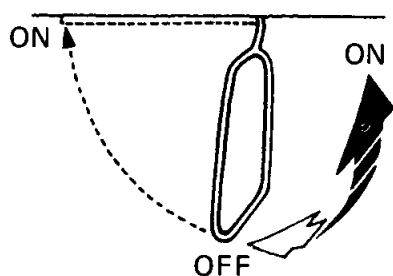
UPPER, PEDAL SUSTAIN

These controls provide continuous adjustment of the sustain effect on the upper manual and pedals concerned. For the pedals, this is the only sustain control, and it affects all pedal tones with the exception of Bass Guitar, while for the upper manual this control is only a length adjustment. Length of upper sustain is controlled by the upper sustain control knob as explained beside.

Upper 8', 4' Sustain

When this is switched on, the sustain effect is evoked. As the name of the tab implies, only 8' and 4' tones are affected. The length of such sustain is set by the Upper Sustain control.

Note: When combined with Upper Percussive 4', all sound is cancelled.

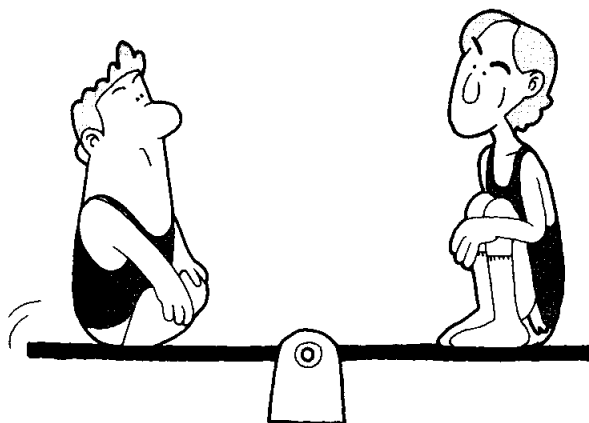


KNEE LEVER

This lever is operated with the right knee for instantaneous implementation or stop of the sustain effect preset by the sustain control and selector, allowing passage-by-passage or even phrase-by-phrase sustain control precision.

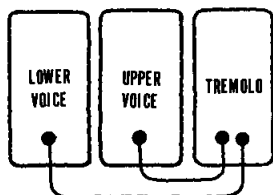
Manual Balance

This control governs the volume strength of the upper and lower manuals. It is normally left in the center position, but can be shifted to stress the melody or accompaniment in a selection or passage. This control can also be used to compensate for a higher number of total tone lever settings (which would ordinarily result in higher volume) on one of the two manuals.

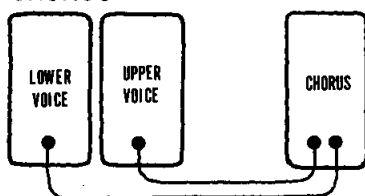




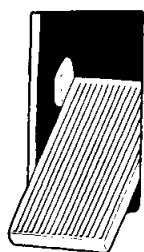
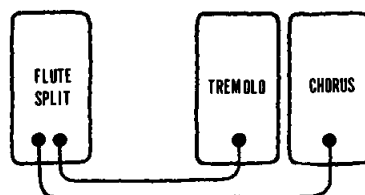
TREMOLO



CHORUS



FLUTE SPLIT



Expression Pedal

Tremolo/Chorus

The Electone's special tremolo is produced by a rotary speaker that actually spins just behind the rotary speaker grille on the side of the cabinet.

The tremolo selector is complemented by a continuous tremolo speed control knob.

When the speed control is set to its maximum position, the Tremolo will turn the speaker at normal revolution. The Chorus will turn it at one revolution. Once either tablet is switched on, it takes several seconds for the rotary speaker to attain the standard speed. This is also true when switching to a slower speed (Tremolo to Chorus), the speed variation will be heard in the music.

If you wish an instant tremolo or chorus sound, be sure to switch on that tablet well in advance of the speaker selector. For special selections you can use this speed variation by switching the speaker on first, the Tremolo or Chorus switch later.

Note: Only Tremolo is produced when Tremolo and Chorus are switched on simultaneously.

UPPER VOICE

Lets you divert upper manual voices from the main to the rotary speaker.

LOWER VOICE

Does the same for lower manual voices.

FLUTE SPLIT

This tablet feeds Flute voices of the upper and lower manuals and preset Combinations to the rotary speaker. Combined with other manual voices through the main speaker it creates a rich, singing blend.

Note: Only Flute Split is produced when Flute Split and Upper or lower Voices are switched on simultaneously.

Expression Pedal

Push down the pedal to control the volume of each note or phrase. This pedal is extremely important for adding emotion to your playing. The pedal is balanced to stay in any position once set. Rest the entire right foot on the pedal and relax it, pressing with the toe to increase volume, with the heel to decrease it.

Master Volume

This control determines the maximum volume obtainable by depressing the expression pedal.

Auto Rhythm Section



This section provides eight catchy rhythms, each one called forth by a simple button. You can also create more rhythm variations with the variation button. In addition to a combined volume and balance knob, tempo control and tempo indicator light, there are two other switches: ordinary Start and the Yamaha Synchro-Start which begins the rhythm accompaniment on the first beat of a measure when the first lower manual or pedal note is struck. A foot switch fitted in the expression pedal housing lets you stop and restart the rhythm at any point during play.

NORMAL START

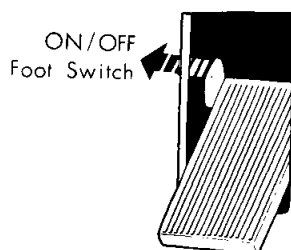
For instant rhythm at the beginning of a selection. Push the rhythm selector desired, then flick the Start switch on.

SYNCHRO-START

Select the rhythm, switch on the Synchro-Start and begin to play once you have the tempo established. The rhythm will begin as soon as you strike a lower manual or pedal note. This switch permits you to lead in with a rhythm-free melody at first if so desired.

You can switch off the Auto Rhythm with the foot switch.

When you wish to continue hearing the Auto Rhythm, be sure to switch on with the foot switch.



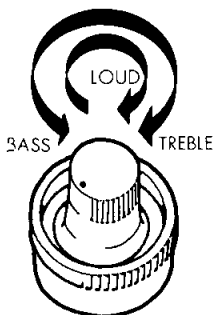
RHYTHM FOOT SWITCH

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.

Note: If the foot switch has been used, be sure it is reset to normal after you finish playing your selection, and then make sure both Start and Synchro-Start switches are off. Otherwise you may turn on one of the switches in the middle of a new number only to find the rhythm still canceled.



TEMPO



VOLUME — BALANCE

TEMPO

The tempo of the Auto Rhythm section can be adjusted by a continuous control knob. This is best accomplished by turning on the Synchro-Start switch.

Although no sound will be produced, the indicator lamp will flash each quarter note, letting you visually check the tempo while you adjust.

BALANCE

This control lets you balance the low rhythm sounds, such as drums, and the high sounds (i.e., cymbals) according to your taste and the selection. It can make a big difference even when using the same rhythm. Turn the knob to the right to accentuate the higher (treble) sounds, to the left for lower (bass). If you accentuate the treble sounds the rhythm becomes brighter.

Check the playing hints for specific settings.

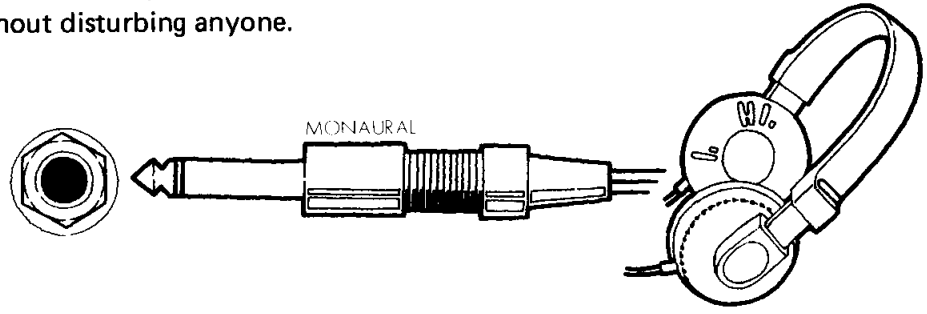
VOLUME

Use it to balance the volume of the rhythm section and the manuals. This volume is then varied during the selection by the expression pedal, just like that of the other tones.

To Fully Enjoy Your B-30AR

HEADPHONE

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



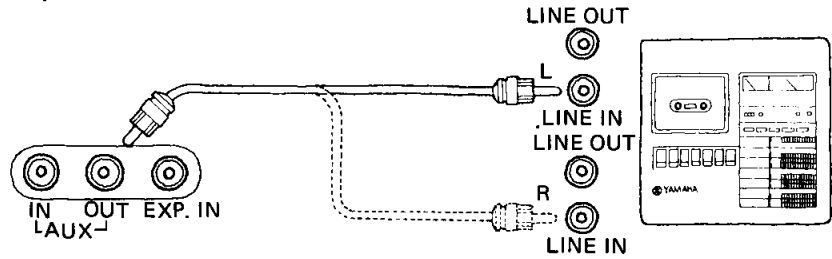
EXP. IN

This jack accepts any sound source and reproduces it through the B-30AR's speakers.

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

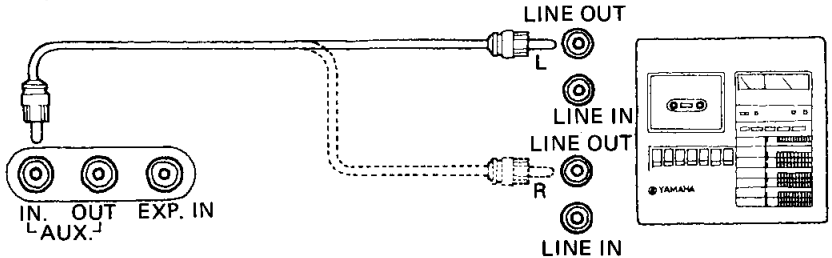
AUX OUT

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



AUX IN

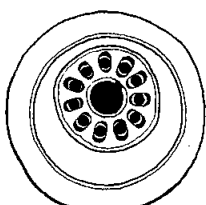
For playback, connect the AUX IN jack with the tape-deck's LINE OUT jack. Control the playback levels on the tape-deck.



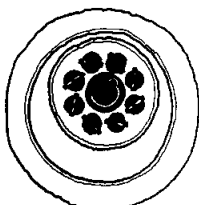
Note: These sound sources (Tape recorder etcetera) are not affected by the expression pedal.

TONE CABINET

These sockets are on the rear panel. Use it to connect a Yamaha Tone Cabinet, without any rewiring required.



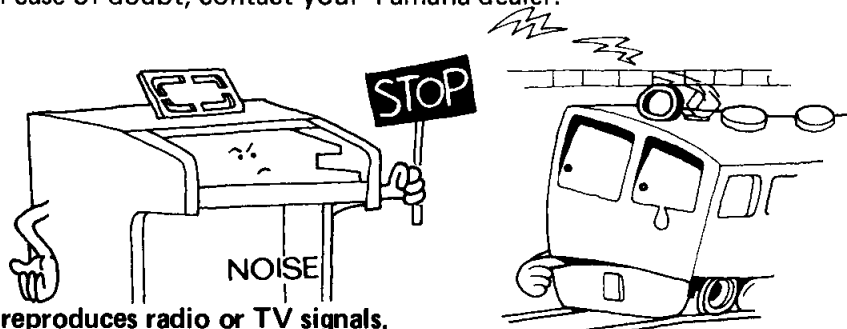
SPLIT



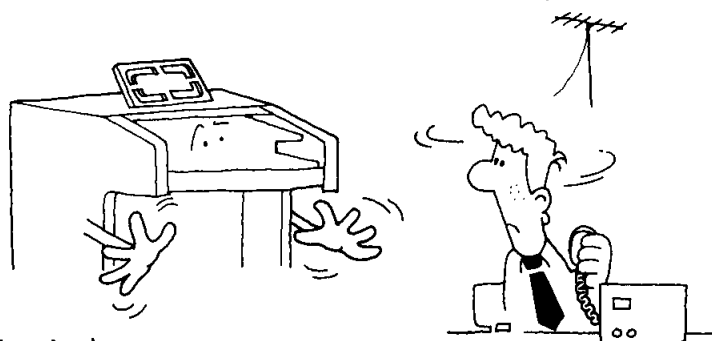
GENERAL

Electone is not out of order If ...

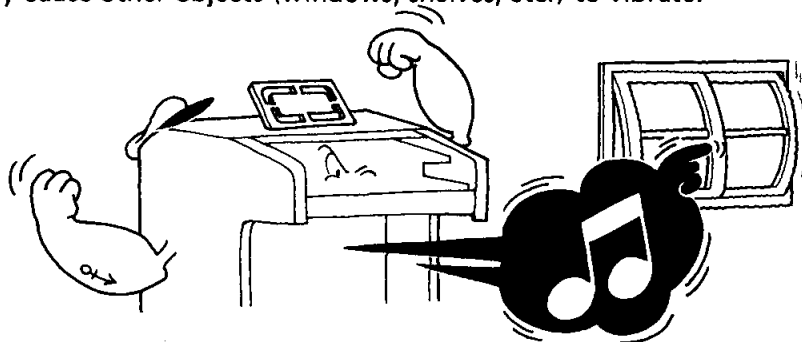
1.the set does not go on when the power switch is turned on. Check the following.
Is the AC plug fully inserted into the electric wall outlet? Reinsert it to be sure. Is there power coming from that outlet?
If there is power in the outlet but the Electone does not play, unplug the cord and contact your Yamaha dealer. There are NO USER SERVICEABLE PARTS inside.
2.a sound should occur the instant you turn on the switch.
This merely indicates normal operation consequent to a surge of electricity in the main amplifier.
3.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 to blame.
If the cause is a fault in a neon or fluorescent lighting fixture, it should be repaired. When the cause is unknown, or in case of doubt, contact your Yamaha dealer.



4. 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.



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, shelves, etc.) to vibrate.



6.pedal notes sound too high, upper manual notes too low. This is especially noticeable when comparing the Electone and piano. Piano tones are combinations of harmonics and must interact with their surroundings, while Electone harmonics are simpler (multiples of the fundamental tone), requiring the Electone to be adjusted differently at the assembly stages.

Specifications

KEYBOARDS

Upper Manual	44 keys f ~ c4 (3 ² / ₃ octaves)
Lower Manual	44 keys F ~ c3 (3 ² / ₃ octaves)
Pedals	13 keys C1 ~ C (1 octave)

TONE LEVERS

Upper Manual	Flute	16'
	Flute	8'
	Flute	5 ¹ / ₂ '
	Flute	4'
	Flute	2'
	Flute	2'
	Trombone	16'
	Oboe	8'
	String	8'
	String	4'
Lower Manual	Flute	8'
	Flute	4'
	Flute	2'
	Horn	8'
	Cello	8'
Pedals	Cello	4'
	Bass	16'
	Bass	8'
	Bass Guitar	

EFFECT LEVERS

Brilliance (Upper)
Repeat Speed (Upper)
Vibrato (Upper / Lower / Pedal)
Percussive 4', 2 ¹ / ₂ ' (Upper)
Percussive Length

TREMOLO

Flute Split
Upper Voice
Tremolo
Chorus

PRESET TONES

Upper Preset 1, 2, 3
Accordion, Piano, Vibraphone, Banjo

PERCUSSIONS

Lower Brush
Pedal Cymbal

AUTO RHYTHM SECTION

Rhythm Selectors	
March	Waltz
Swing	Slow Rock
Jazz Rock	Rhumba
Bossanova	Samba
Variation	

RHYTHM CONTROLS

Normal Start
Sunchro-Start
Rhythm Stop (Foot Control)
Tempo
Volume
Tone Balance
Tempo Indicator

OTHER CONTROLS

Expression Pedal
Master Volume
Knee Lever
Tremolo Speed Control
Power Switch

OTHER FITTINGS

Headphone Jack
Exp. In
AUX IN, OUT
Tone Cabinet
Power Indicator
Rolltop Fallboard
Music Rest
Matching Bench

SPEAKER

Main (3):	30cm (12"), 20cm (8"), 5cm (2")
Tremolo(2):	16 x 23cm (6 ¹ / ₂ x 9"), 5cm (2")

CIRCUITRY

Solid State (incl. LSIs and ICs)	
Output Power:	15 watts (RMS)
Power Consumption:	80 watts
Power Source:	50 / 60Hz, AC

DIMENSIONS

Width:	118cm (46 ¹ / ₂ ")
Depth:	62cm (24 ¹ / ₂ ")
Height:	90cm (35 ¹ / ₂ ")


WEIGHT 75 kg (164lbs.)

FINISH Natural American Walnut Grain

Specifications subject to change without notice.

Special Instructions for British-Standard Model

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

The wire which is coloured **GREEN-and-YELLOW** must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  or coloured **GREEN** or **GREEN-and-YELLOW**.

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**.

IMPORTANT

THE WIRES IN THE MAINS LEAD ARE COLOUR-CODED IN ACCORDANCE WITH THE FOLLOWING CODE.

GREEN-AND-YELLOW:	EARTH
BLUE:	NEUTRAL
BROWN:	LIVE

WARNING:

THIS APPARATUS MUST BE EARTHED.

SINCE 1887



YAMAHA

NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN