

GUIDE  
TO  
YOUR  
YAMAHA  
ELECTONE  
B-6E SERIES



SINCE 1887

**NIPPON GAKKI CO., LTD.**

Hamamatsu, Japan

# **ELECTONE**

## **B-6E** SERIES

# **PLAYING**

# **GUIDE**

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# Introduction

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We of Yamaha wish to thank you for selecting one of the Electone B-6E series. We feel sure that you will realize many happy years of playing enjoyment with this instrument. Please read this guidebook for more complete enjoyment of all of the B-6E's special characteristics. We would suggest that you occasionally re-read it from time to time as you progress.



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## The answer to the TV set in family togetherness

Unstinting home organ versatility—even a built-in rhythm band if you want—that's the exciting Electone B-6E.

Whether you're interested in teaching your children the joys of musical appreciation, or in treating the whole family to an all-round music centre replete with expressive possibilities, the B-6E is in so many ways a unique musical instrument.

Hear for yourself its rich tonal beauty, experiment with the envelopping throb of the exclusive Yamaha Spacious Sound Tremolo. Then try the world-famous Electone Tone Lever System; it takes the guesswork out of musical expression for young and old alike, thanks to three easy-to-find click-stop settings that make favourite tone combinations extra-easy to reset.

In the mood for rhythm? Model B-6ER offers an all-new Auto-rhythm section with seven exciting beats plus synchro-start.

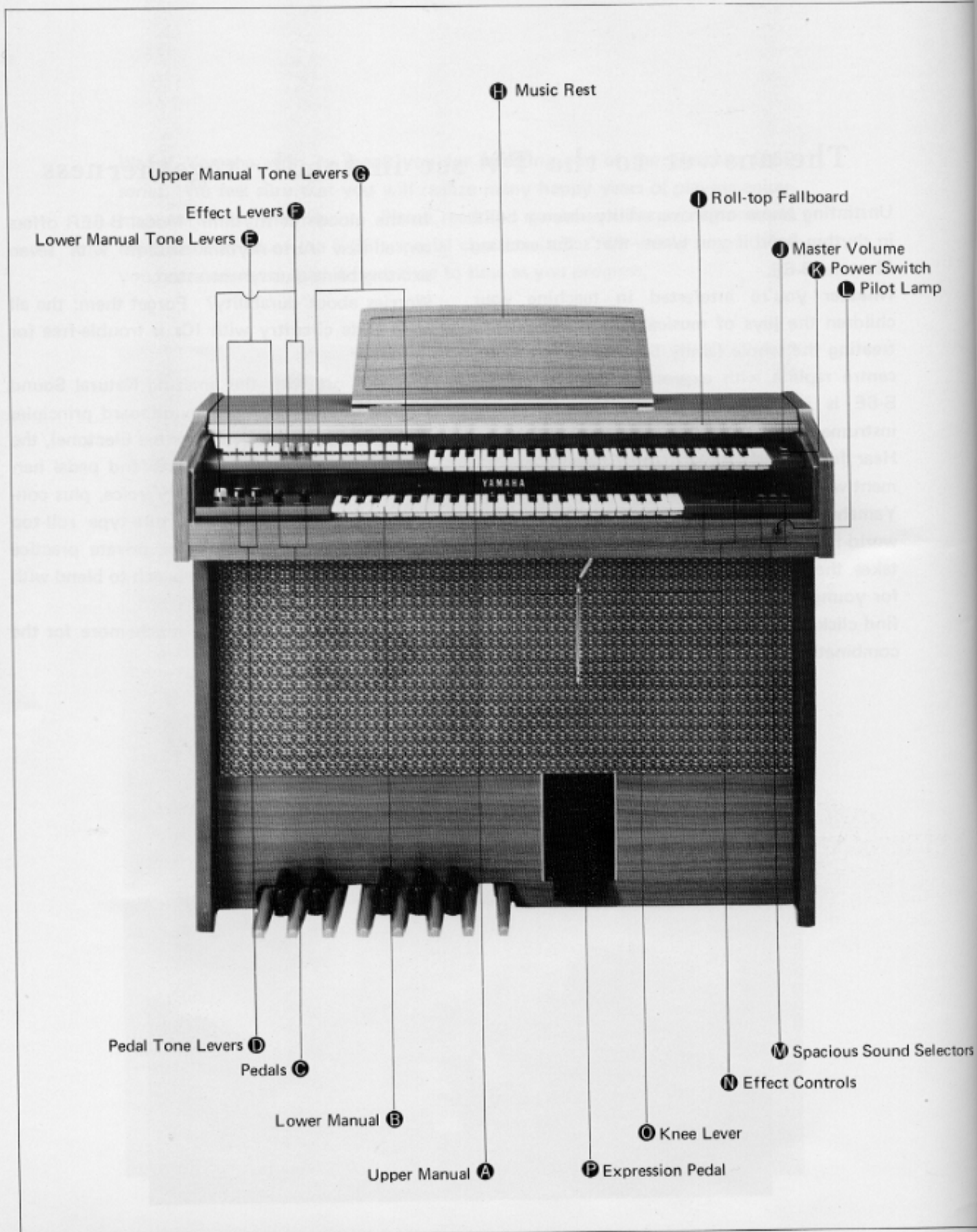
Worries about durability? Forget them: the all solid state circuitry with ICs is trouble-free for decades.

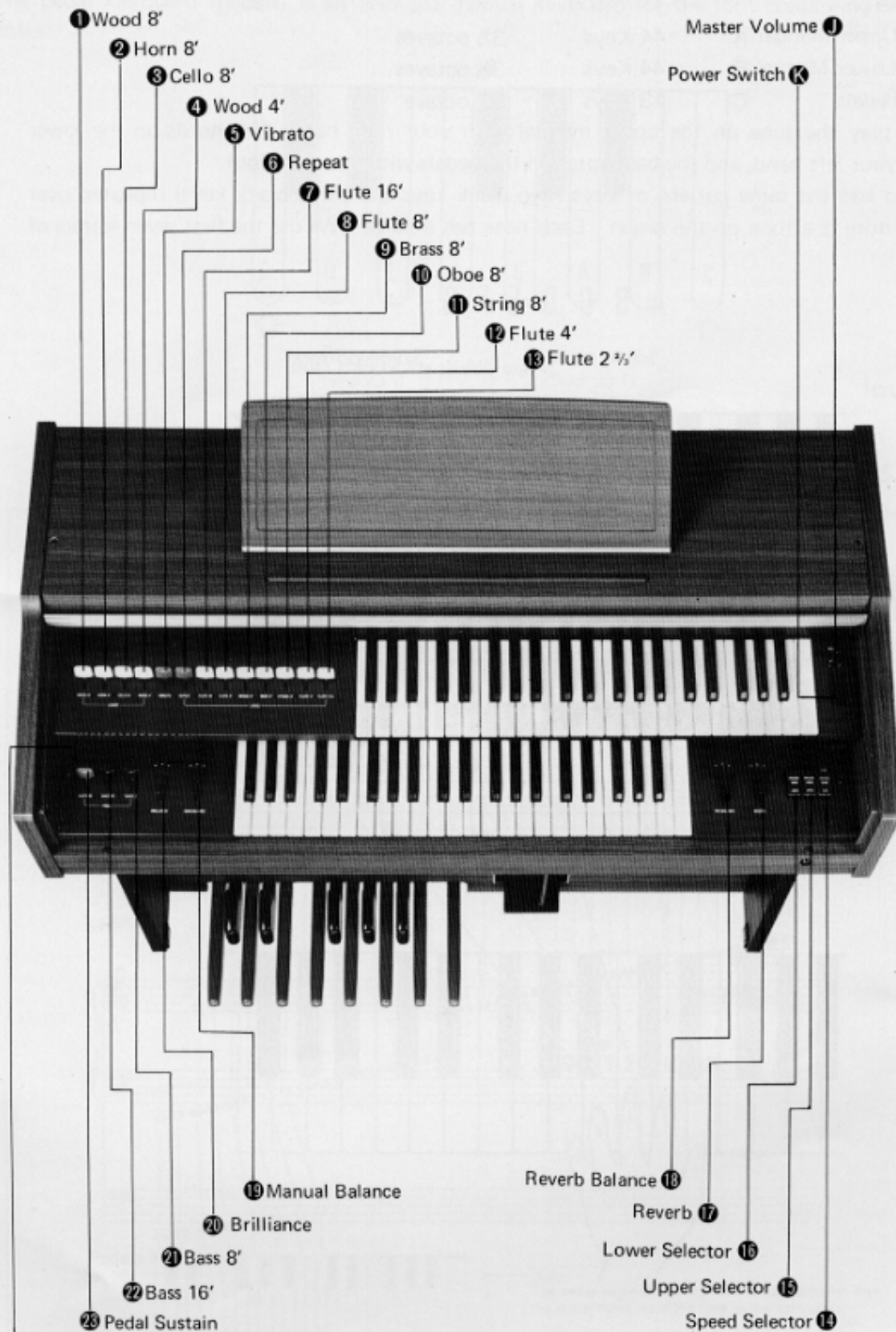
Top this off with the amazing Natural Sound speaker (based on piano soundboard principles and developed exclusively for the Electone), the majestic depth of upper, lower and pedal harmonics and a unique flute  $2\frac{2}{3}$ ' voice, plus convenience extras like a furniture-type roll-top fallboard, headphone jack for private practice and cabinetry and matching bench to blend with the most distinctive decor.

Yamaha Electone B-6E: so much more for the whole family.



# Here is your Yamaha Electone B-6E





Auto Rhythm Section (B-6ER only)

NOTE : The circled numbers refer to explanatory section in the text to follow.

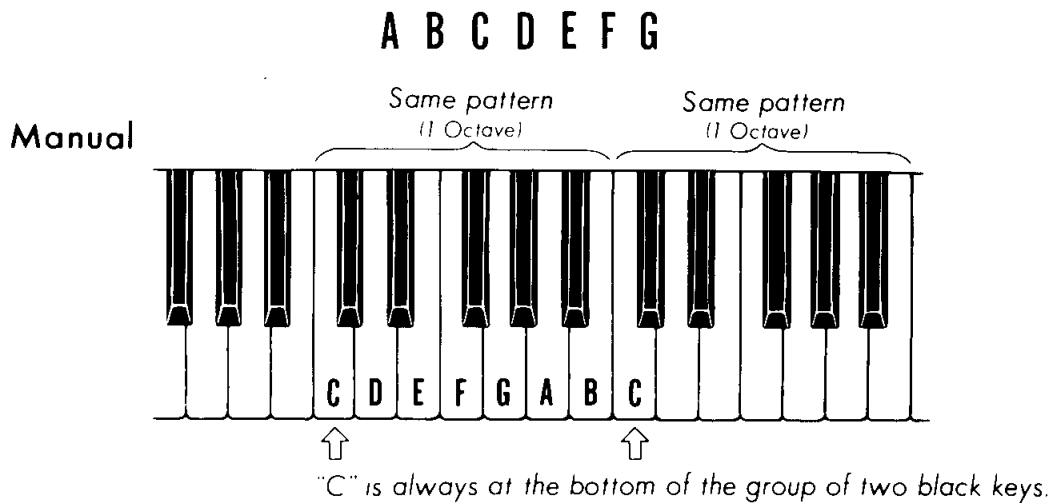
# Keyboards

The Electone B-6E has THREE KEYBOARDS. Two of them are called "MANUALS" and the rest is called "PEDALS".

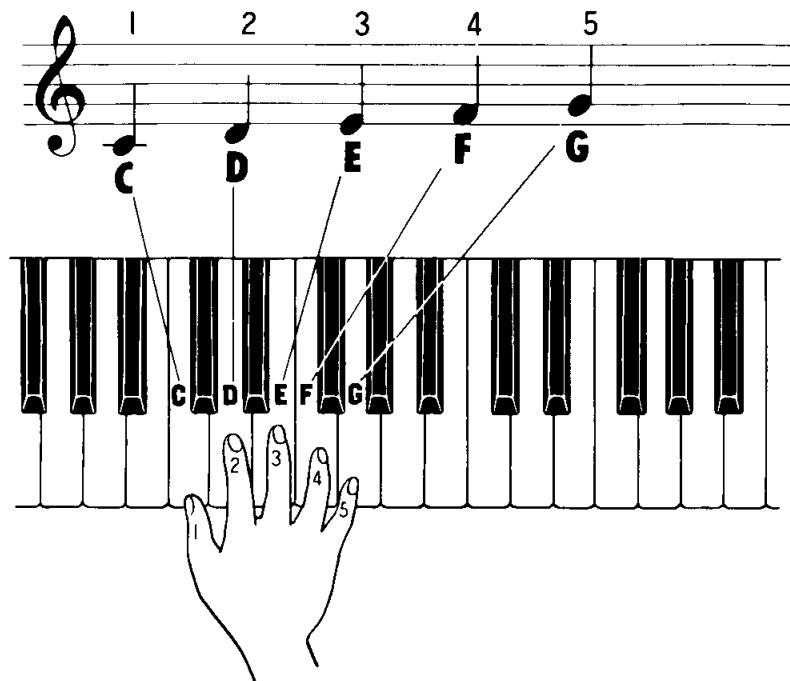
Upper Manual (A)	44 Keys	3 $\frac{2}{3}$ octaves
Lower Manual (B)	44 Keys	3 $\frac{2}{3}$ octaves
Pedals (C)	13 Keys	1 octave

So, you can play the tune on the upper manual with your right hand, the chords on the lower manual with your left hand, and the bass notes on the pedals with your left foot.

The keyboard has the same pattern of keys (two black keys and three black keys) repeated over and over. A note is a tone on the organ. Each note has a name. We use the first seven letters of the alphabet:

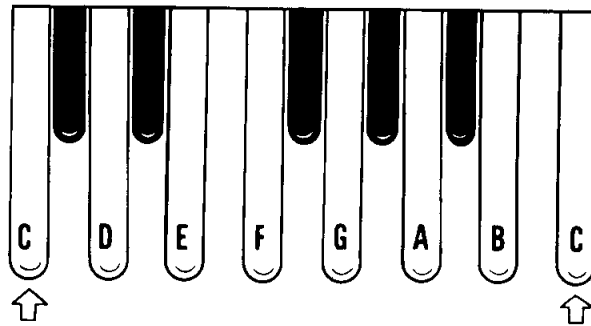


Let's see how the letter name of the notes match the letters on the keys.



## Pedals

The pedal keyboard (pedals) is an enlarged manual keyboard for the foot containing one octave of notes.



Both ends of the pedals are "C."

## The Compass of the Electone B-6E Series

Upper manual  
FGABCDEF GFGABCDEF GFGABCDEF GFGABCDEF GFGABCDEF GFGABC

Lower manual  
FGABCDEF GFGABCDEF GFGABCDEF GFGABCDEF GFGABCDEF GFGABC

YAMAHA

Middle C

Tuned to 440 Hz

Pedals  
C<sub>1</sub> C C

Note  
The pedal keyboard notation is one octave higher than the actual notes, as in the case of the contrabass



# Tone Levers

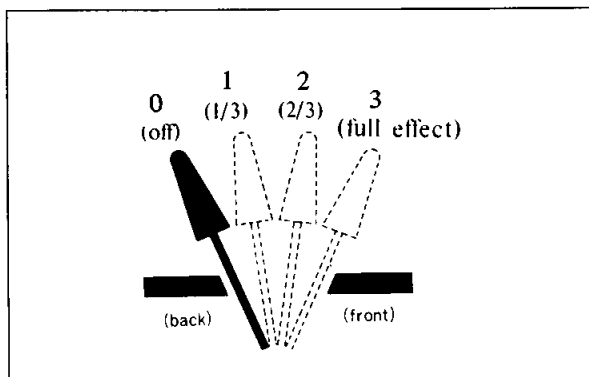
On the control panel to the left of the upper and lower manuals of the Electone are arrayed the tone levers. They are divided into three groups:

- (1) Upper Manual Tone Levers **G**: 7 voices
- (2) Lower Manual Tone Levers **E**: 4 voices
- (3) Pedal Tone Levers **D**: 2 voices

## Yamaha's Exclusive Tone Lever System

Each tone lever serves to impart a distinctive tonal quality to each note played. However instead of the usual simple on-off action of other systems, the Yamaha tone lever offers the unique advantage of continuously variable control. This means that even the finest shadings of volume control can be obtained from each and every lever, surely an amazing advantage in breadth of expression and ease of playing. For quick changes, another aid to precision is provided: As the tone lever is pulled, two 'click-stop' positions are felt, where the lever catches slightly. These indicate 1/3 and 2/3 of the maximum setting attained when the lever is fully depressed.

This exclusive Yamaha tone lever system allows the combination of these tones giving a virtually limitless range of tone, with a full spectrum of rich harmonics. The Electone B-6E is thus able to satisfy even the most demanding professional organist.



The most important point in developing good tone registration is the early mastery of the tone levers. Make it a practice to listen to good music and build your "taste" for sounds so that you can use the tone levers in combination. Experiment in the creation of tone colors to suit your own taste.

This use of the tone levers for volume control is also useful in adjusting the balance among the three keyboards.

## How does each Tone Lever sound?

### Upper Manual Tone Levers **G**

#### Flute 16' : ⑦

In the Electone B-6E an even greater richness and vibrancy has been added to the flute voice. A new harmony and beauty can also be achieved with other voices, as the result of the unstinted use of transistorized components in designing a completely new tone filter. When the Flute 16' tone lever is pulled together with any 8' voice, a flute tone one octave lower will be added to the fundamental 8' tone (i.e., the note as played on the manual). This lower note will give added harmonic breadth, and provide great depth to a selection of music.

#### Flute 8' : ⑧

The flute is originally an open-pipe woodwind with a strong fundamental and relatively small harmonic component. It thus gives a simple yet darkened feeling to the mood of the music.

#### Flute 4' : ⑫

The sound of the flute one octave higher than 8' tone. When this tone is added to the fundamental, the sound becomes more vivid, and by lessening the 8' component or playing the 4' alone, the range can be extended one octave higher.

## Flute 2 $\frac{2}{3}$ ' : ⑬

This gives a flute tone a fifth above the octave of the fundamental and the resulting richness of tonal quality brings a new dimension to the interpretation.

## Brass 8' : ⑨

Harmonics multiply and remultiply toward the upper registers to produce a rich, penetrating sound that recalls the brilliant clarity of the brass instruments.

## Oboe 8' : ⑩

This lever lessens the fundamental and enriches the harmonics to produce the plaintive, haunting timbre characteristic of the double reed woodwinds. It is excellent in adding harmonic color to quiet passages and, when combined with a string tone, produces an extremely clear but penetrating effect.

## String 8' : ⑪

The wealth of harmonic color which can only be achieved by the higher stringed instruments.

## Lower Manual Tone Levers ⑤

### Wood 8' : ①

This is a characteristic tone of the woodwind instrument. It is rather simple, but with a slightly stronger harmonic component to produce a brighter tone than the Flute 8'.

### Wood 4' : ④

An octave higher wood wind tone. Particularly suited to bringing out with clarity, melodic played on the lower manual. Of course, it may also be used to broaden the range of the lower manual.

### Horn 8' : ②

Overtone multiply to produce the rich, smooth texture of the horns.

### Cello 8' : ③

Rich harmonics blend to produce the soft, mellow tone characteristic of the cello.

## Pedal Tone Levers ④

### Bass 16' : ⑫

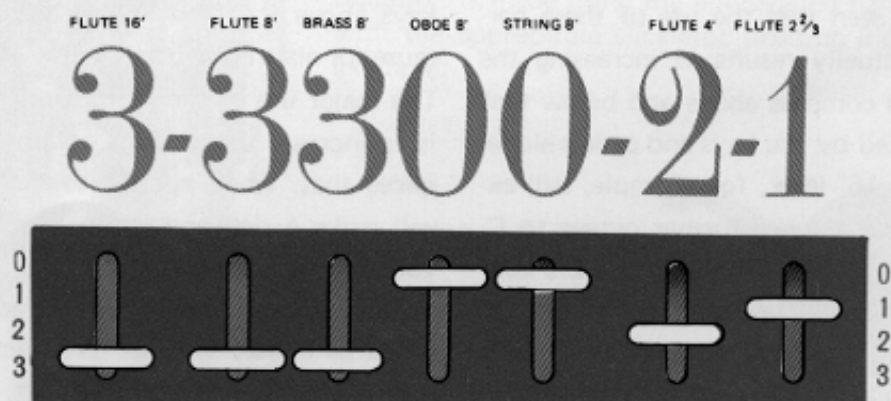
With great penetrating power, this lever sounds the lowest reaches of the B-6E's compass.

### Bass 8' : ⑪

By pitching the note an octave above the Bass 16' this lever allows a clearer penetration of bass sound, and thus permits melody to be played on the pedals.

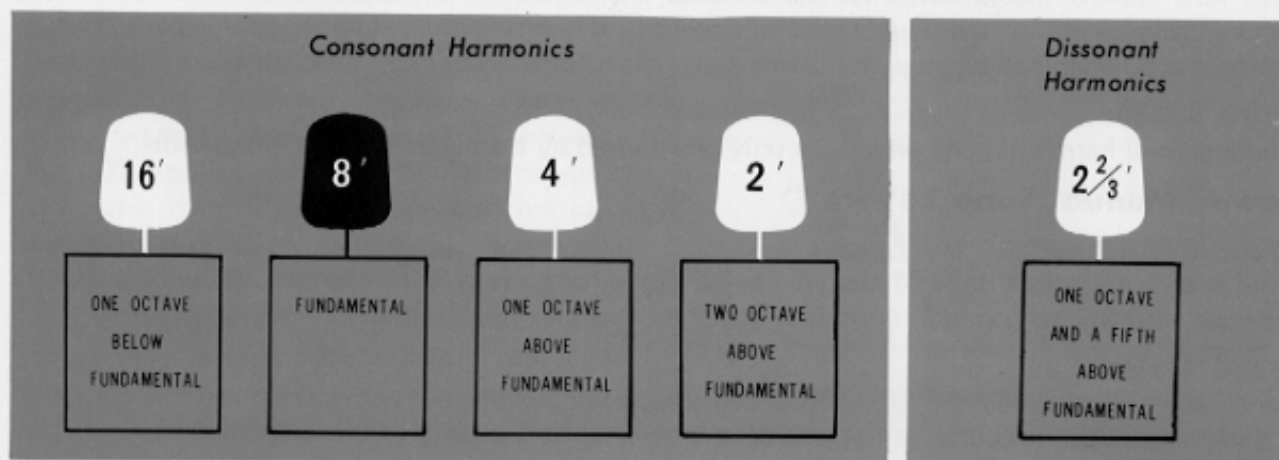
## Tone Lever Registration

Tone lever registration is given by numerical indications which show the click-stop position of each lever, as illustrated below. The indications are in the order in which the levers appear on the control panel, with hyphens separating harmonic groups.

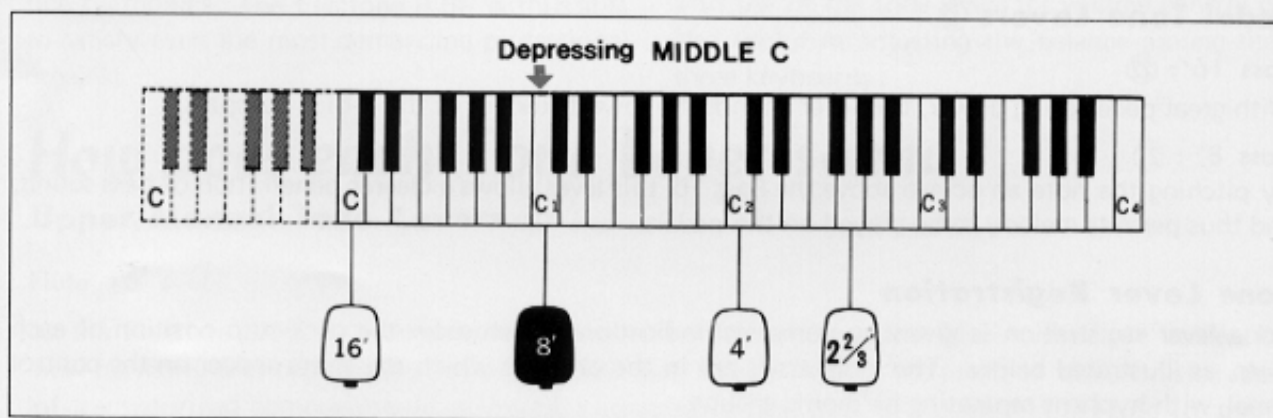


# Harmonics

Tone levers are of several varieties: 8', 16',  $2\frac{2}{3}'$ , etc., each variety having a different pitch. The 8' tone levers are "fundamentals", that is, they have the same pitch as the written note (see the *Compass Chart, page 7*). The others, called "harmonics", are pitched a certain interval above or below the fundamental. Harmonics can be further subdivided into *consonants*, at octave intervals from the fundamental, and *dissonants*, separated by a third or a fifth from the fundamental.



As an example of what this means when you play, let us see which note can be produced by using one of the tone levers and pressing the key of middle C ( $c_1$ ). Pressing middle C and using the 4' tone lever, for example, will result in the same note as would be produced by pressing  $c_2$  (using the 8' tone lever, i.e., its fundamental)



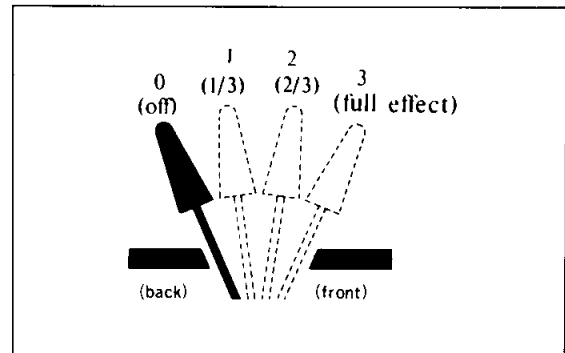
It can thus be seen that the use of these harmonic levers actually results in increasing the Electone B-6E's compass above and below that which is indicated by the keys and pedals alone. The use of the 16' lever, for example, will extend the manuals down a further octave to C, (see dotted line above). Similarly the  $2\frac{2}{3}'$  lever raises the tone one octave and a 5th but, in actual practice, the highest note on the B-6E is  $c_3$ . Thus Flute  $2\frac{2}{3}'$  voice is not obtainable from

keys above F in the highest octave. This is no cause for alarm (see page 19).

The major use of the harmonic levers, however, is to increase the richness of tone—they are the spices that, when applied to the fundamental, will make a rich and savory performance. Let your ear be your guide to the creation of good music. Always remember not to overuse this effect as it may weaken its effectiveness. Use it primarily only for special effect.

# Effect Levers

Red effect levers (F) of the Electone B-6E provide a wide range of tonal effects which add to the breadth and variety of possible interpretations. These levers have the same operation as the tone levers and allow the organist to vary the depth of their effects according to their stop positions, as illustrated.

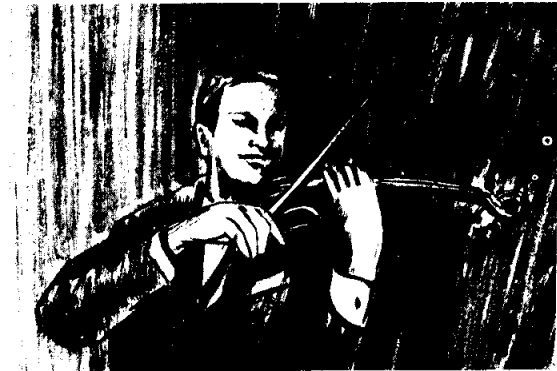


## Vibrato : (5)

Vibrato is a scarcely noticeable waving 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. Use of this lever will add a charming and lively air to the tone of your Electone.

## Repeat : (6)

This lever works with any or all upper manual tone levers for a variety of musical shades: from melancholy to lively. It gives the same tremolo effect as a mandolin by cutting and repeating each note.



## Pedal Sustain : (23)

This lever works with the 8' and 16' Bass voices.

The same Yamaha Variable Lever System works to provide longer bass pizzicato effects plus a continuous selection down to an expressive staccato.

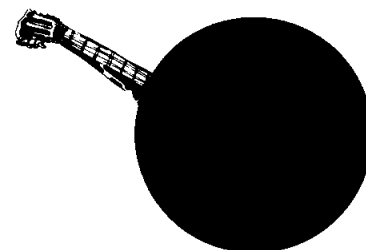


## Effect Lever Registration

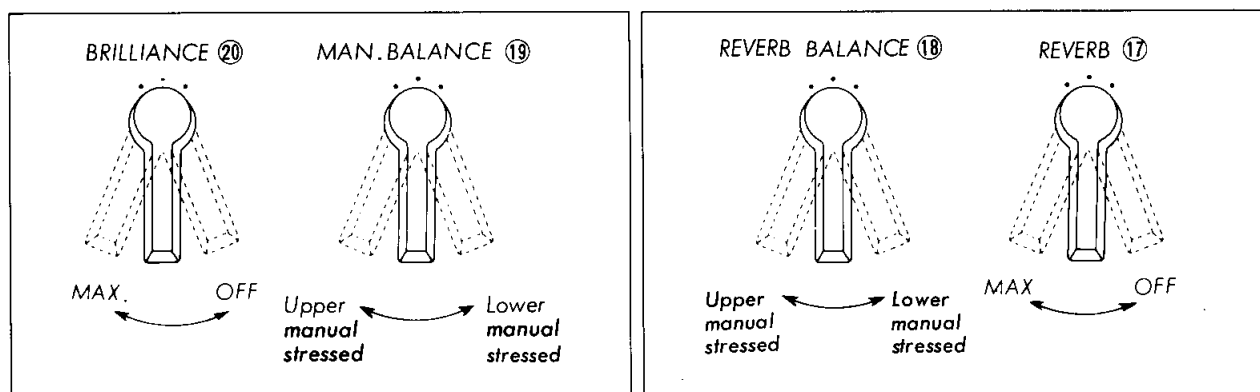
	abbr.
Vibrato .....	Vib.
Repeat .....	Rep.
Pedal Sustain .....	P.S.

Notation is made using the abbreviated name of the lever with the appropriate click-stop position indication as, for example:

Vib. 3 Rep. 2 P.S. 2



# Effect Controls



## Reverb : ⑰

Reverberation is the quality that makes your playing sound full and rich as if you were playing in a large auditorium or hall. The use of this effect, therefore, allows you to attain this grandeur at will, evoking the aura of professional performance in your own living room. The control includes a regulator so that the strength of the reverberatory effect can be varied continuously softer or louder as the music requires. For passage-by-passage, or even phrase-by-phrase reverb control, the Knee Lever ① should be operated with the right knee. (See page 14.)

## Reverb Balance : ⑱

To balance the Reverb effect between the Upper and Lower Manuals; when used to strengthen the Upper Manual, it brings you an effect similar to SUSTAIN on more expensive models.

## Manual Balance : ⑲

Governs the relative strength of the upper and lower manuals. It is normally left in the center position. But when it is desired to strengthen one manual, for example, when the upper manual plays a melody and the lower its accompaniment, the knob can be turned (in this case to the right) to emphasize the upper manual. Similarly, the control is turned to the left when strongly played accompaniment is required or when the melody is played on the lower manual and requires greater emphasis.

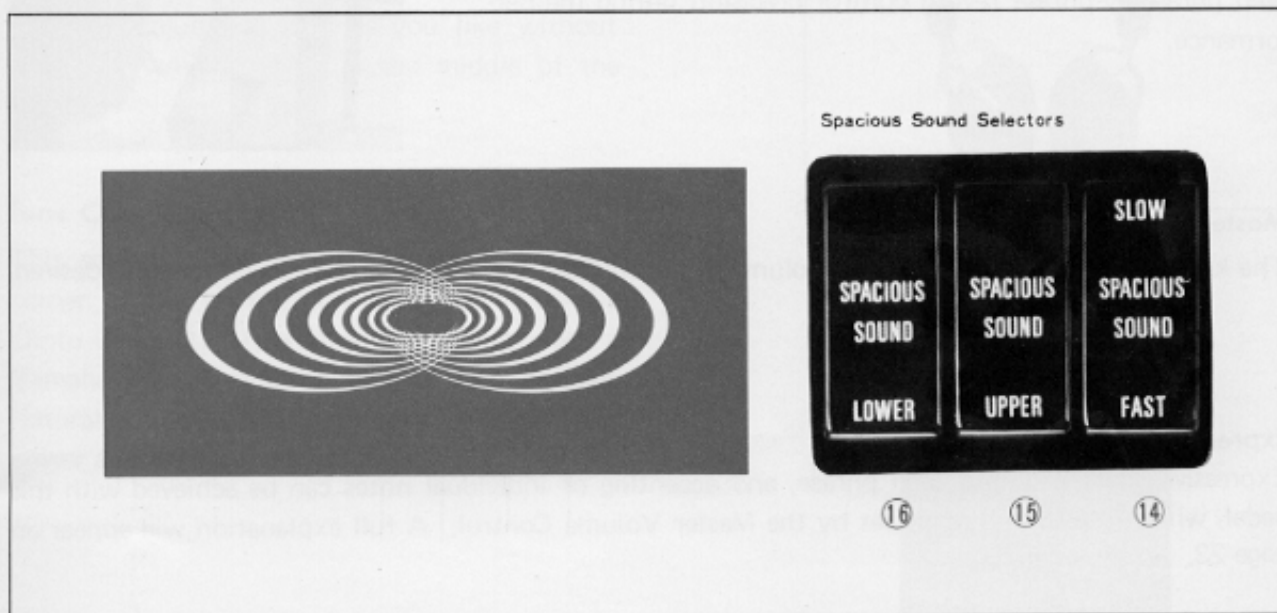
## Brilliance : ⑳

This is used to obtain the difference in mood necessary in the performance of quiet, sombre works or in the production of brighter, richer tonal effects. When this control is set to OFF (to the left), a softer, more mellow tone is imparted, reminiscent of muted violins. This effect can also resemble the distant sound of a flute played pianissimo. On the other hand, turning this control produces a progressively richer, brighter tonal quality. When applied to 8' voices with coupled 4' or 2½', it provides the possibility of a light and dazzling treatment both of a single melodic line, and of chords.

# Spacious Sound

A brilliant sound source that surrounds you with lively tones, with the same feeling as a revolving speaker. That's the Yamaha exclusive Spacious Sound. A world's first, this new system is an exclusive development of the outstanding Yamaha electro-acoustic technology, incorporated in the newest of the Electone series: the B-6E.

Successfully incorporating the essential sound quality of the famous Yamaha rotary speaker tremolo effect, this new effect is achieved solely through special electronic circuitry, assuring the same full, rich musical expression and liveliness that have made the Electone famous.



Spacious Sound is available in two speeds. Use SLOW for stately, liturgical selections, FAST for popular numbers. Works on Upper, Lower or both manuals, according to which of the three selectors you choose.

**Lower Selector :** ①⑥ Use this selector to apply the Spacious Sound to the lower manual tones.

**Upper Selector :** ①⑤ Use this selector to apply the Spacious Sound to the upper manual tones. The use of upper and lower selectors together will apply the Spacious Sound to the whole organ.

**Speed Selector :** ①④ Combined with either or both selectors ①⑤①⑥, this selector determines the speed of the Spacious Sound. Set to FAST for waves of emotion (like tremolo effect), SLOW for a stately, liturgical mood (like chorus effect)

## Other Controls

### Knee Lever : ⑩

The metal lever folded horizontally under the keybed is the Knee Lever. This lever, when pulled down for use, allows control of Reverb effect in conjunction with Reverb Control ⑰. (See page 12.)

Reverb Control is used for maximum setting, while the Knee Lever is operated with the right knee for passage-by-passage or even phrase-by-phrase reverb control precision during the performance.



### Master Volume Control : ⑪

The knob determines the maximum volume obtained from the Electone and can be varied as desired.

### Expression Pedal : ⑫

Expressive shading within each phrase, and accenting of individual notes can be achieved with this pedal, within the overall range set by the Master Volume Control. A full explanation will appear on page 23.

### **Stunning furniture design, roll-top fallboard**

The cabinet artistry of the B-6E blends with even the most impeccable decorator surroundings, especially when the roll-top fallboard is down. Close it to protect the keyboard from dust and scratches, keep out unauthorized hands.

