# HOW TO PLAY THE KURZWEIL™ 250

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This book tells how to use your musicianship to get the most out of the Kurzweil 250. It contains numerous musical examples to help you learn the techniques and styles of different instruments, which in turn will make your playing sound more authentic. So if, for example, you want to sound like a real guitarist when you play the Acoustic Guitar keyboard setup, you should read the hints and practice the examples on pages 6-7. In addition, there is a section of the book that deals with using the Sequencer. This section and the section on playing individual sounds reinforce each other, in that the sequences in the last part of the book make use of the playing techniques discussed in the first part, and some of the musical examples in the first part require the use of the Sequencer in order to be heard in their entirety. Other examples in the first part can be performed by two hands, but require a split or layered keyboard setup not provided among those preset in the K250. In these cases, you are urged to create the keyboard setups yourself, following the instructions in INTRODUCTION TO THE KURZWEIL 250, pages 27-32. This, too, serves to reinforce material presented later in the book, in the section on live performance techniques.

A WORD ABOUT SOUND: Making the K250 sound "real" is a chain with several links. The first link is the K250 itself, with the authentic sounds that have been built into it. The second is the way these sounds are played, which is the main topic of this book. The third and last link is the audio system that brings the sounds and playing styles to your ears.

There are good sound systems and there are not-so-good ones. You can determine how good yours is both by looking at its specifications — power, dynamic range, frequency response, etc. — and by listening to its sound, especially at the outer edges of the sonic spectrum — the louds, softs, highs, lows, brights, and darks.

If you lack a good sound system in your home, you may want to consider the one that has been assembled specifically for the K250. In addition to producing optimal results with the instrument, it includes features that most home audio systems lack: 1) a digital reverb unit (a little reverb goes a long way in making the sound of the K250 more lifelike); and 2) speakers designed to give you a non-point-produced stereo image (with proper placement, the sound seems to come from the K250 rather than the speakers). Your Kurzweil agent can provide you with more information about the Kurzweil 250 Home Sound System.

## Table of Contents


**2 SOME SOUNDS IN THE BASIC KURZWEIL 250**
Piano
**4** Harpsichord
Electric Organ
**6** Acoustic Guitar
**8** Strings
**10** Trumpet
**11** Baritone Horn
**12** Trombone
**13** Drums
**15** Acoustic Bass
**16 SOME SOUNDS IN SOUND BLOCK A**
Electric Bass and Slap Bass
**18** Flute
**19** Clarinet
**20** Oboe
**21** Choir
**22** Vibes
**24** Marimba
**26** Harp
**27** Chimes
Timpani
**28 LIVE PERFORMANCE TECHNIQUES**
Using the Keypad Banks
**29** Split Keyboard Setups
**30** Layered Keyboard Setups
Sound Effects
**31 USING THE SEQUENCER**
**32** Notes on YOUR SONG
**35** Notes on IN THE MOOD
**42** Notes on THEME FROM "ORDINARY PEOPLE"
**48 CONCLUSION**



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# SOME SOUNDS IN THE BASIC KURZWEIL 250

## Piano

The piano is a logical place to begin discussing playing the K250, for it is the piano that the instrument most resembles, and is most famous for.

As you know, the piano usually is played with both hands on the keyboard. The harder you press the keys (more precisely, the faster you press them), the louder and brighter the resulting sound is. In technical terms, this is called "velocity sensitivity."

The keyboard of the K250 has been designed to simulate that of the piano; the Kurzweil Grand Piano likewise simulates the sound of a piano. Musically, what all of this means is that, when playing piano music on the K250, you should take advantage of the expressiveness — the variations in loudness and softness — that it offers.

Another important aspect of piano playing is the use of the sustain pedal. This pedal, which is the right one on the pedal pod of your K250, sustains the sounds of notes after you lift your fingers from the keys. Of course, it doesn't sustain them forever; a piano note dies away after a time. But the sustain pedal serves to connect notes as the hands move around. A couple of guidelines are in order here:

- Use the pedal sparingly. If used too much, the result is an indistinct wash of sound. And you risk running into channel stealing, which causes notes being held by the sustain pedal to fall abruptly silent in order to make room for new ones.

- Use syncopated pedaling. What this means is that, instead of putting the pedal down at the same time you play a note, you put it down just after the note. And when you play the next note, the pedal comes up as the key goes down, and then the pedal immediately goes down again. This ensures a smooth sound that doesn't stray into either choppiness or blurriness.

There are innumerable different styles of piano playing and piano music. And music written for the piano is in larger supply than that for any other instrument. But the two examples on the next page may provide a glimpse of the expressive scope this instrument possesses — from the lyrical to the percussive.

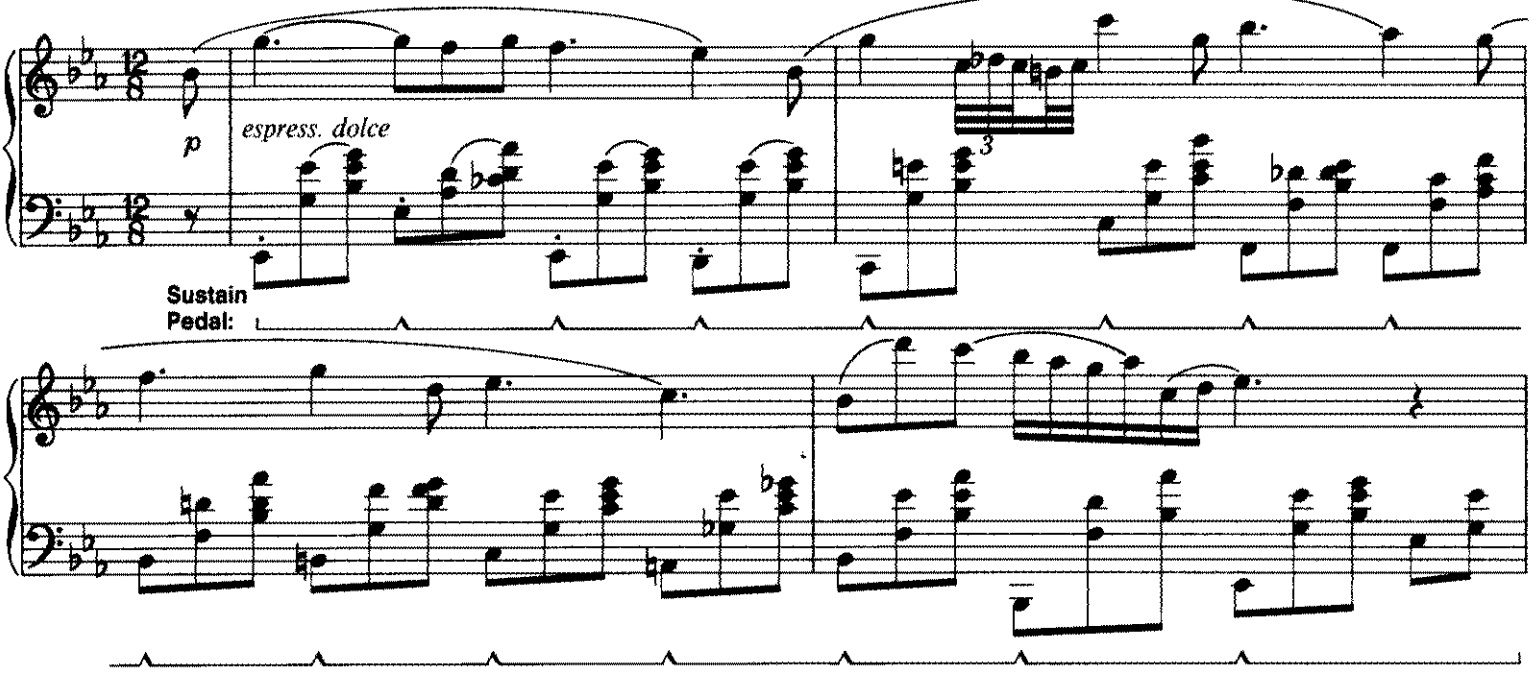
Play the Nocturne expressively, trying as much as possible to give a continuous flow to the music. Use the pedal, as well as a gentle touch on the keyboard, to create this effect.

Play "The Entertainer" more aggressively, attacking each note vigorously. Use little or no pedaling.

# Nocturne

Kurzweil Grand Piano

Frederic Chopin

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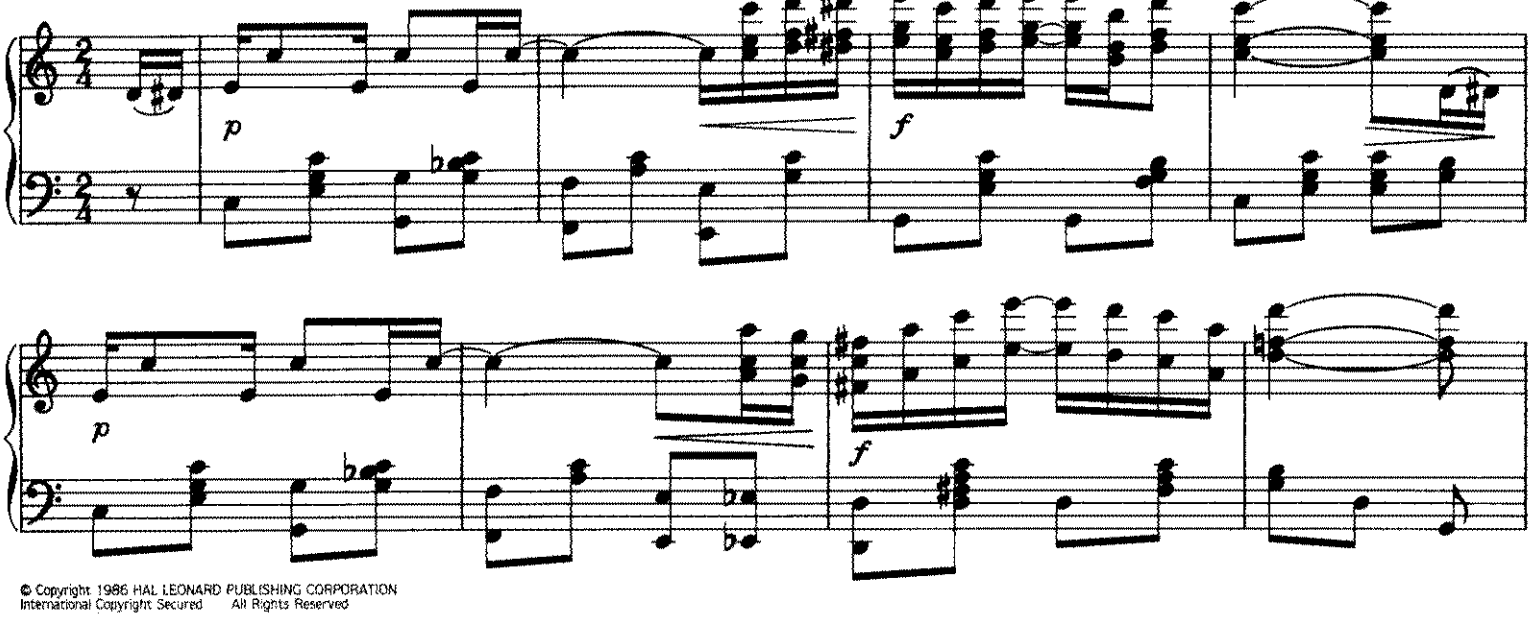
# The Entertainer

Kurzweil Grand Piano

Scott Joplin

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## EFFECTS

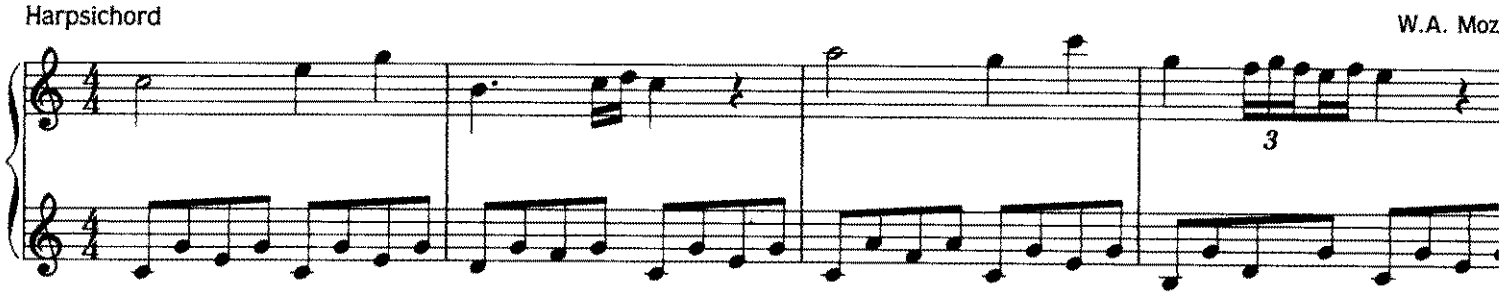
The bright sound of the "The Entertainer" would benefit from using the TRANSPOSE UP button in the Timbre Shift mode to make the piano sound more "brittle"; about 8 steps up is a good place to start, going higher or lower as you prefer. (Be aware, though, that too great a timbre shift alters the pitch of the lowest notes on the keyboard.) Press EDIT, then either TRANSPOSE button. Use the right or left arrow key to move through the list of Transpose modes until "TIMBRE SHIFT 5" appears in the display. Press SELECT. Then press the TRANSPOSE UP key the desired number of times to shift the timbre up.

Chorus, in the Doubling mode (with a Detune of about - 24), makes a terrific "honky tonk" piano sound. Press EDIT, CHORUS, SELECT. Use the right or left arrow key to move through the list of Chorus types until "DOUBLING 1" appears in the display. Press SELECT, then PLAY. Press CHORUS, then DETUNE (the top button above numbered slider 3). Move the DETUNE slider until "DETUNE: - 24" appears in the display. Press DETUNE again to deactivate the slider.

# Harpsichord

If your K250 includes the Harpsichord among the keyboard setups available (Version 3.0 software or higher), you should know that harpsichord music generally calls for fewer notes played at one time, but with more moving notes, than the Piano usually plays. Don't use the sustain pedal, since real harpsichords don't have them.

## Sonata Facile

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# Electric Organ

Organ technique differs from piano technique in the following ways:

- The organ keyboard is not velocity-sensitive; pressing the keys harder (faster) will not change the sound produced. Rather, a volume pedal is used to change the loudness of the sound.
- Most organs have two manuals — keyboards for the hands. The right hand often plays melody on the upper manual, while the left hand plays an accompaniment on the lower manual, using a different registration (the organ equivalent of a keyboard setup). In addition, there is a set of bass pedals — a keyboard for the feet — on which bass lines are played, usually in imitation of an acoustic bass.
- The organ has no sustain pedal.
- Organ sounds do not die away over time; rather, a note sustains for as long as the key is held down.

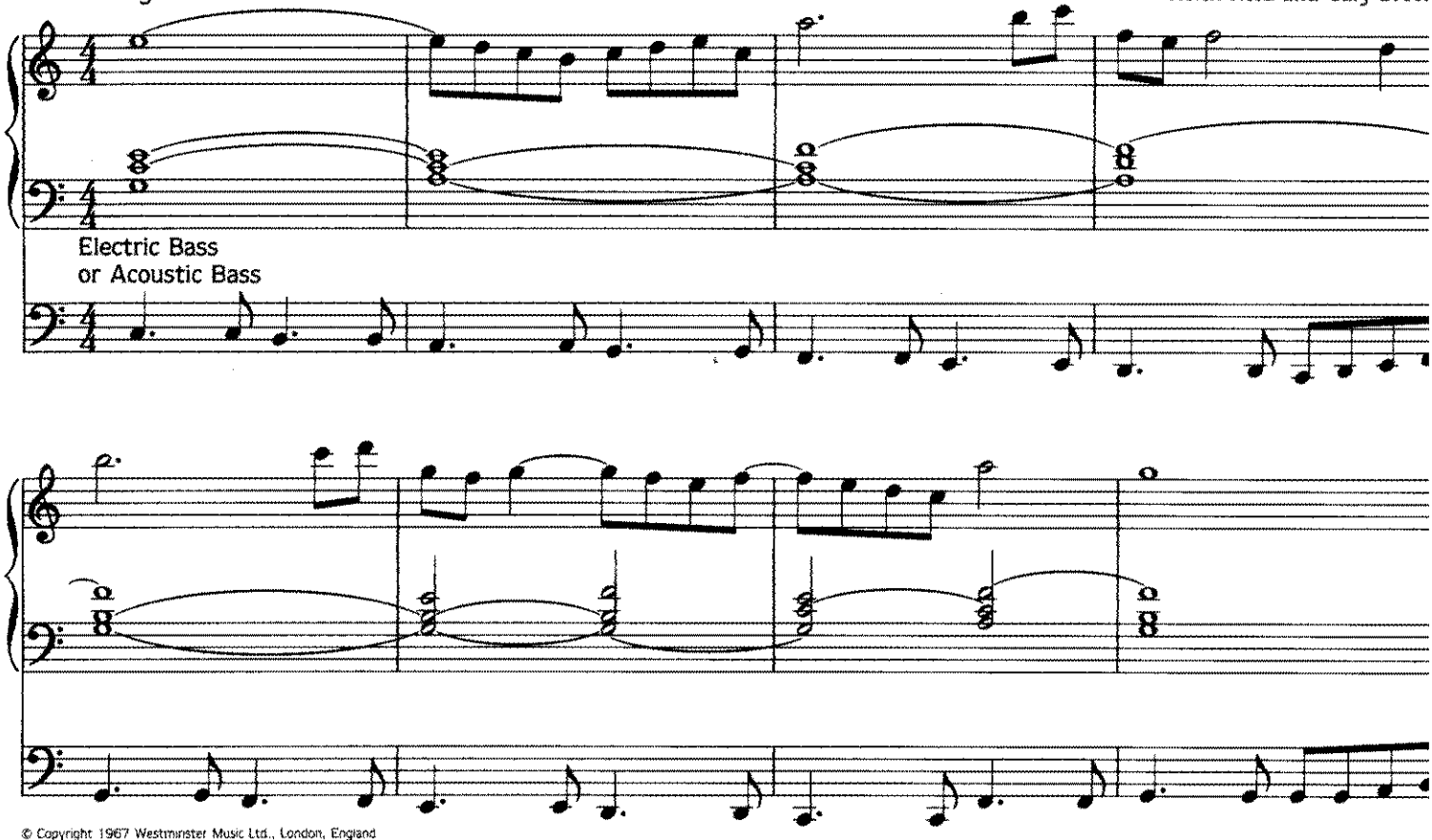
The K250 includes some organ sounds that are not velocity-sensitive, to imitate the response of an actual organ keyboard, as well as some that are velocity sensitive, to reproduce the effect of the volume pedal on the organ.

The capability of organ sounds to sustain indefinitely means that when trying to play the K250 like an organ, you should rely on held notes to a greater extent than when playing piano music.

NOTE: You will need to use the sequencer in order to play the following example.

## A Whiter Shade Of Pale

Words and Music
Keith Reid and Gary Brool

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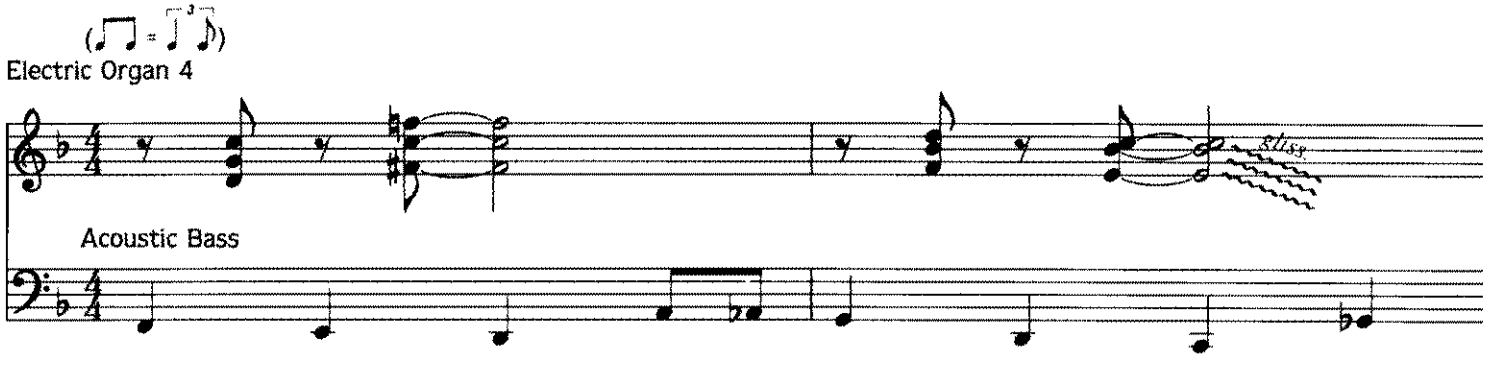
Jazz is popular among many organists, using the "percussive" sound of Electric Organ 4 and relying heavily on a sparse, dissonant style. Notice the **glissando** at the end of this example, in which the fingers slide rapidly over the keys; this is often found in jazz organ playing.

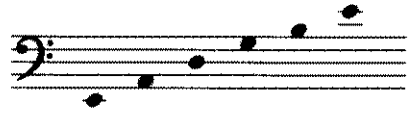



## EFFECTS

Two of the kinds of Chorus offer convincing reproductions of the sound of an electric organ played through a rotating speaker. Flanging sounds like such a speaker rotating at a slow speed (useful for the jazz organ sound), while Full Chorus sounds like fast rotation. Both of these effects can be used in the default settings that are set at the factory. See INTRODUCTION TO THE KURZWEIL 250, pages 16-17, for more information.

# Acoustic Guitar

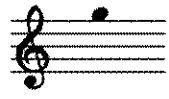
The guitar has six strings, tuned as follows:



This implies two things for the K250 player:

- Never play more than six notes at a time. In many instances, as you'll see, it is desirable to play fewer than six.

- Don't play any note lower than the lowest E in the illustration. There's also an upper limit to the range, although it's less rigid than the lower limit:



Higher than this, the guitar loses its distinctive character. The same idea (though not necessarily the same range) applies to all instrumental sounds: outside the natural range, the instrument ceases to sound real.

(By the way, if you ever play music written for the guitar, be aware that it is written an octave higher than it sounds. This is done so it can be written on a single staff. All the music in this book, however, is written to show the exact keys to press on the keyboard, just as in piano music.)

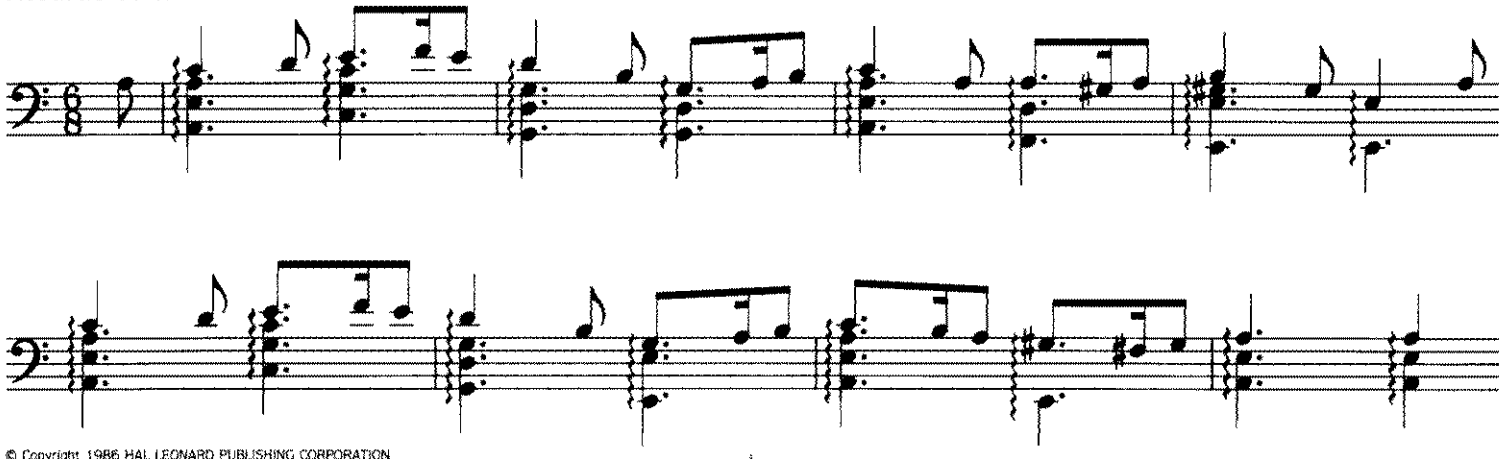
The basic element of guitar technique is the **strum.** The notes of a chord on a guitar are not played at the same time, as they are on the piano, but are sounded one after the other, from the lowest to the highest, as the player's thumb strums the strings.

When playing the K250, "roll" the notes of the chord from the bottom to top (notated with a wavy line: ), holding each note down in succession. The slower and more pronounced this rolling is, the more convincing a "guitarist" you'll be.

Don't use the sustain pedal. Rather, hold the keys down for the amount of time you desire.

# Greensleeves

Acoustic Guitar



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Fingerpicking is another technique of playing the guitar. As the name implies, it calls for the guitarist to use his or her fingers (specifically, the thumb and the first three fingers) to pluck the strings. One style of fingerpicking, called Travis picking, is especially characteristic of folk music. There are two elements in Travis picking:

- A steady, quarter-note bass line, which usually alternates between the root and the fifth of the chord.
- A syncopated melodic line.

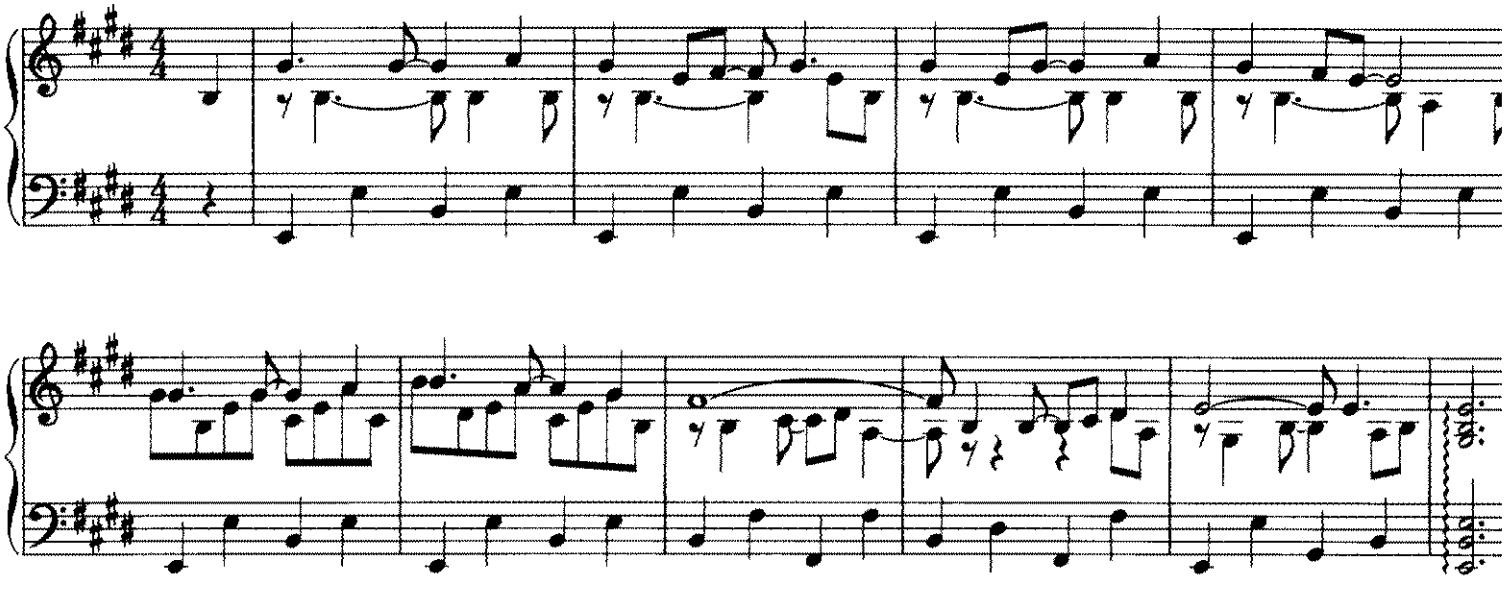
As a rule, only one or two notes are plucked at one time in Travis picking, and a total of only two to four notes ever sound simultaneously.

In the following example, notice the steady quarter notes in the left hand and the syncopation in the right hand. Together, these typify Travis picking.

# Sloop John B.

Words and Music by P.F. Slo
S. Barri, B. McGuire and B. Ho

Acoustic Guitar



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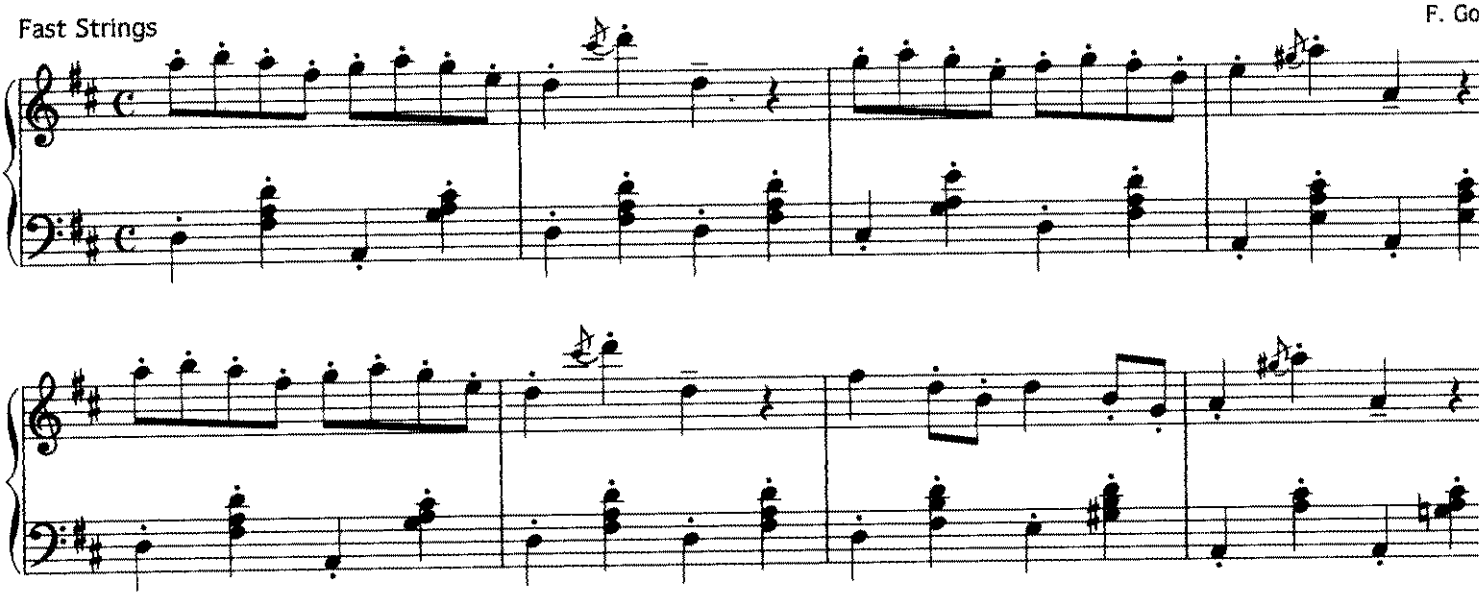
# Strings

In most of the sounds in the K250, it is the attack — the beginning of a note — that tells you "this is a piano," o "this is a guitar," or "this is a string ensemble." It's the attack that makes a sound seem real. If you play long, sus tained notes with some keyboard setups, the sound begins to seem artificial.

This is most true for sounds that sustain for as long as you hold a key down. These include the brasses (especially th Trumpet and the Baritone Horn), the woodwinds (Flute, Clarinet, and Oboe), and the Strings.

For the most realistic sound with the Strings, then, play "aggressive" music, music that emphasizes repeated attack or moving lines.

## Gavotte

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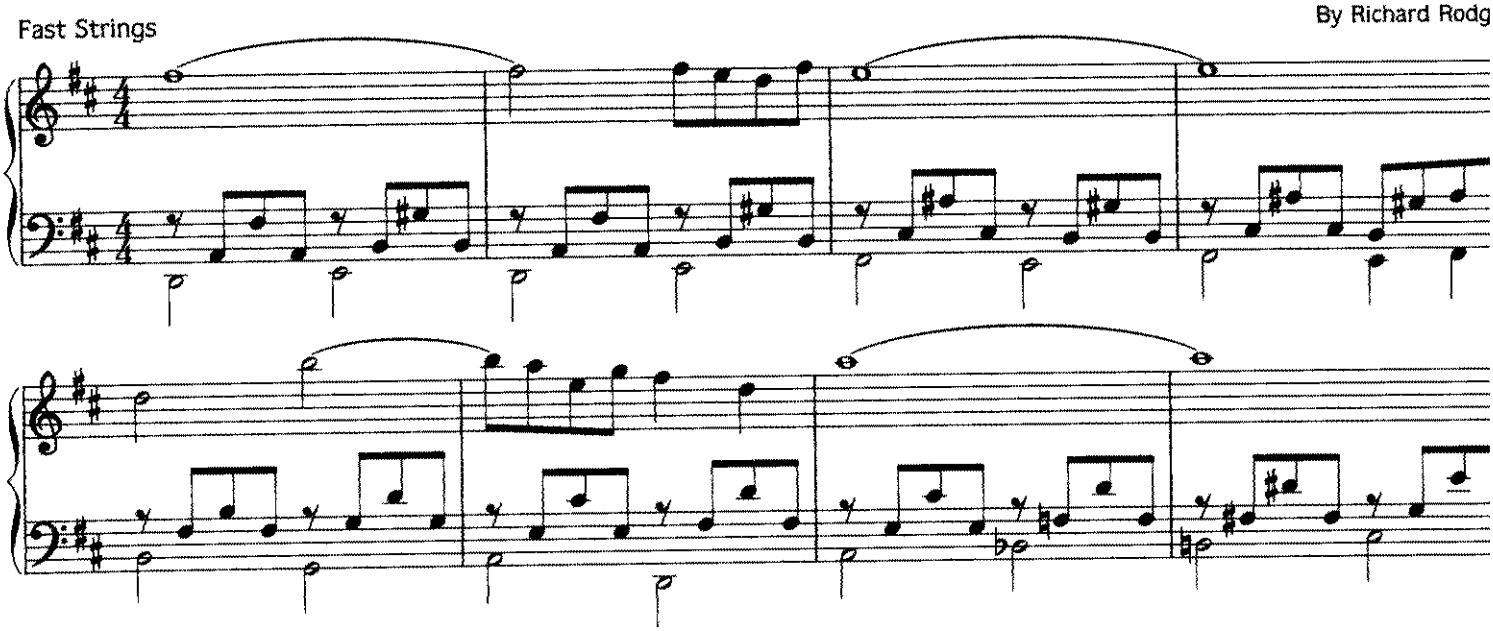
If you must play exposed long notes, try adding vibrato, or perhaps Doubling (Chorus) to give the sound more warmt Also, when playing back a piece recorded by the Sequencer, use the VOLUME slider to add crescendos ar decrescendos.

## Slaughter On Tenth Avenue

(From "ON YOUR TOES")

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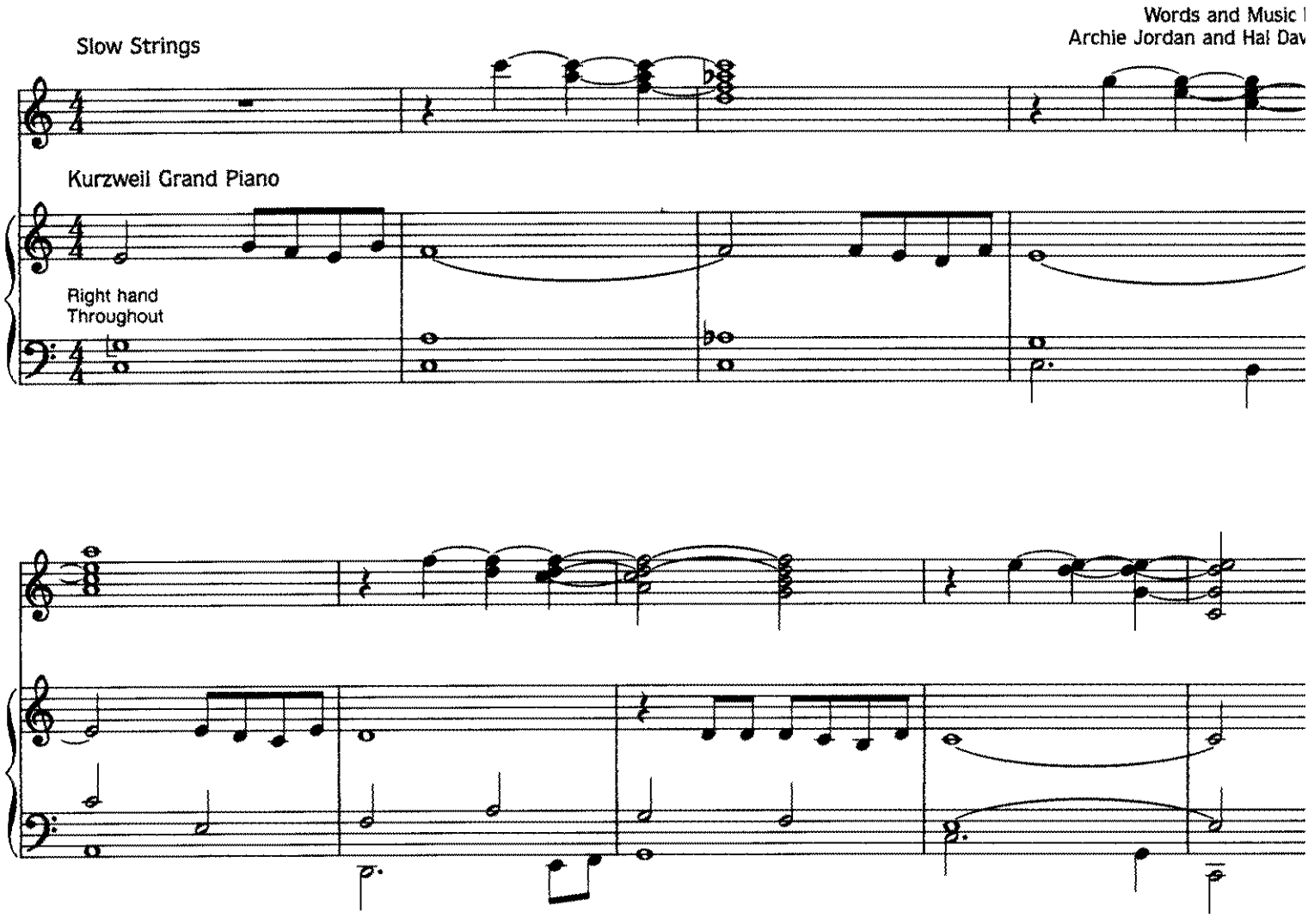
Notice that, since each note you play with the Strings gives you the sound of several instruments, you don't have to play many notes to achieve a full sound.

Slow strings usually play in the background.

## It Was Almost Like A Song

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When the Strings play chords, the sound is more natural than when they play long single notes. Open spacings of chords sound better than dense, close chords.

## EFFECTS

Aside from those already mentioned, one more effect is important: reverb. The Strings, as much as any other sound on the K250, benefit from the right amount of reverberation; it gives them a "concert hall" sound.

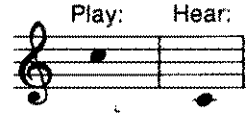
# Trumpet

Several points are relevant to playing the Trumpet on the K250:

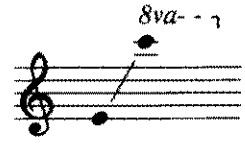
- Remember that trumpeters and other brass and wind players need to breathe. Try singing or whistling a trumpet line before you play it, to determine where breaks are necessary to take a breath (these will usually be at the ends of musical phrases). Then, when you play, lift your fingers from the keyboard for these "breaths." Don't use the sustain pedal.

- The Trumpet sound in the K250 is more of a classical than a jazz trumpet. Choose your music accordingly.

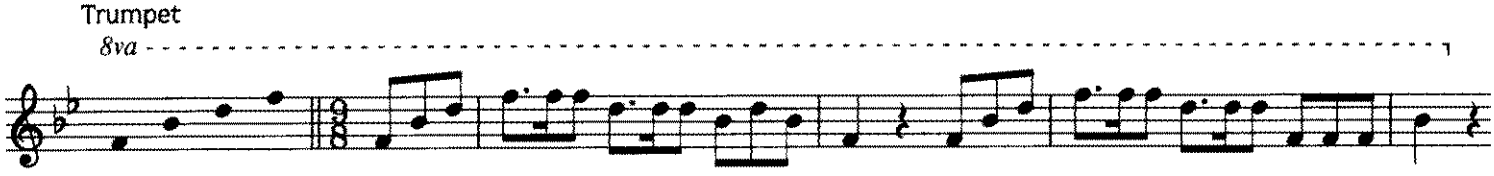
- To hear the right notes when you play the Trumpet keyboard setup, you must play the keys an octave higher.




The keyboard setup was made this way so that the entire range of the Trumpet lies within comfortable reach of the right hand. The natural trumpet range, as written for the K250, is:



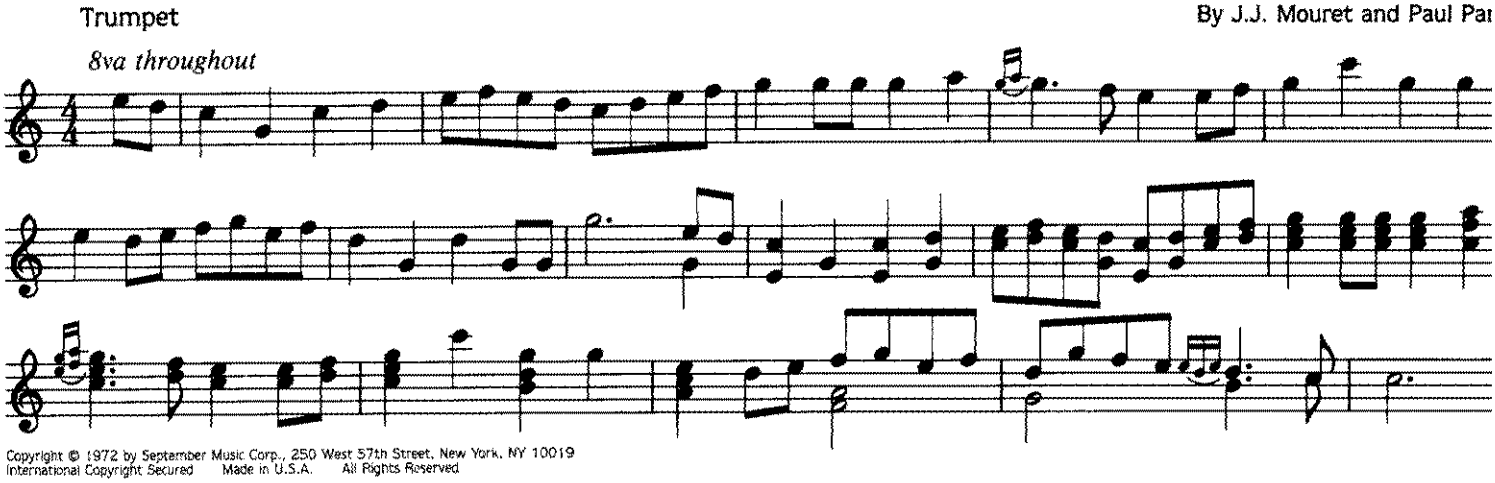

- Bugle calls, such as "Taps" and "Reveille," all use the same four notes:




- Trumpets sometimes play in groups of two or three, as well as individually. In such cases, it is often best to play the lines individually into the Sequencer, rather than trying to play all parts at once.

## The Masterpiece

(The T.V. Theme from "THE MASTERPIECE THEATRE")

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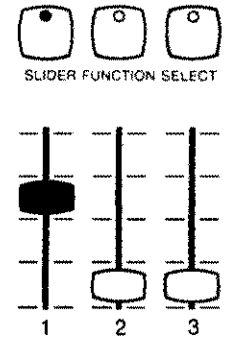
- Short, staccato notes sound more realistic than long, sustained notes.

## EFFECTS

A little vibrato makes sustained tones sound more realistic.

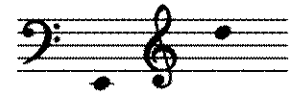
Set the speed of the vibrato about here:




# Baritone Horn

Although the baritone horn may not be as well known as its cousin the French horn, the two are interchangeable for most purposes.

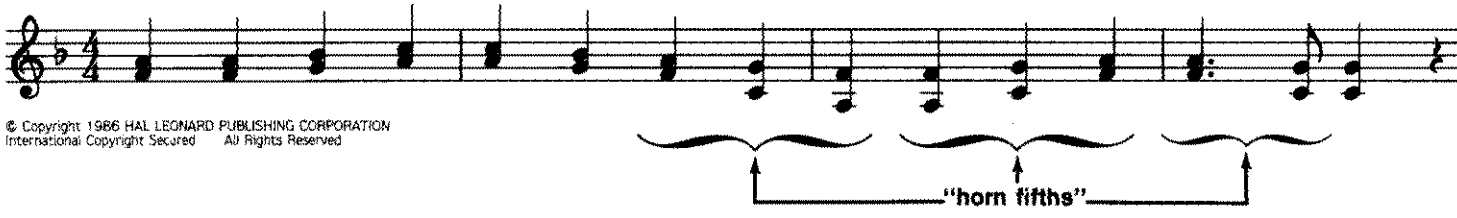
The Baritone Horn covers a wide range of notes, with a mellow low and middle range and a bright, trumpetlike high range.



A characteristic sound is two horns playing in harmony, with a phenomenon known as "horn fifths" occurring between them.

### Ode To Joy

Baritone Horn

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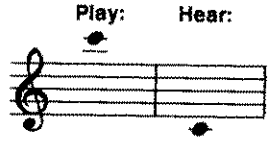
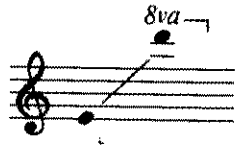
This can also be seen in the Trumpet example "The Masterpiece," and is related to the scale used in bugle calls; it originated in early brass instruments, which had no valves, and so could only play certain notes.

# Trombone

To hear the right notes when you play the Trombone keyboard setup, you must play the keys two octaves higher.




This is so that the entire range of the Trombone lies within reach of the right hand. The trombone range, as written for the K250, is:




The Trombone sound is not complete without the familiar "slides" between notes. On the K250, this is accomplished by using the Pitch Bend lever. There are two typical kinds of slides:

1. While holding a note, bend the pitch up an interval of a fourth — that is, five half steps — or sometimes less. (See the section on Function Commands in the Kurweil 250 REFERENCE GUIDE for instructions on how to set the range and direction of pitch bend.) When you reach the top note, take your finger off the key; this sounds more authentic than holding the top note.

2. Use the Pitch Bend lever to lower the pitch about a half step **before** playing the note (a little practice will give you a feel for how far to move the lever), then play the note and release the lever. The result is a small slide up into the note. This is used more often than the first kind of slide.

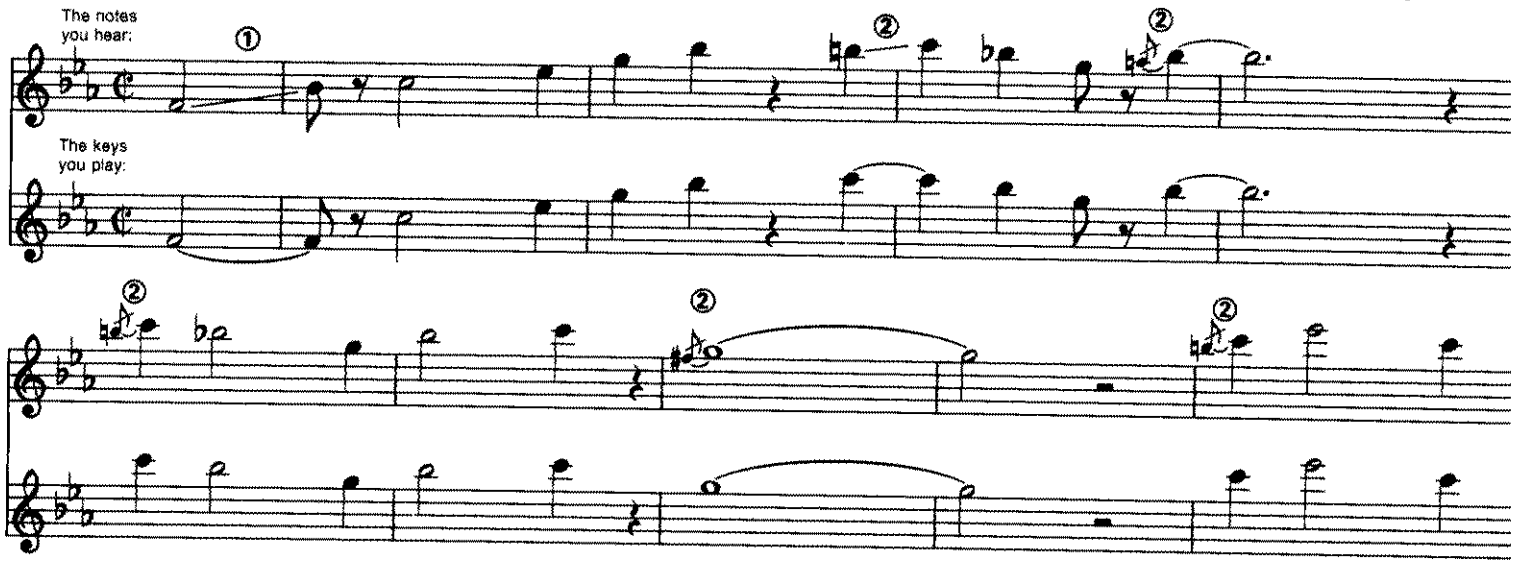
   These two kinds of slides are labeled, with the numbers ① and ②, respectively, in the following example.

## Cabaret

(From the Musical "CABARET")

Trombone

Words by John Kande
Words by Fred Eb

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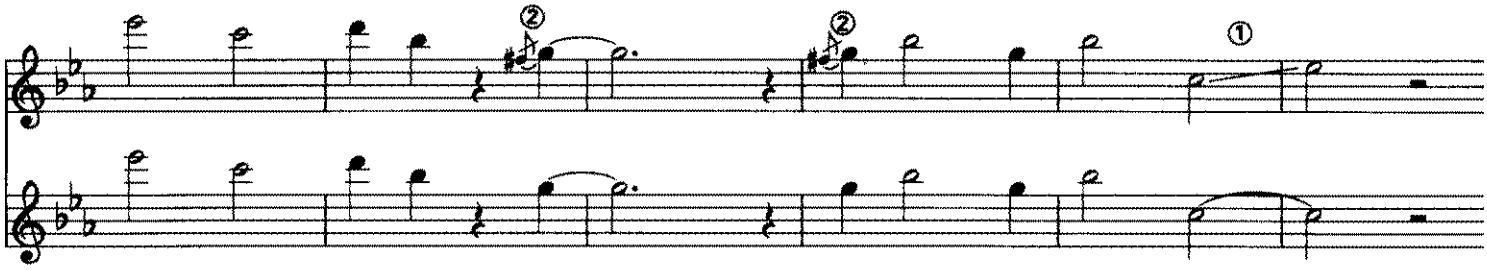


## EFFECTS

Vibrato, applied sparingly, can "sweeten up" sustained notes. Use the same speed suggested for the Trumpet.

# Drums

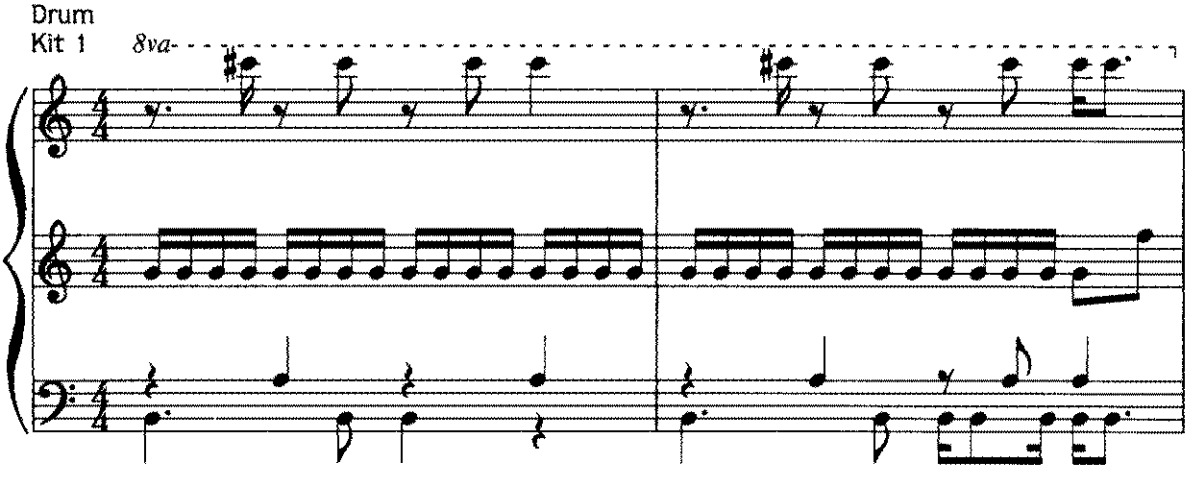
There are two ways to approach playing the Drums on the K250:

1. Use the Sequencer to record the individual drum parts on separate tracks. This makes even the most complex drum patterns manageable to play.

   There is a variation on this procedure that can be used for a single pattern that repeats throughout a song: a continuous loop. When recording a continuous loop, the pattern plays over and over while you add parts one by one.

   NOTE: This requires that you follow the Click pulse produced by the Sequencer.

   Refer to the instructions on "Recording Continuous Loops" in the Sequencer section of the KURZWEIL 250 REFERENCE GUIDE. Set the length of the loop to eight beats. Record the following drum pattern, one instrument at a time, at a comfortable tempo. When you're done, quantize to 1/16, if you wish (again, refer to the instructions for doing so). Play the pattern back at a tempo of about 120 beats per minute.

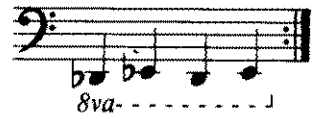


2. Play the drums live. This sounds more realistic than it might seem, if you think about what a real drummer usually plays: The right foot plays the kick drum, the right hand plays the snare drum, the left foot opens and closes the hi hat, and the left hand plays the hi hat. Add a few tom-toms for fills, hit the crash cymbal once in a while, and you have a pretty complete rhythm track.

A little practice should make you comfortable with the basics of playing the drums on the K250. Select the Mini Drum Kit at first, just to make it easy on yourself. Play slowly, following the Click pulse or an ordinary metronome. Increase your speed as you become more proficient.

The foundation of most drumming is the Kick Drum alternating with the Snare Drum. Play this with your left hand.

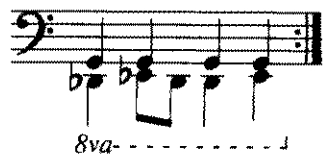
Mini Drum Kit



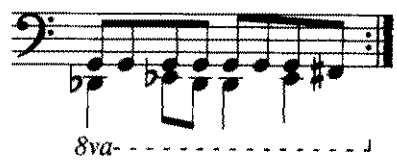

A basic rock rhythm is a variation of this.

You can make this as complex as you wish.

The Closed Hi Hat is next, sounding on every beat. Play this with your right hand.




The Open Hi Hat can be added at the end of a pattern.



Play fills on the Tom-Toms, "drumming" the keys with the index fingers of your left and right hands in alternation. End a fill with the Kick Drum and Crash Cymbal at the same time.

Snare Drum rolls are facilitated in some Drum Kits by several keys that produce the same pitch.

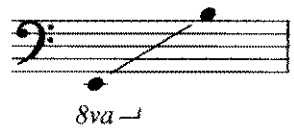
Drum Kit 1

## EFFECTS

Flanging adds an impressive "whoosh" to the sound of the Crash Cymbal.

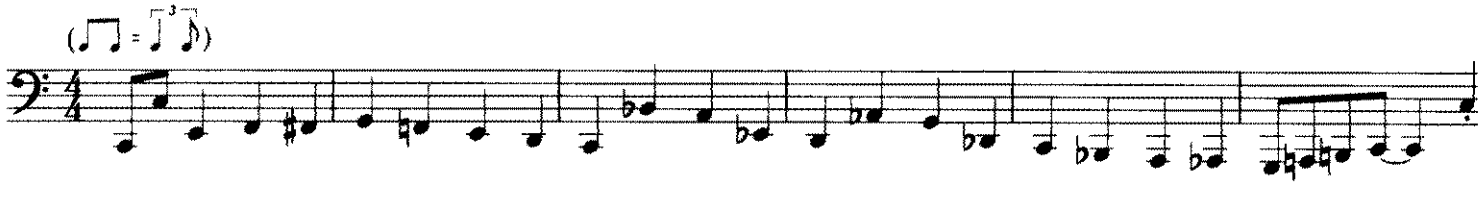
# Acoustic Bass

The natural range of the acoustic bass is as follows:



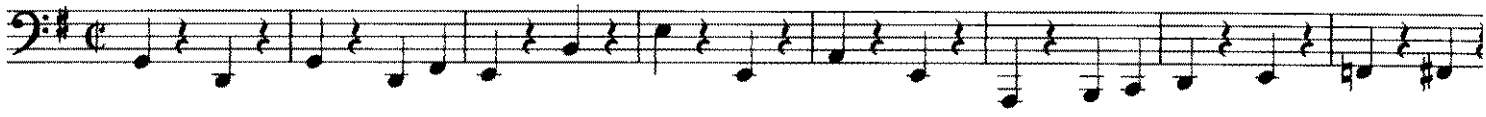

Its most prominent use is in jazz, to provide a "walking" bass line that propels the music with its quarter-note pulse. This kind of bass line moves primarily by steps and half steps.

Acoustic Bass



In slow ballads, which usually have two main beats per bar rather than four, the bass plays a simpler part, usually alternating between the root and the fifth of the current chord.

Acoustic Bass



## EFFECTS

Small, quick slides up into notes are characteristic of bass playing, Use the Pitch Bend lever, exactly as with Trombone slide number 2 described on page 12.

# SOME SOUNDS IN SOUND BLOCK A

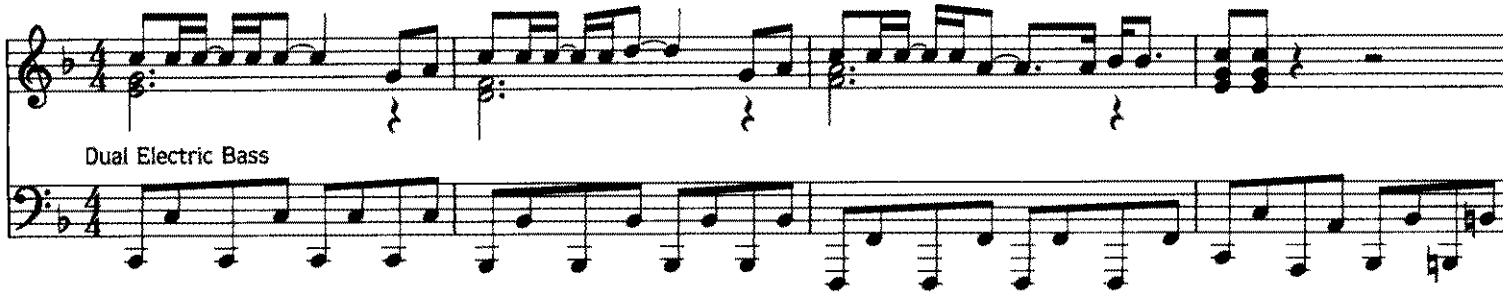
## Electric Bass and Slap Bass

The range of the electric bass is the same as that of the acoustic bass.

A typical pattern for the electric bass is the "disco bass," which is an alternation of notes an octave apart.

### Night Fever

Words and Music by Barry Gibb
Robin Gibb and Maurice Gib

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Slap bass is a technique of playing the electric bass in order to achieve a bright, percussive sound. It is used to accent notes. The Dual Electric Bass keyboard setup allows you to change between normal and slap bass sounds in the same way a bass player does: by choosing which notes you accent (play harder). Play the example above again, accenting the top note of each octave pair in the bass line in order to give it a slap sound.

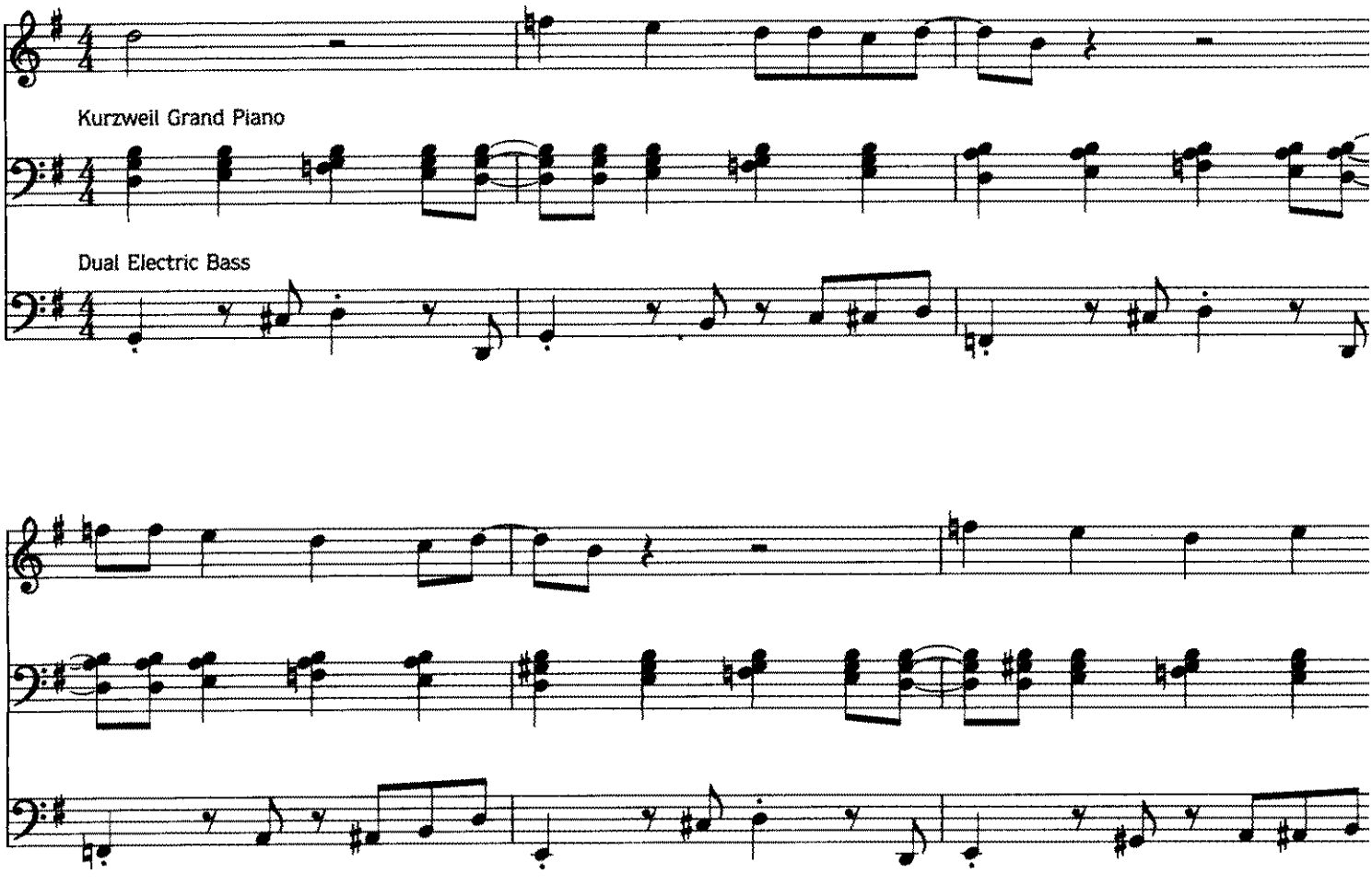
There are many different styles of bass playing, varying in complexity. The simplest bass lines, often found in rock music, duplicate the rhythmic pattern of the bass drum.

Dual Electric Bass

The following is an example of a moderately involved bass line.

## Love Will Keep Us Together

Words and Music by Neil Seda
and Howard Greenfi

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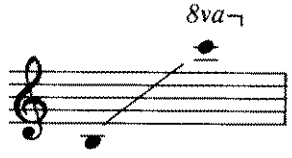
## EFFECTS

If it is difficult for you to press the keys fast enough to hear the Slap Bass when you play the Dual Electric Bass, you can change the sensitivity of the keyboard to make it easier. See the KURZWEIL 250 REFERENCE GUIDE, under "The Function Commands," for the instructions on Keyboard Dynamics. The lower the number you set for keyboard dynamics, the easier it will be to obtain the Slap Bass.

# Flute

Although flutes, clarinets, and oboes sometimes play in groups, here they will be discussed as solo instruments, for this is how they are most often heard, and this is where their special playing techniques most often come into play.

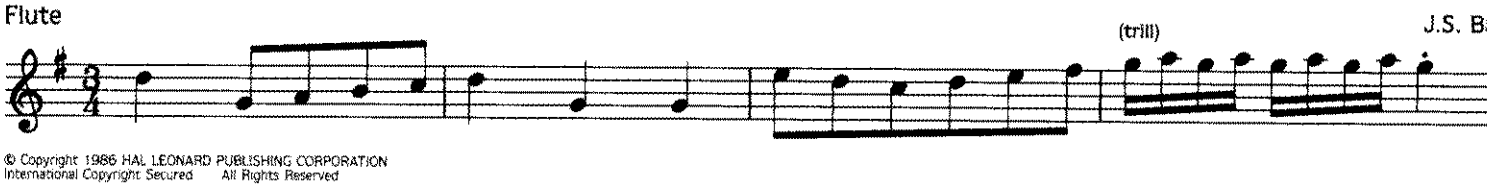
The range of the flute is as follows:




At the bottom of this range, the notes are softer — and the attacks are slower — than higher up.

Flutes often play quick, agile lines, embellished by such ornaments as the **trill** — a rapid alternation of notes a step or a half step apart.

## Minuet

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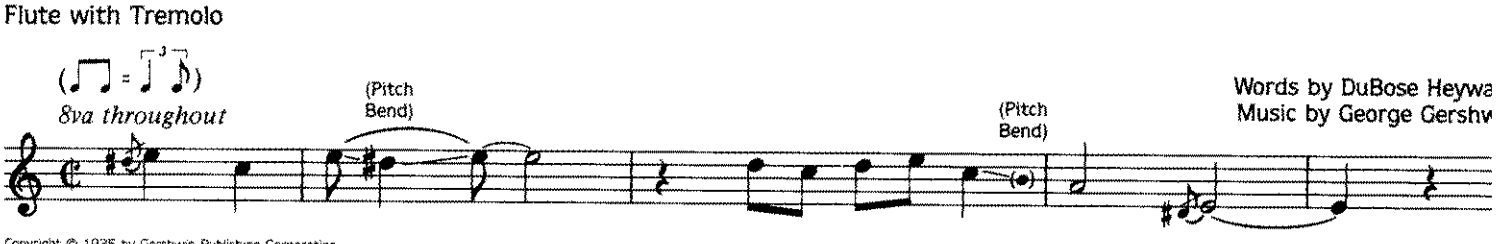
When playing trills on the Flute, be sure the notes don't "overlap"; release one note before playing the next.

Another side to the flute calls for slow, expressive playing. This is sometimes in a jazz style that calls for grace notes and small pitch bends.

## Summertime

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When playing slow melodies, the Flute with Tremolo is a better choice than the plain Flute.

## EFFECTS

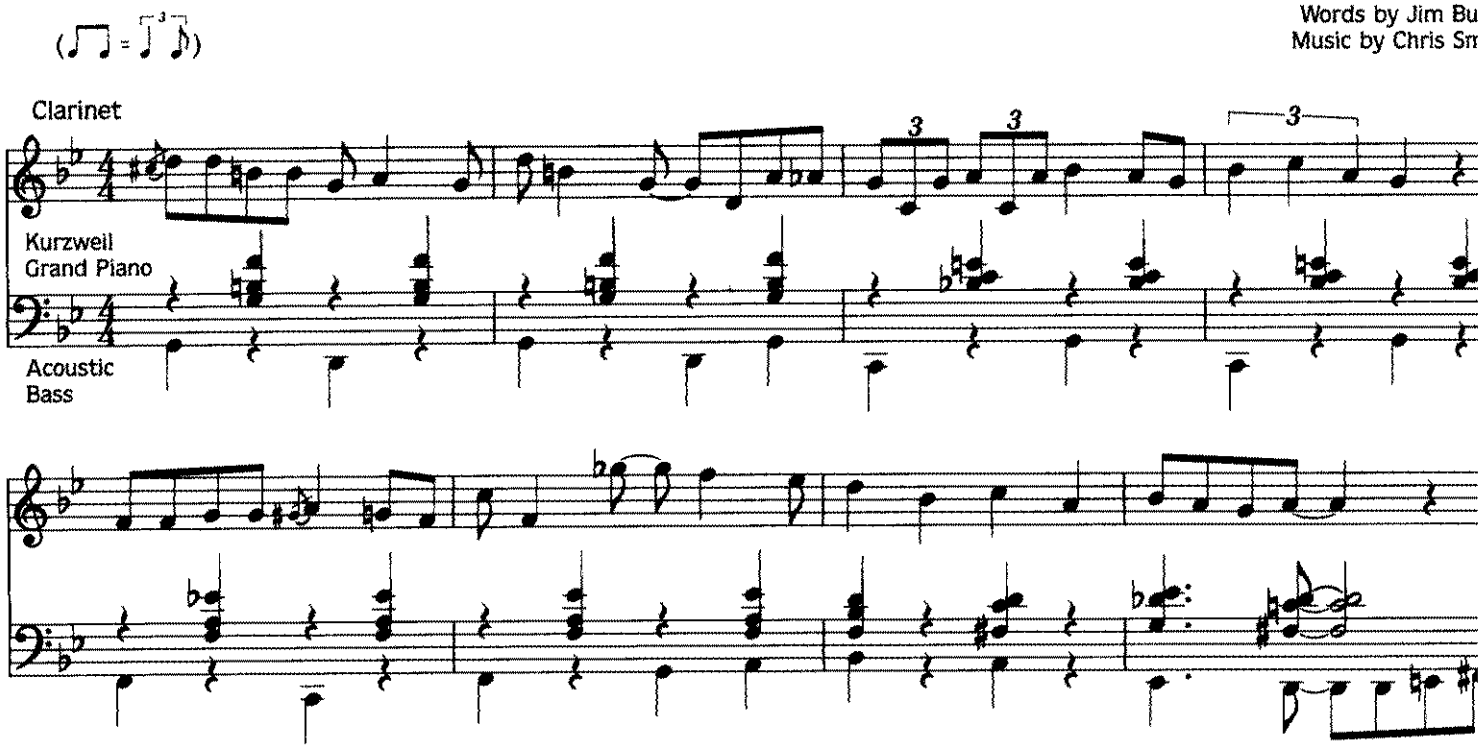
A little reverb adds an air of mystery to the sound of the Flute.

# Clarinet

The clarinet possesses an agility comparable to that of the flute. It often employs this characteristic in up-tempo jazz or Dixieland numbers, in order to take liberties with the melody.

## Ballin' The Jack

Words by Jim Bu
Music by Chris Sm

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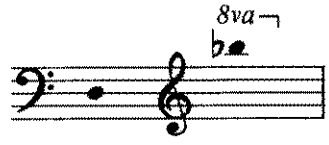
*Use the Acoustic Bass/Piano keyboard setup.

The clarinet has a wider range than the flute or the oboe, with a more powerful low range.




## EFFECTS

Vibrato for the Clarinet should be set a little faster that for the Trumpet (see page 11).

Pitch bend is great for Dixieland. It can be used to play the grace notes in "Ballin' The Jack," using the same technique as Trombone slide number 2 on page 12.

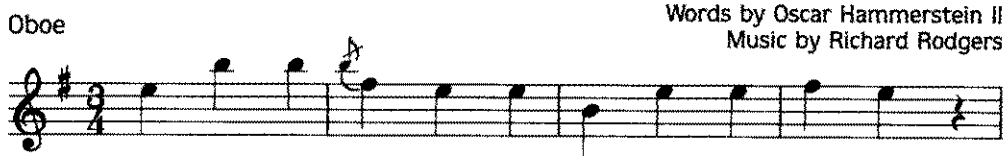
# Oboe

The penetrating tone quality of the oboe makes it an ideal solo instrument. Played quickly, it is incisive.

## My Favorite Things

(From "THE SOUND OF MUSIC")

Words by Oscar Hammerstein II
Music by Richard Rodgers

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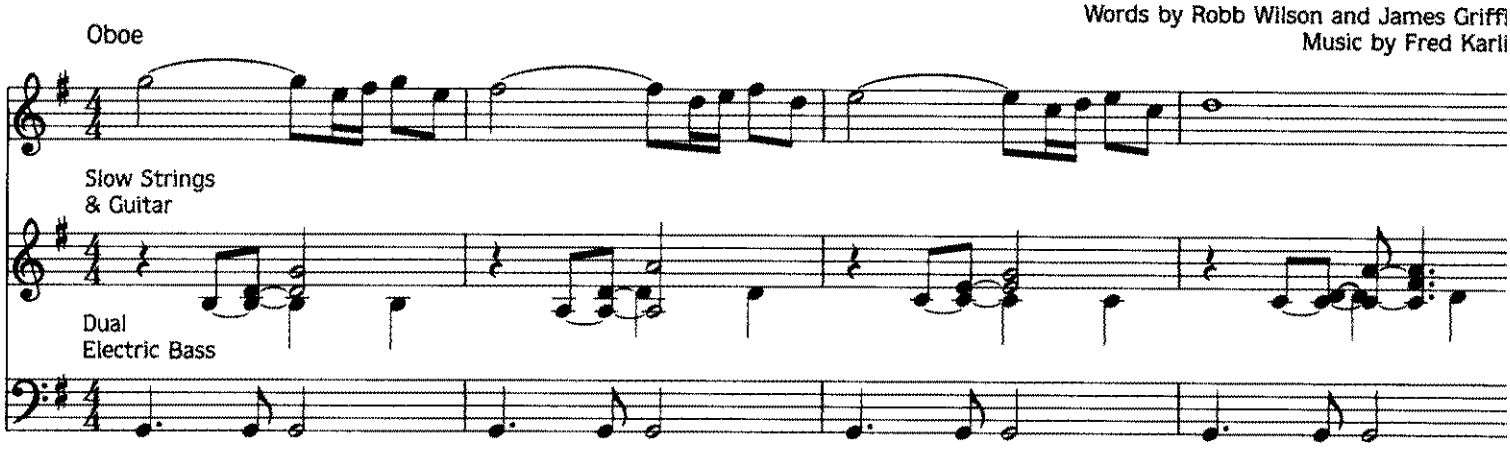
Played slowly, it is plaintive.

## For All We Know

(From the Motion Picture "LOVERS AND OTHER STRANGERS")

Words by Robb Wilson and James Griffi
Music by Fred Karli

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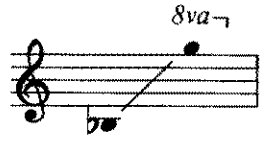
The natural range of the oboe is:




## EFFECTS

Vibrato for long notes is best if not too deep (just barely move the lever) and not too fast (slower than that suggested for the Trumpet on page 11).

# Choir

Just about anything sounds good when playing the Choir keyboard setup: solo lines, tight clusters of notes, normal "one-handed" three-note chords, widely spaced chords. . . . There are a couple of things to observe, however:

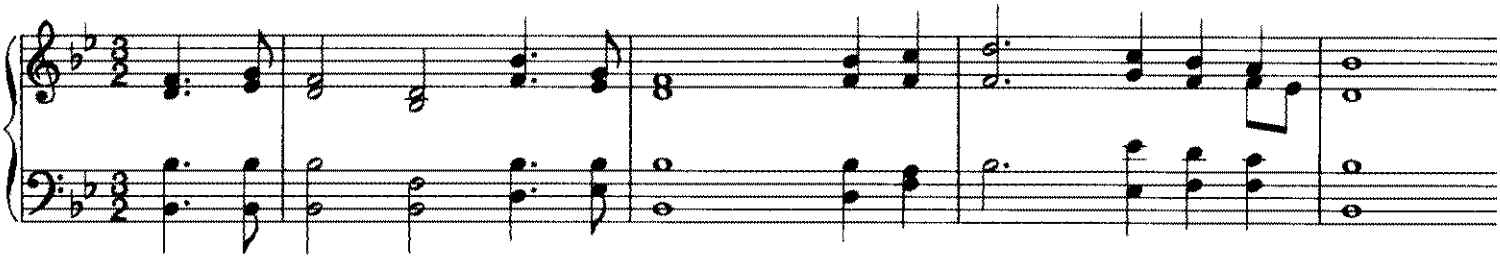
- Range. The Choir in the K250 sounds best within the normal range for a real choir:

- Speed. Fast repeated notes tend to sound unrealistic (though fast moving lines pose no problem). The Choir sound has an air of dignity about it that suits some styles of music better than others.

The native music of the Choir is the church hymn.

## Rock Of Ages

Choir



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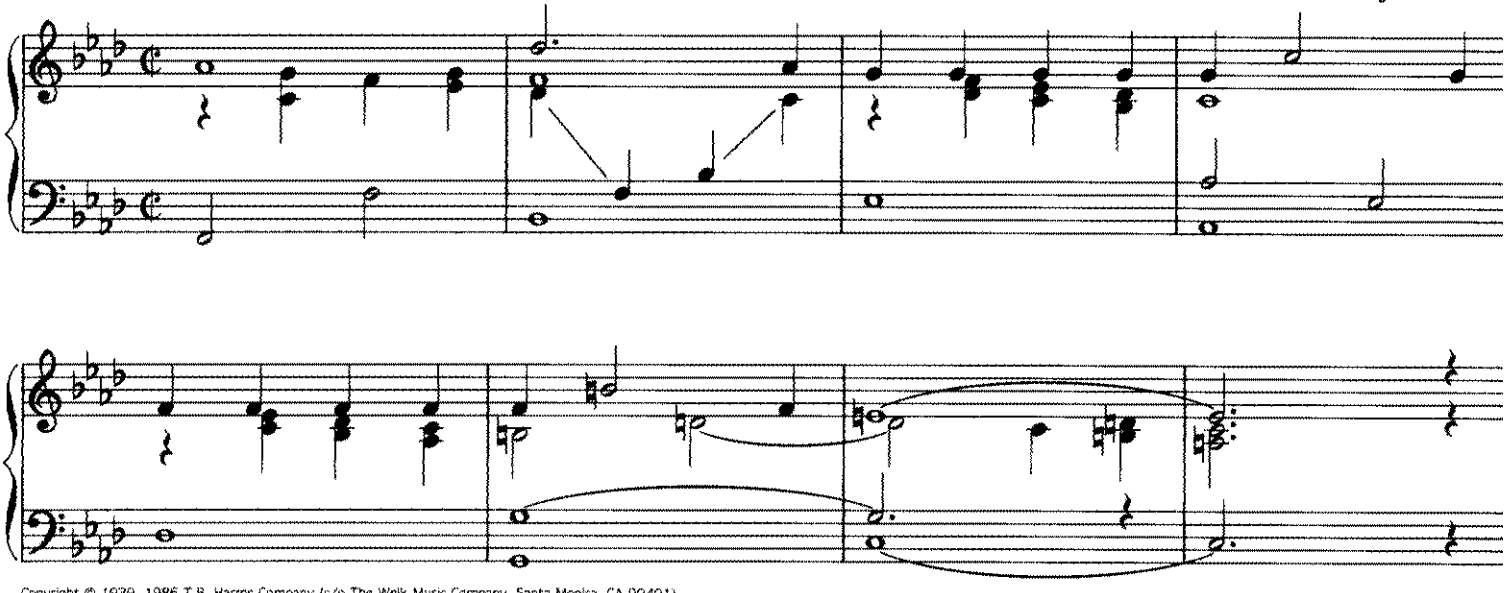
Even when playing other kinds of music, it's a good idea to use the kind of flowing four-part harmony found in hymns:

## All The Things You Are

(From "VERY WARM FOR MAY")

Words by Oscar Hammerstei
Music by Jerome Ke

Choir



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# Vibes

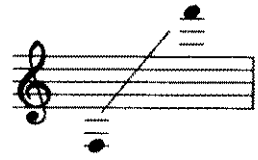
The vibes (vibraphone) are played by striking metal bars with mallets. The player sometimes has one mallet in each hand — with which he or she can play either melodies or two-note chords — and sometimes two in each hand, for a total of four notes that can be played at one time.

Observe this limitation when playing the Vibes on the K250, keeping in mind that too many notes can sound muddy, due to the bell-like sound of the instrument. Two guidelines to follow in this regard are:

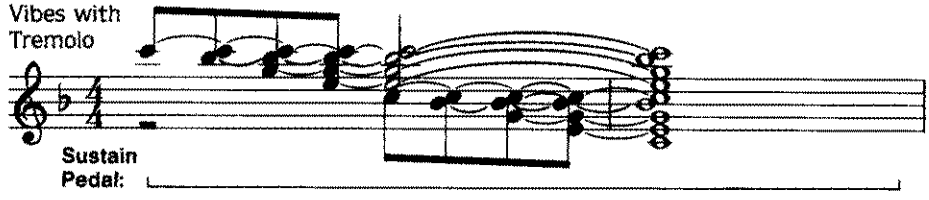
- Play as few notes as possible at one time.

- Wide spacings between notes sound best, especially in the low range. (Dissonant jazz chords are most characteristic, as the example on the following page shows.)

The range of the vibes is:

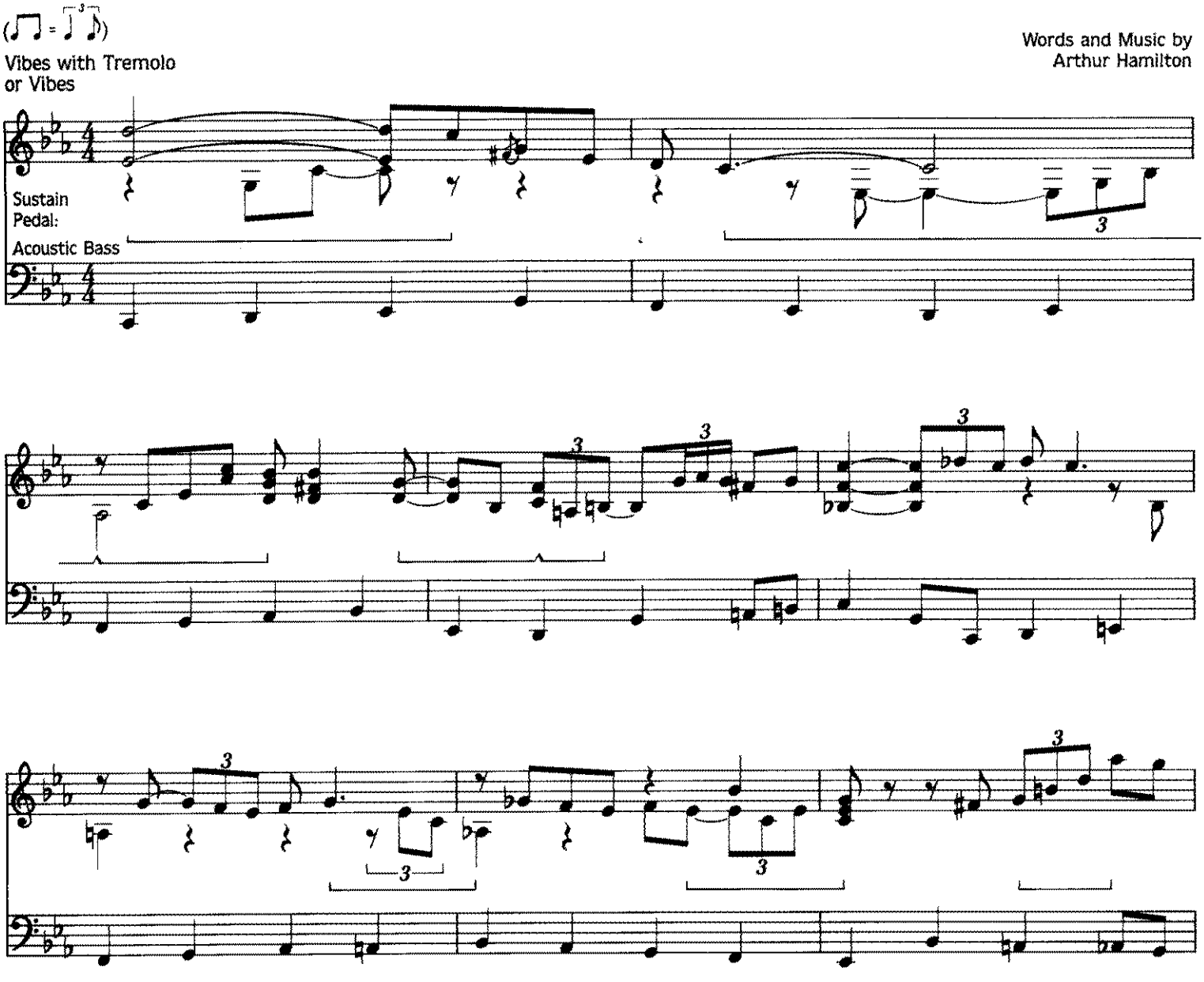


There is a sustain pedal on the real vibes, so you may use it on the K250 as well; it is usually used in building up large chords by adding one note at a time.



Real vibes can be played with or without tremolo, so on the K250 you have a choice between Vibes and Vibes with Tremolo. Use the former for up-tempo music and the latter in slower, more expressive tunes.

# Cry Me A River

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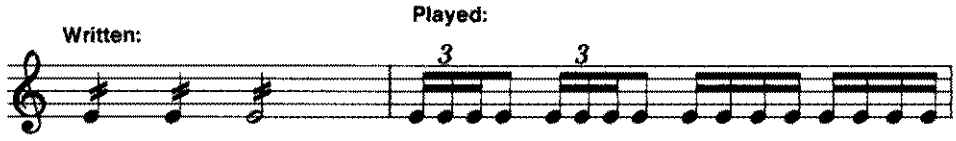
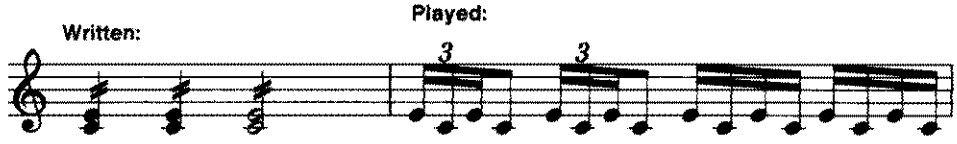
# Marimba

Like the vibes, the marimba is played with mallets — either two or four. Unlike the vibes, however, the marimba has no natural means of sustaining tones; so players resort to a rapid repeating in order to play long notes. This **tremolo** technique, as it is called, is notated by beams placed across the stems of the notes.

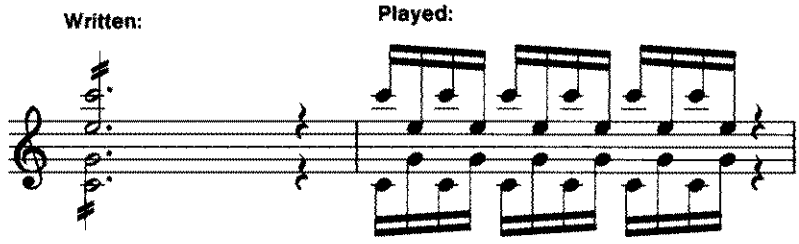
On the K250, tremolo on a single note is best played by alternating the index fingers of your right and left hands. Speed is not as important as rhythmic evenness.




Play two-note tremolos with a single hand, starting with the top note and then alternating notes.



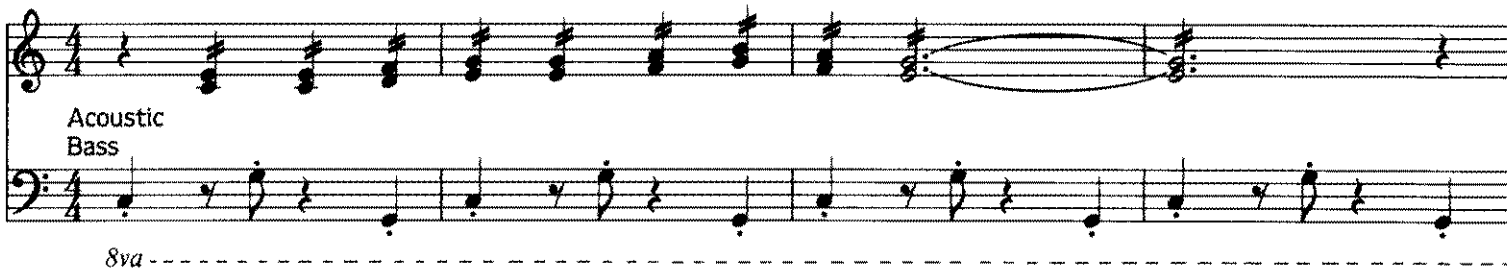

In four-note tremolos, play two notes with each hand, starting on the **low** note in the left hand the **high** note in the right hand.




The marimba is often used in music with a Spanish flavor.

## Spanish Harlem

Words and Music b
Jerry Leiber and Phil Specto

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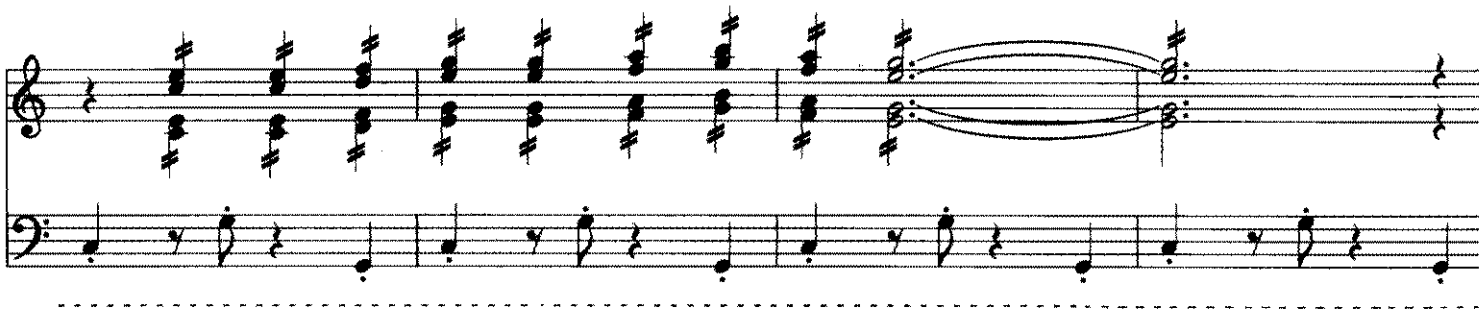
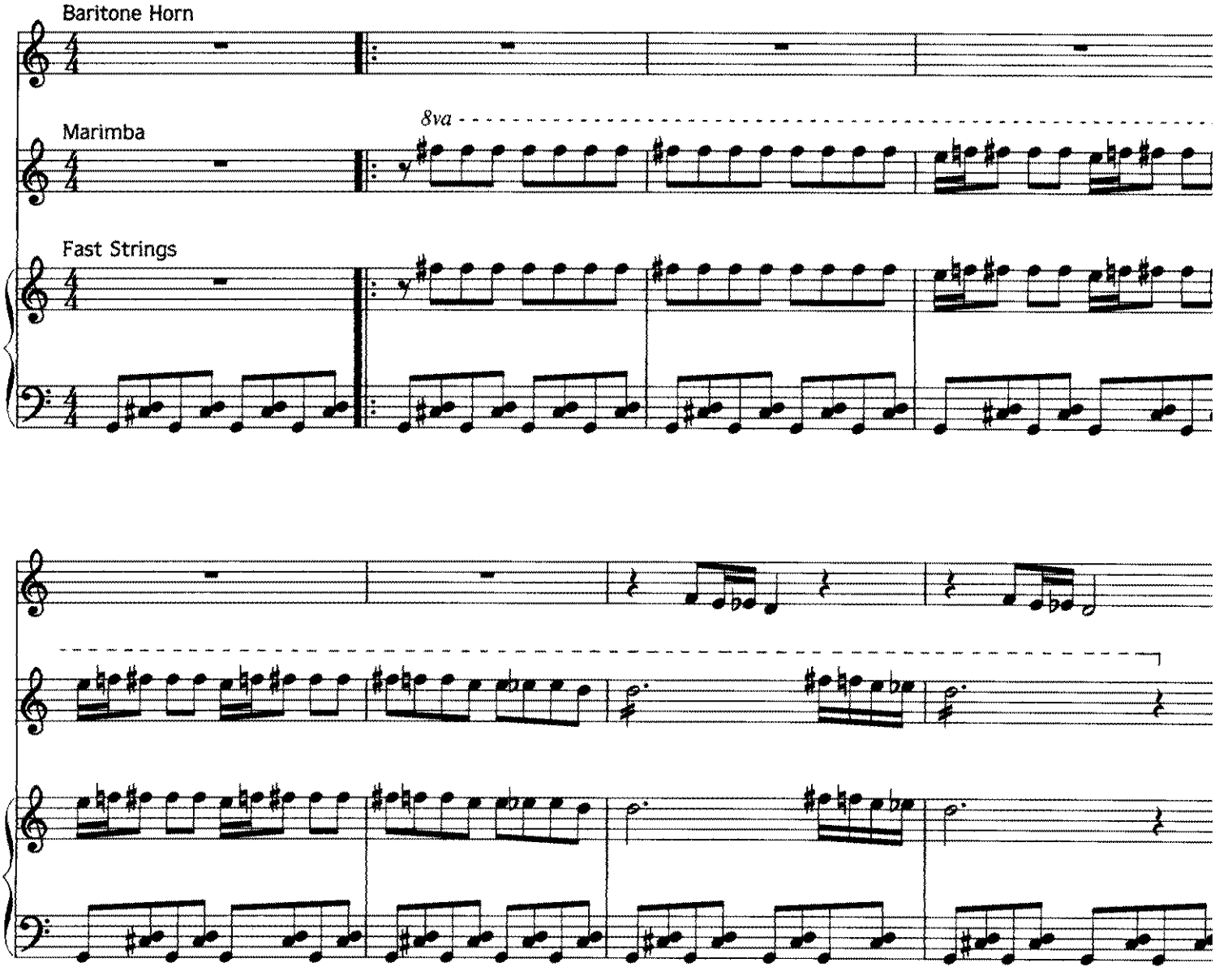


In a higher range, the Marimba in the K250 can be used as a xylophone, which often doubles the melody in orchestral music.

## Sabre Dance

Aram Khachatu

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# Harp

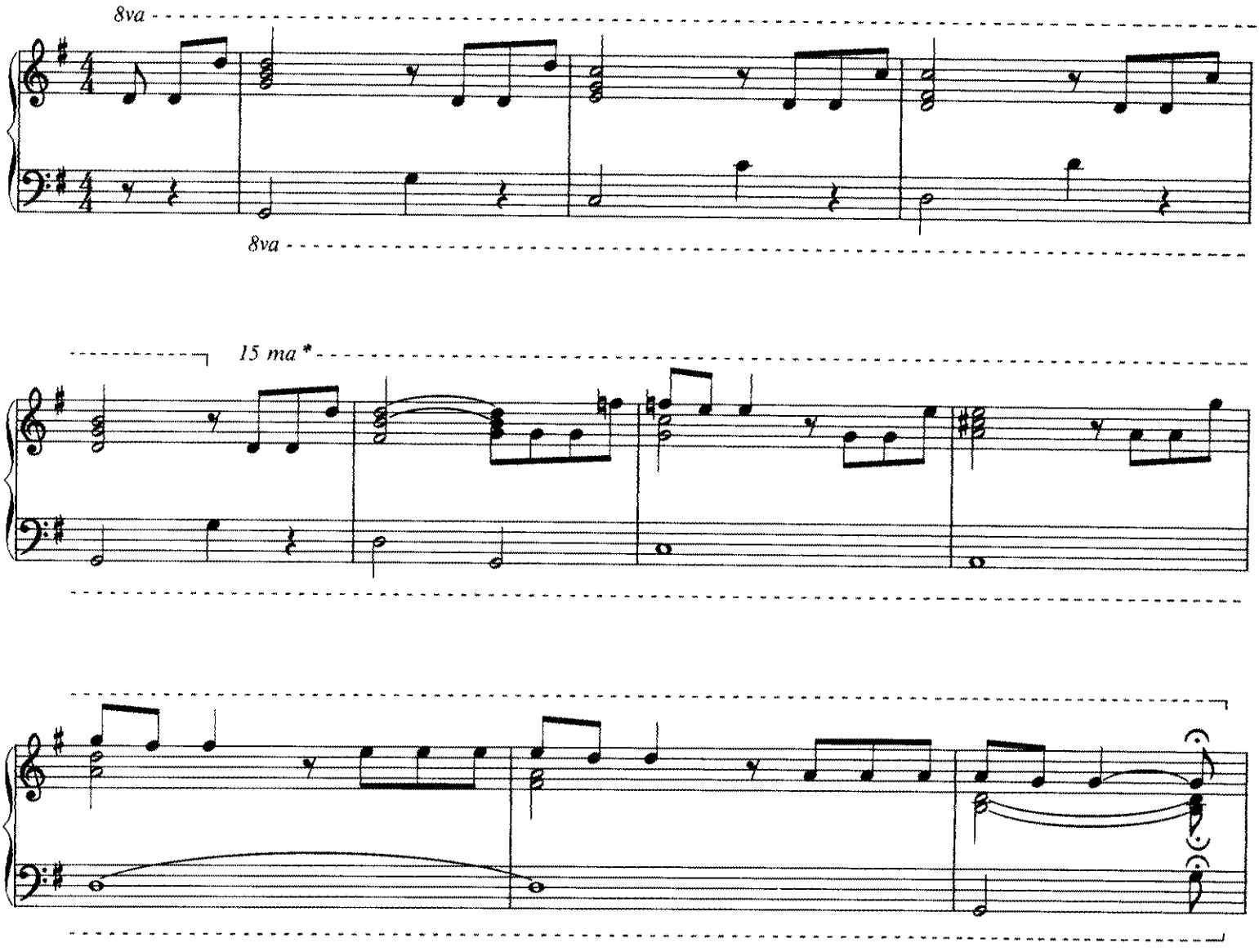
The most important thing to know about the Harp in the K250 is that pressing a low key produces an arpeggio that repeats as long as the key is held down, while pressing a high key produces a single upward glissando. Each key sounds the major chord of that name (the C key plays a C major chord, for example).

Minor chords can be approximated by playing the key that is the third of the minor chord. For example, in the piece below, at the beginning of the fifth full measure, there is a B minor chord in the right hand, and the left hand plays D. Notice that this works only when the root of the minor chord — the B, in this case — is present in one of the parts (in a Sequencer arrangement, it might appear in the bass line).

## You Needed Me

Harp/Cathedral Choir

Words and Music by
Randy Goodrum

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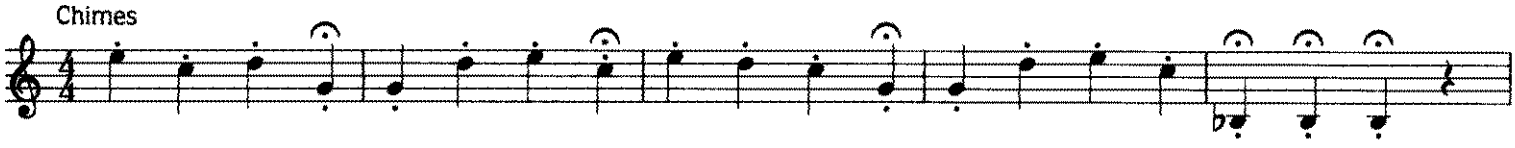
*Play two octaves higher than written.

# Chimes

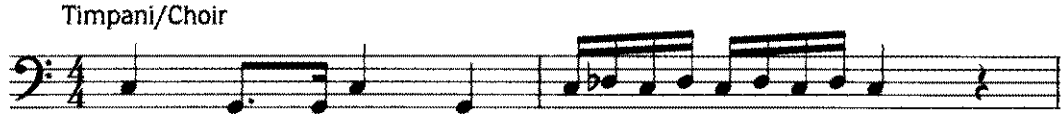
Playing the Chimes on the K250 staccato allows them to ring; holding a key down produces a muted tone. Play only one note at a time.




# Timpani

Timpani usually appear in sets of two to four. They are tuned to the main notes of the key in which a piece is played — usually the first and fifth notes of the scale, and possibly also the second and third or second and sixth.

Tremolos, which a timpanist plays like the one-note tremolo on the marimba, need not be played on a single key on the K250. Instead, alternate the main note with the note a half step higher; it sounds just as convincing, and is easier to play.



# LIVE PERFORMANCE TECHNIQUES

The K250 offers you more than the ability to imitate individual instruments; you can also combine these sounds in various ways. This section provides a brief discussion of some of the ways of putting sounds together in a live performance.

## Using the Keypad Banks

If you listen to an instrumental group perform, you'll find that variety is an essential element to an interesting performance. The melody isn't played by the same instrument all the time. The same principle should apply to your playing on the K250; when playing a song, for example, use one keyboard setup for the verse and another for the chorus.

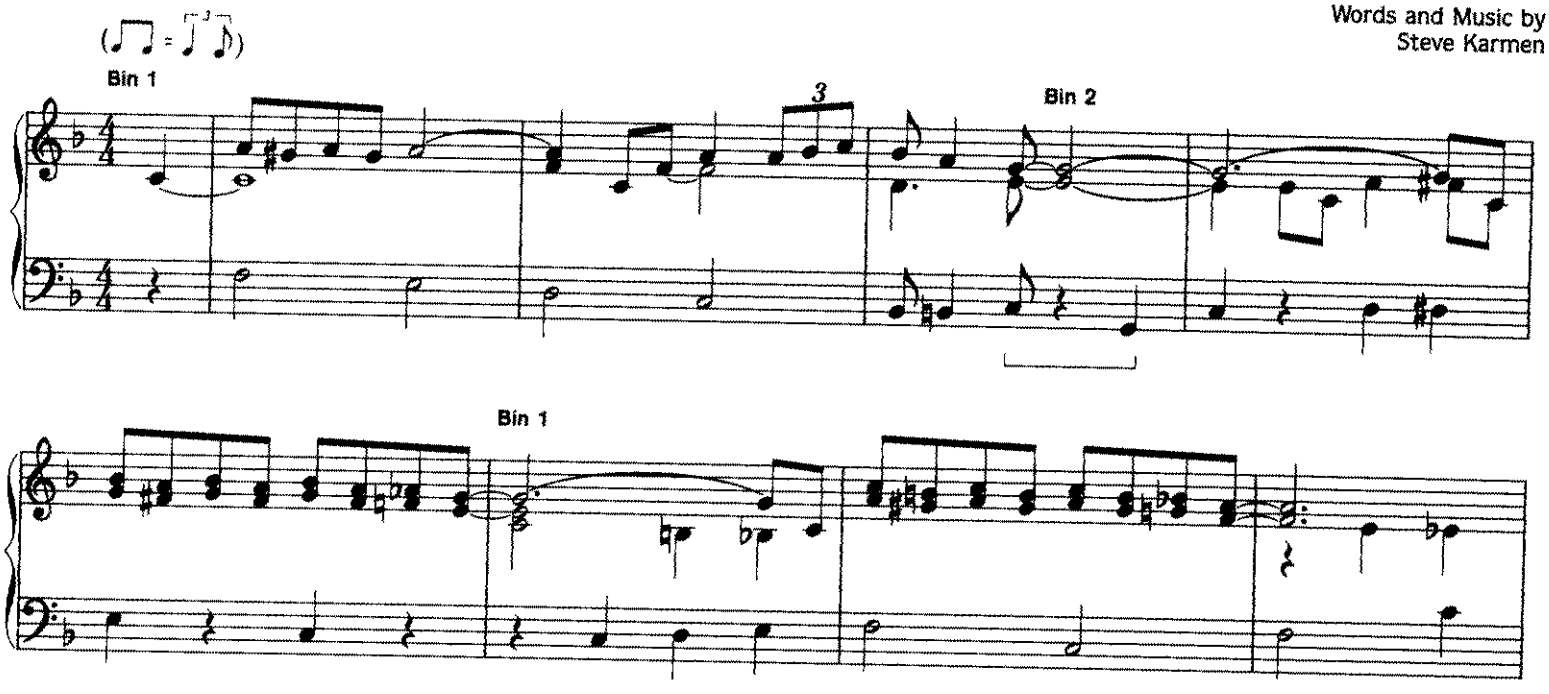
The best way to change setups in performance is by putting them into the keypad banks. Then when you want to change, you can do so by reaching up with whichever hand is free and pressing a single button. You'll find basic information on the keypad banks in INTRODUCTION TO THE KURZWEIL 250, pages 12-13. On page 26 of the same book is the procedure for putting the keyboard setups you desire into the banks.

One interesting playing technique that lends itself to use with the keypad banks is "stacking" notes. This technique, discussed on page 15 of INTRODUCTION . . . , involves holding a note or notes played on one keyboard setup — either manually or by using the sustain pedal — while changing to a new keyboard setup and playing new notes on that setup. Realistically, you probably won't have too much use for holding a brass-and-strings chord with one hand while playing a drum solo with the other. But one way you **can** make effective — and frequent — use of "stacking" notes is by taking those places where you change setups in a song and making them **overlap.** One example will do to suggest the possibilities here. Before you start to play, "edit" one of the keypad banks so that the Fast Strings setup is in Bin 1 and the Kurzweil Grand Piano is in Bin 2. Use your left hand to change bins where shown.

### There's Nothing Like The Face Of A Kid Eating A Hershey Bar

(Hershey Chocolate Bar)

Words and Music by
Steve Karmen

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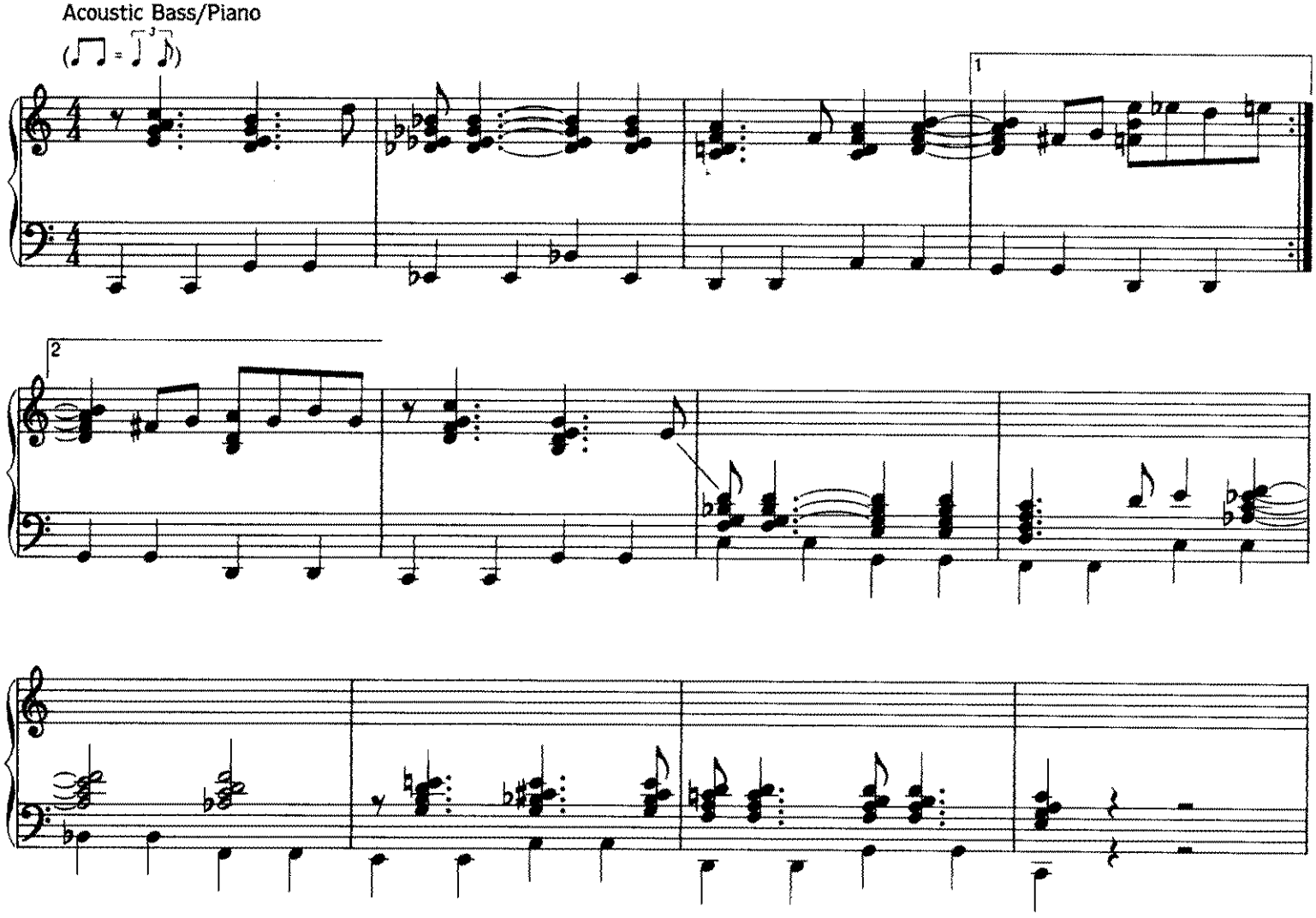
# Split Keyboard Setups

The way to imitate an instrumental ensemble when playing the K250 live is to use a split keyboard setup. The "classic" example of the split setup is the Acoustic Bass/Piano.

## The Lady Is A Tramp

(From "BABES IN ARMS")

Words by Lorenz Hart
Music by Richard Rodgers

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As effective and useful as this keyboard setup is, however, it is only a rudimentary example of how the K250 keyboard can be deployed. How about a three-way split of Guitar, Flute, and Strings, each playing in its own natural range? From this single keyboard setup you could produce the following sounds:

Guitar alone
Strings alone
Flute alone
Guitar with Strings
Guitar with Flute
Strings with Flute

See the section on the Keyboard Setup Editor in INTRODUCTION TO THE KURZWEIL 250, on pages 27-32, for information on creating your own keyboard setups.

# Layered Keyboard Setups

The easiest way to achieve a "full" sound is to use layered keyboard setups. With these setups, each key you press produces two or more sounds. Because they multiply the number of sounds per key, however, they divide the number of keys you can play before channel stealing sets in. So when playing layered setups, keep the following guidelines in mind:

- Reduce your harmonies to their essential elements; don't play more notes at a time than you have to.
- Use the sustain pedal only to allow you to move your hands from one part of the keyboard to another without interrupting the sound — not to build up large, multi-note chords.

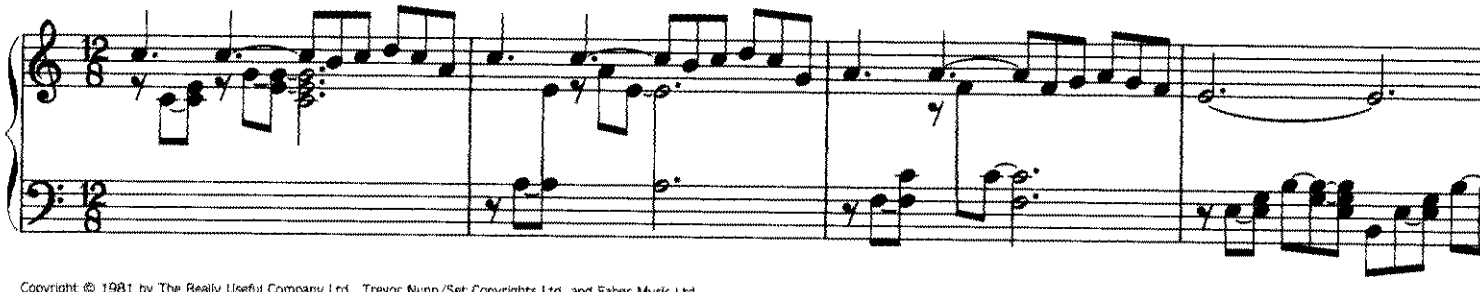
Slow Strings & Guitar is an excellent example of a layered setup, for the two sounds complement each other perfectly: one has a fast attack, the other a slow attack; one decays, the other sustains.

## Memory

(From "CATS")

Text by Trevor Nunn after T.S.
Music by Andrew Lloyd We

Slow Strings & Guitar



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Layered setups that use a sound plus a transposition of that same sound an octave higher or lower can be used in place of the basic, undoubled sound where more power is desired. Examples of this kind of setup are Layered (Doubled Acoustic) Guitar and Doubled Choir.

A special kind of layered setup should be mentioned as a way to change sound instantly without using the keypad banks: the dual-touch setup. In this category are Dual Electric Bass, Dual Attack Organ, and Dual Attack (Slow to Fast) Strings. With these setups, you can obtain different sounds depending on whether you press a key quickly or slowly. NOTE: These setups do **not** pose the same channel-stealing limitations as other layered setups, since only one sound per key is produced at any one time.

# Sound Effects

There are several keyboard setups in the K250 that do not correspond to any real instruments. Some, such as Cow Piano, can be used as substitutes for real instruments where a novel sound is desired. Others, such as Endless Glissando, call for a freer approach. This latter category of sounds can be thought of as sound effects; use them to establish a mood, or to punctuate a musical thought, in a manner similar to the background music in TV and movies.

# USING THE SEQUENCER

Perhaps the most powerful facet of the K250 is the Sequencer, which is capable of recording and playing back multi-part arrangements using several different sounds simultaneously. The basics of operating the Sequencer are covered in INTRODUCTION TO THE KURZWEIL 250, pages 20-23. The discussion below covers the musical aspects of using it. Following that are three sequences for you to record.

- What to use for music: Depending on the style of music you are interested in, you should be able to buy arrangements ranging from those for piano and voice to full band and orchestral scores. Scores for small ensembles are best suited to the K250. In addition, arrangements written specifically for sequencers such as that in the K250 are beginning to make an appearance.

- Record the parts in the following order:

  1. A chordal part that conveys both harmony and rhythm. This gives your ear something to follow on subsequent tracks. Don't start with the drums, since it's too easy to lose your place with them.
  2. The bass line.
  3. Any other accompaniment parts.
  4. The melody.
  5. The drums, if any.

- Follow the Click Out, if you wish, to maintain an even pulse. An alternative is an ordinary metronome. If you use the Click Out, the most ideal setup includes an audio mixing board, so that you can turn the volume of the click up or down (a mixer also allows you to control the level of reverb in the sound, if you have a reverb unit). If you don't have a mixer, the next best thing is to plug a pair of headphones into the Click Out jack, and listen to the click through the phones (perhaps over only one ear) while your playing goes through the loudspeakers of your sound system. If your headphones don't have volume controls on them, the click may be too loud; in this case, hang the phones around your neck rather than putting them over your ears.

- Remember that the best music is rarely the most mechanically precise. Quantization is beneficial sometimes — with drum parts in pop and disco tunes, for example (remember that if you plan to quantize a track, you must follow the Click Out when you record it) — but at other times it detracts from the human feel that makes the music really exciting, leaving only a machine-like monotony. The same holds true for recording at a slow tempo: sometimes it's necessary to do this in order to play especially difficult passages; but at other times, what you gain in precision is lost in emotion. In short, exercise some musical judgement in deciding how exact your sequences need to be.

- Don't make your tracks too "full." If you record track after track of multi-note chords, you work against yourself in several ways:

  1. The sound becomes muddy and the individual instrumental sounds become indistinct.
  2. The tracks are more difficult to play, in many cases, than they would be if they were single-note lines.
  3. You miss out on using the playing techniques of single-line instruments, such as winds and brasses, that help make your K250 sound authentic.
  4. You run a high risk of channel stealing.

- Be aware of what the Sequencer records and what it doesn't. In addition to notes, it records any changes in keyboard setup. So you can use the keypad banks just as you would during a live performance. What the Sequencer does **not** record are the effects, such as Pitch Bend, Brightness, Chorus, Vibrato, or Timbre Shift.

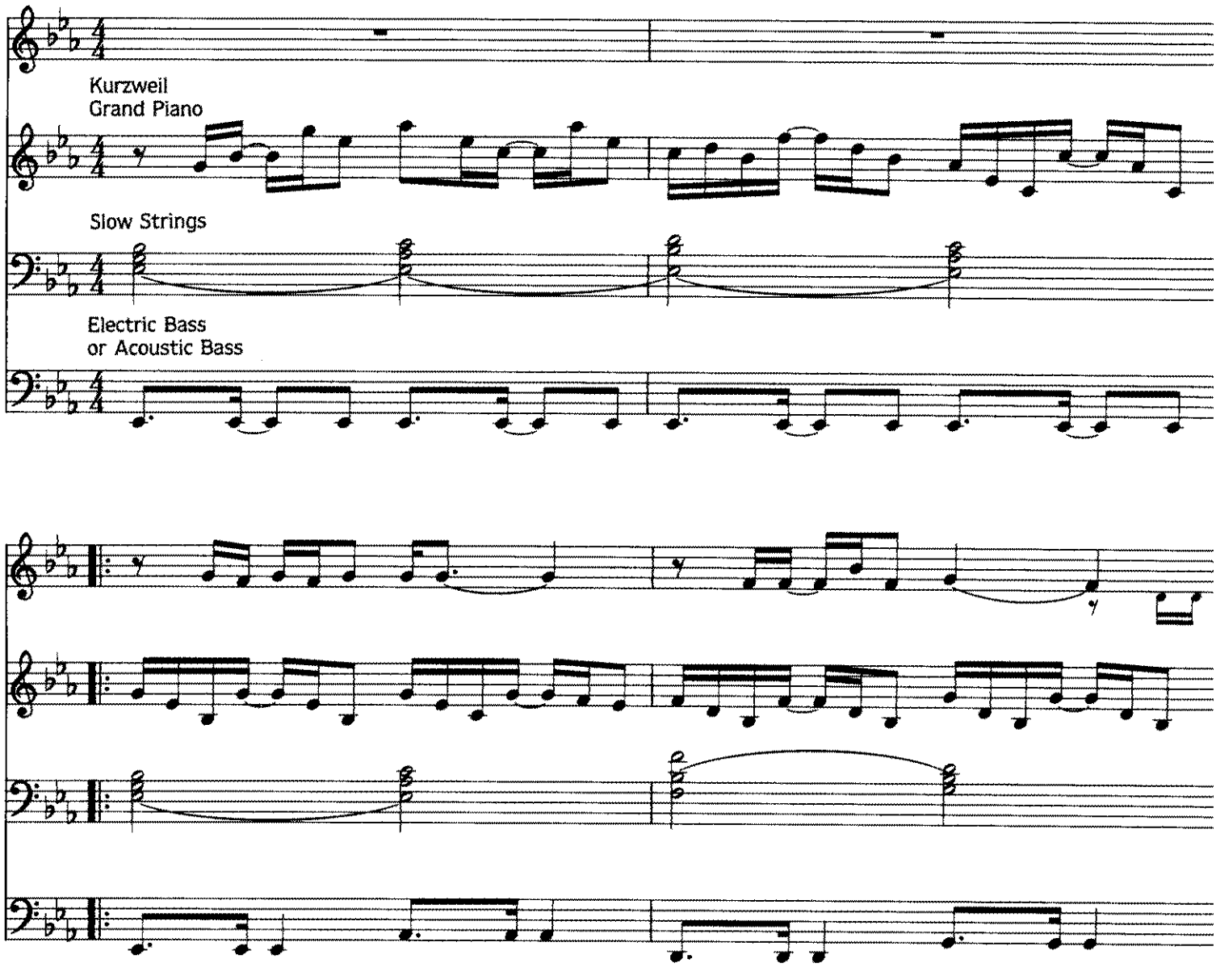
# Notes on YOUR SONG

This sequence is a typical adaptation from a sheet-music arrangement for piano and voice. The Piano and Bass parts are taken from the original piano part; the melody is the original vocal line (the small notes are to be played only the second time through); and the String part fills in with chords indicated in the original by guitar chord symbols.

Record the Piano part first, as suggested on the previous page. In recording the melody, choose whatever keyboard setup sounds good to you. You may even want to put several setups in a keypad bank, changing bins for each new musical phrase. If you use Flute, Trumpet, or Trombone, play the melody an octave higher than written.

## Your Song

Words and Music b
Elton John and Bernie Taup

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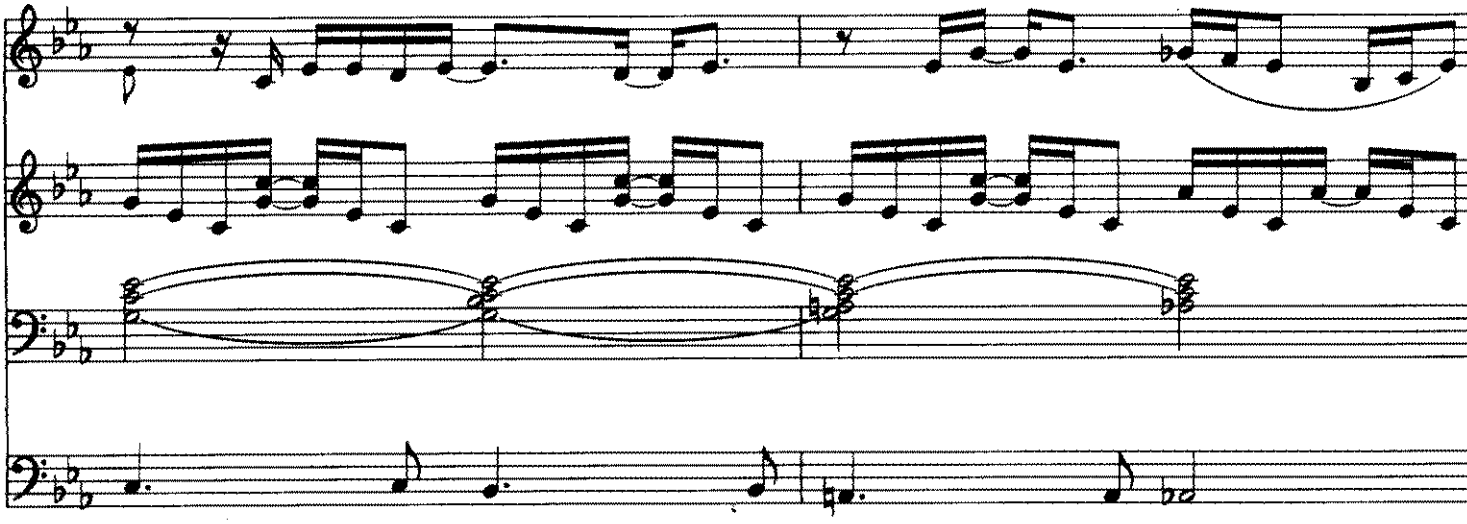
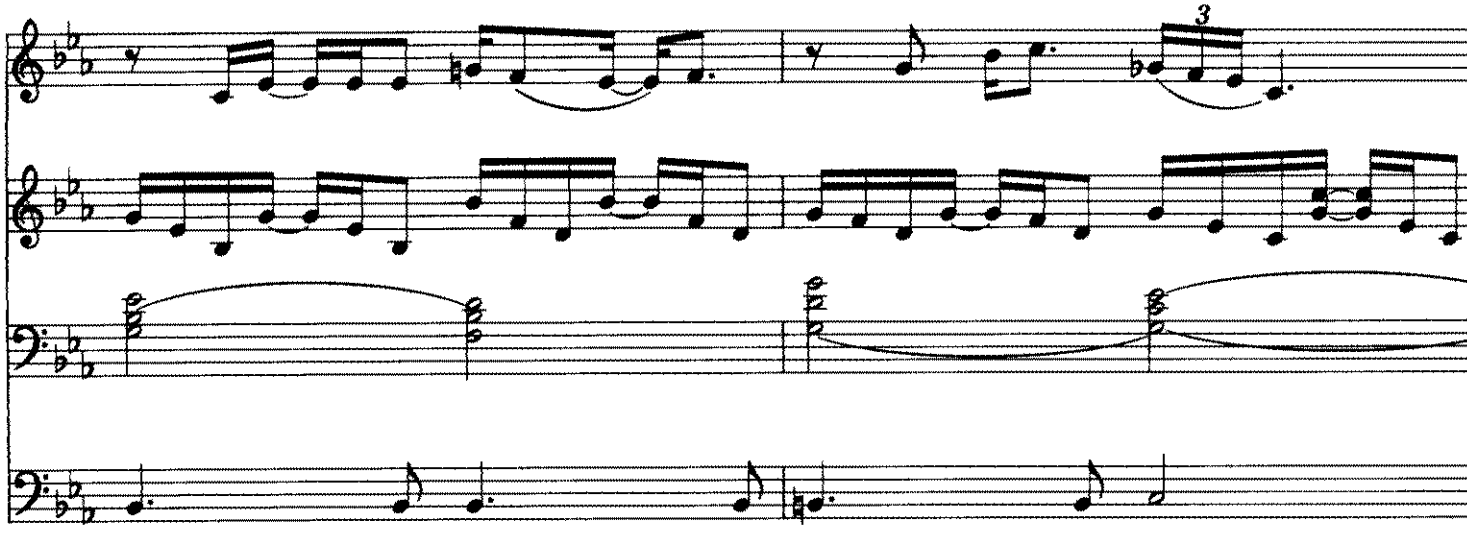
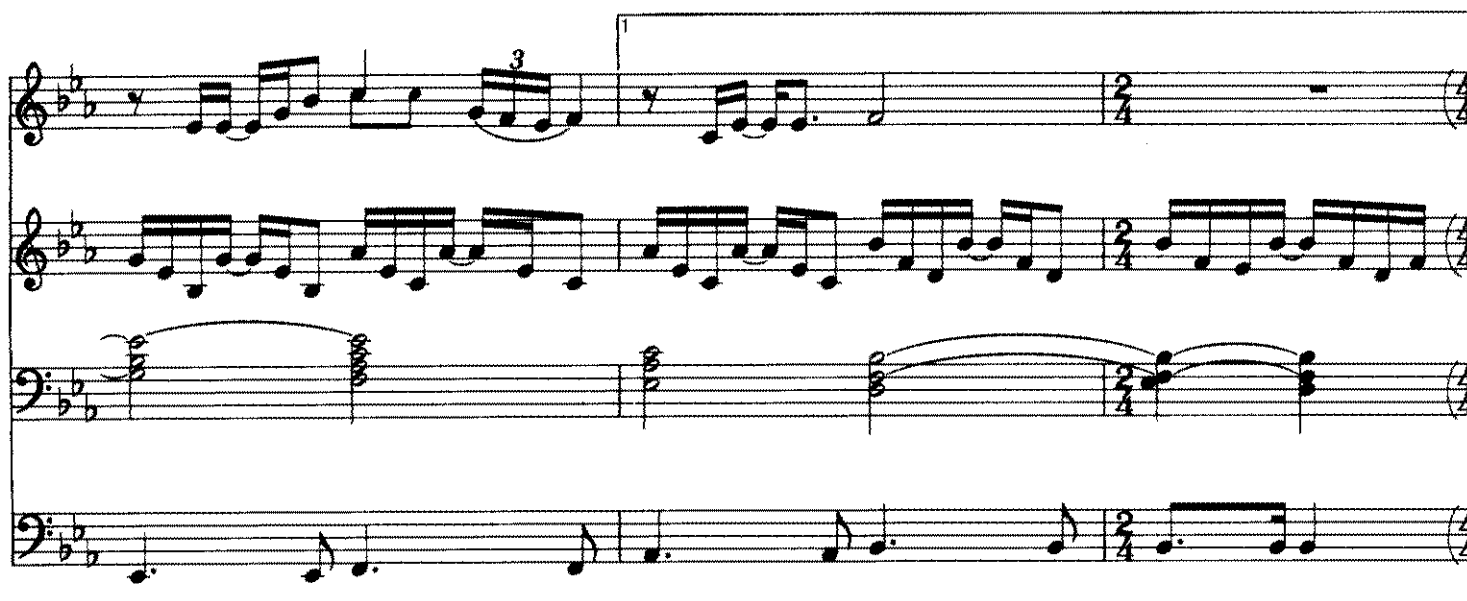
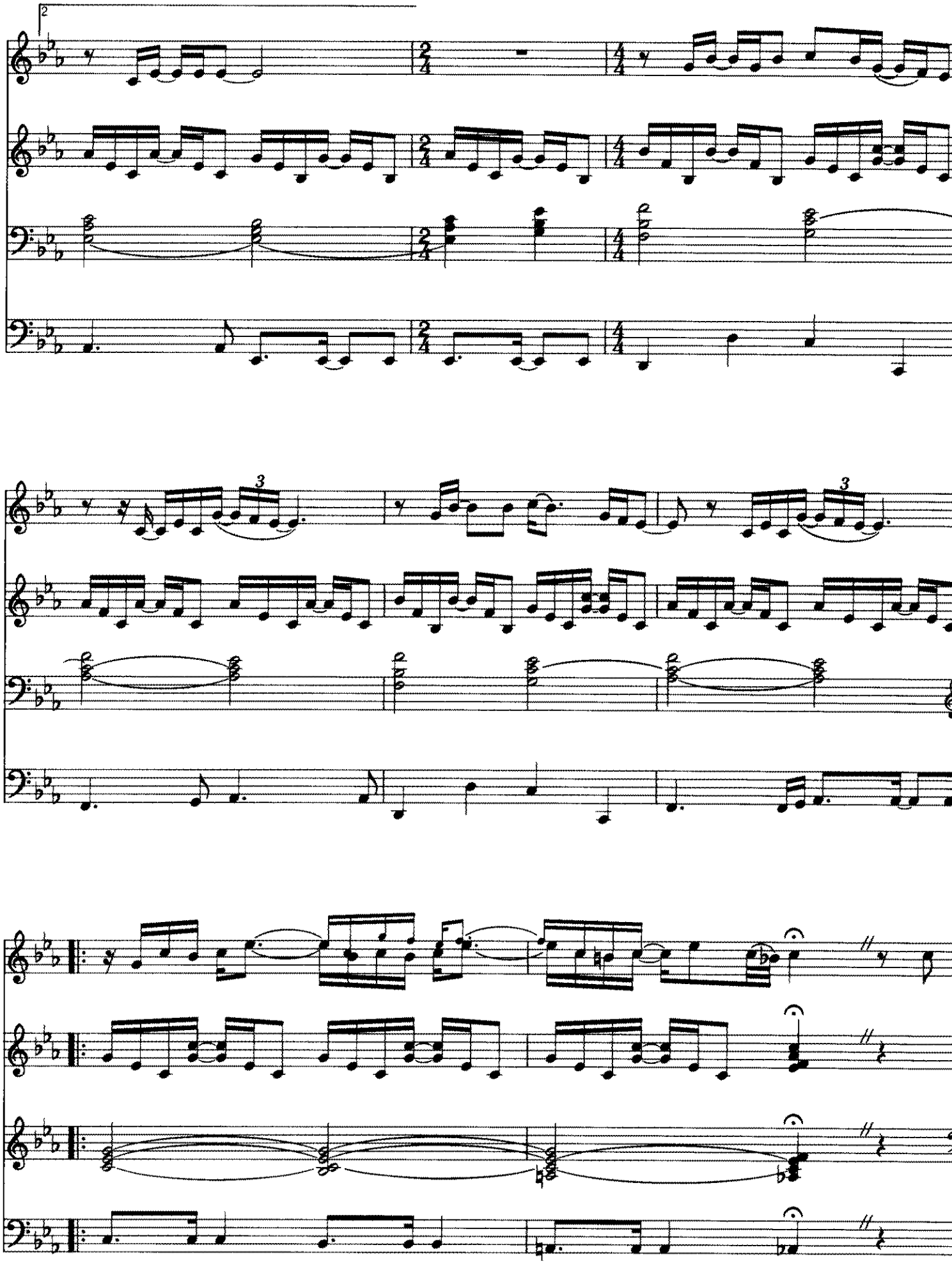
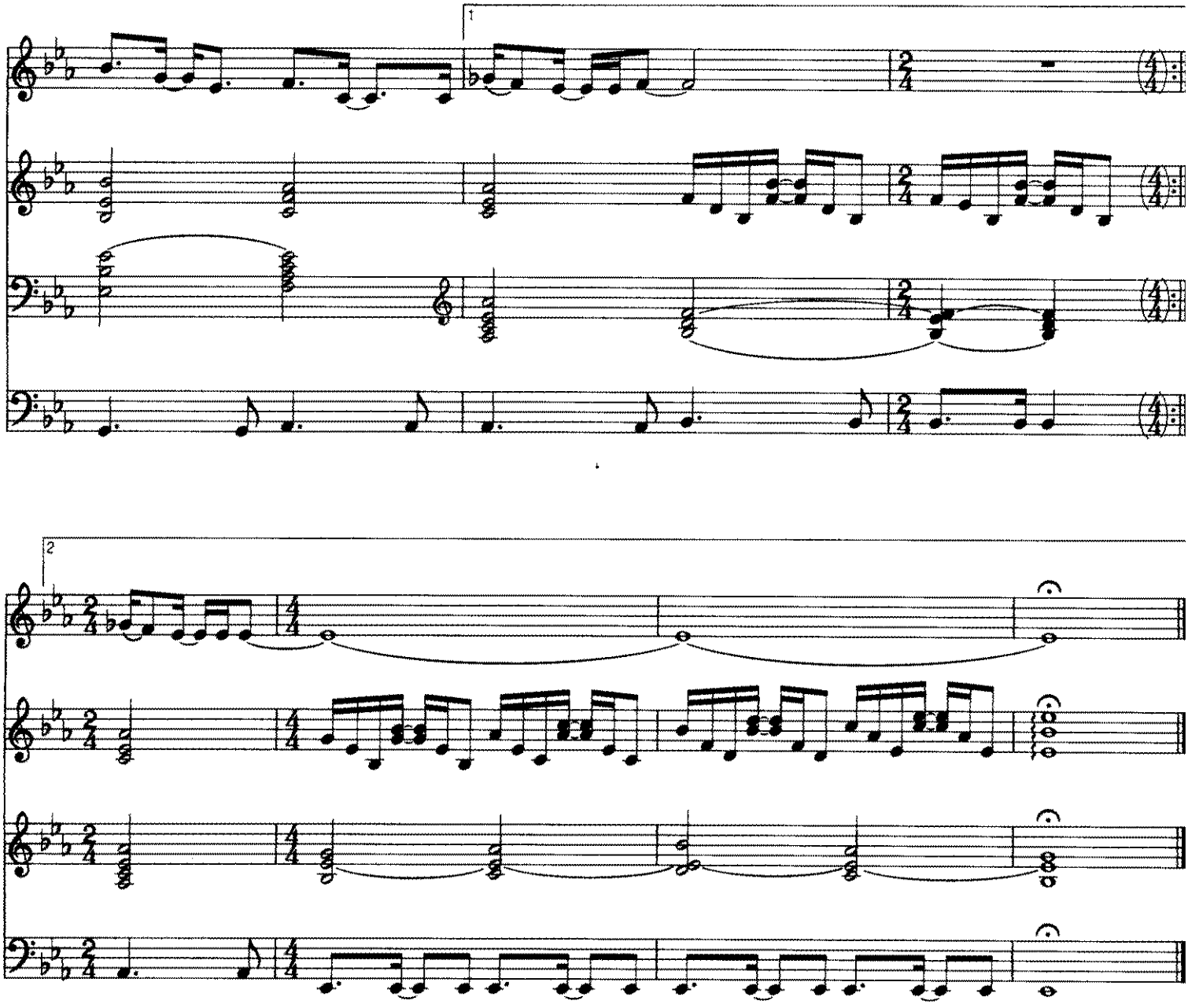






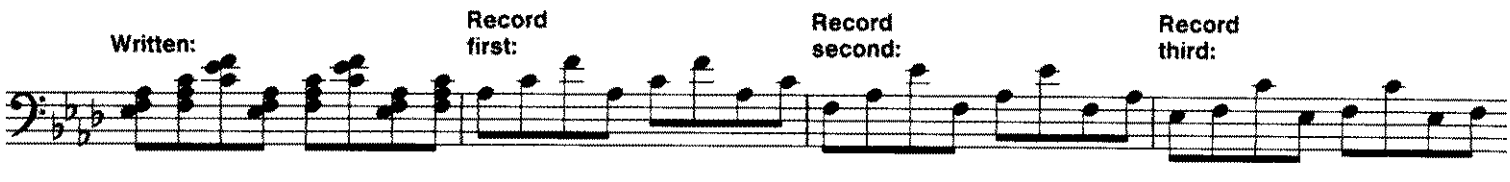




# Notes on IN THE MOOD

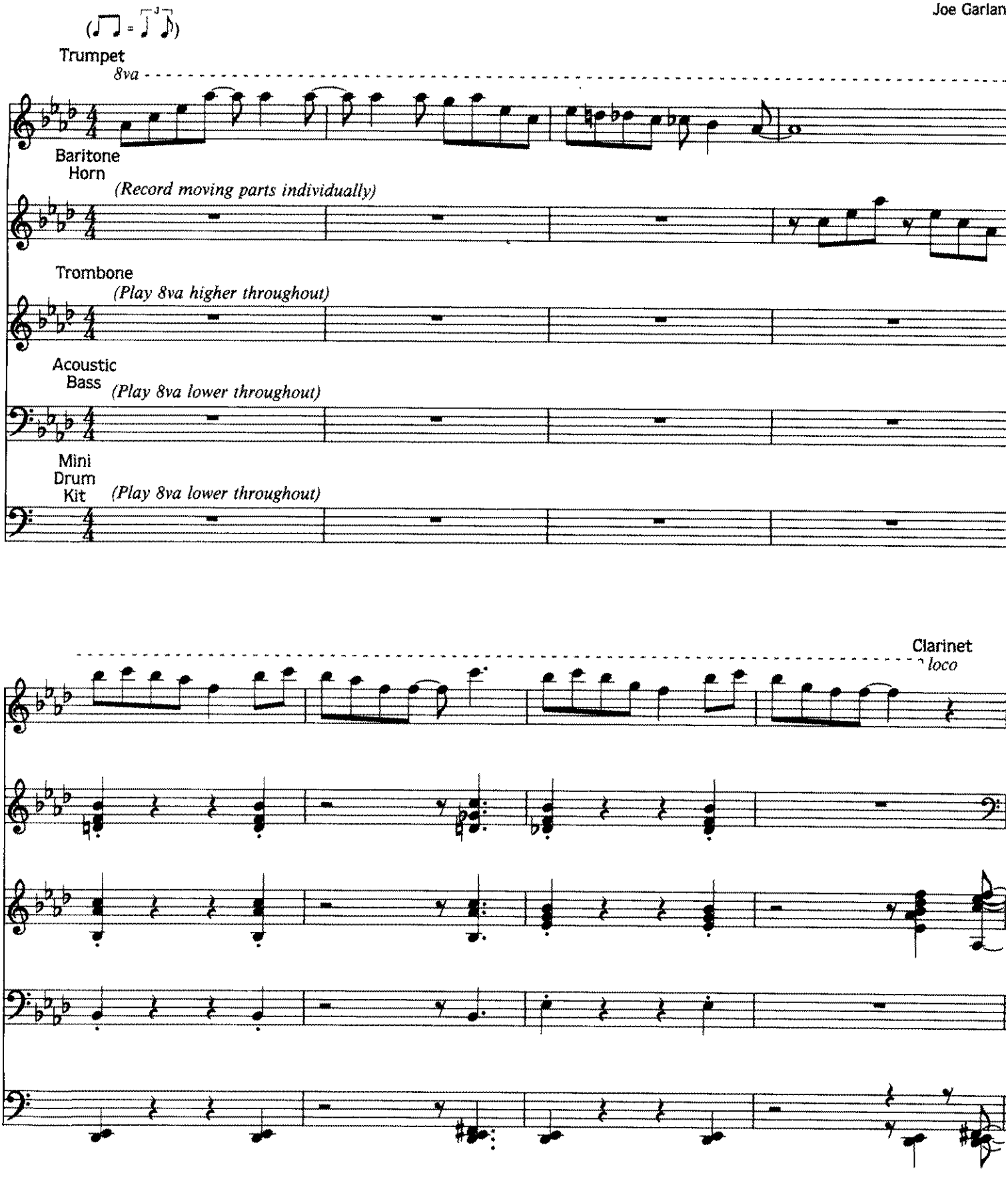
Here's an arrangement that closely reproduces the big-band original. It makes the most sense to record the melody first, rather than an accompanying part; put both the Trumpet and the Clarinet in one keypad bank.

Where the Horn part moves in parallel with the melody, record it as three separate tracks:



# In The Mood

Words and Music b
Joe Garlan

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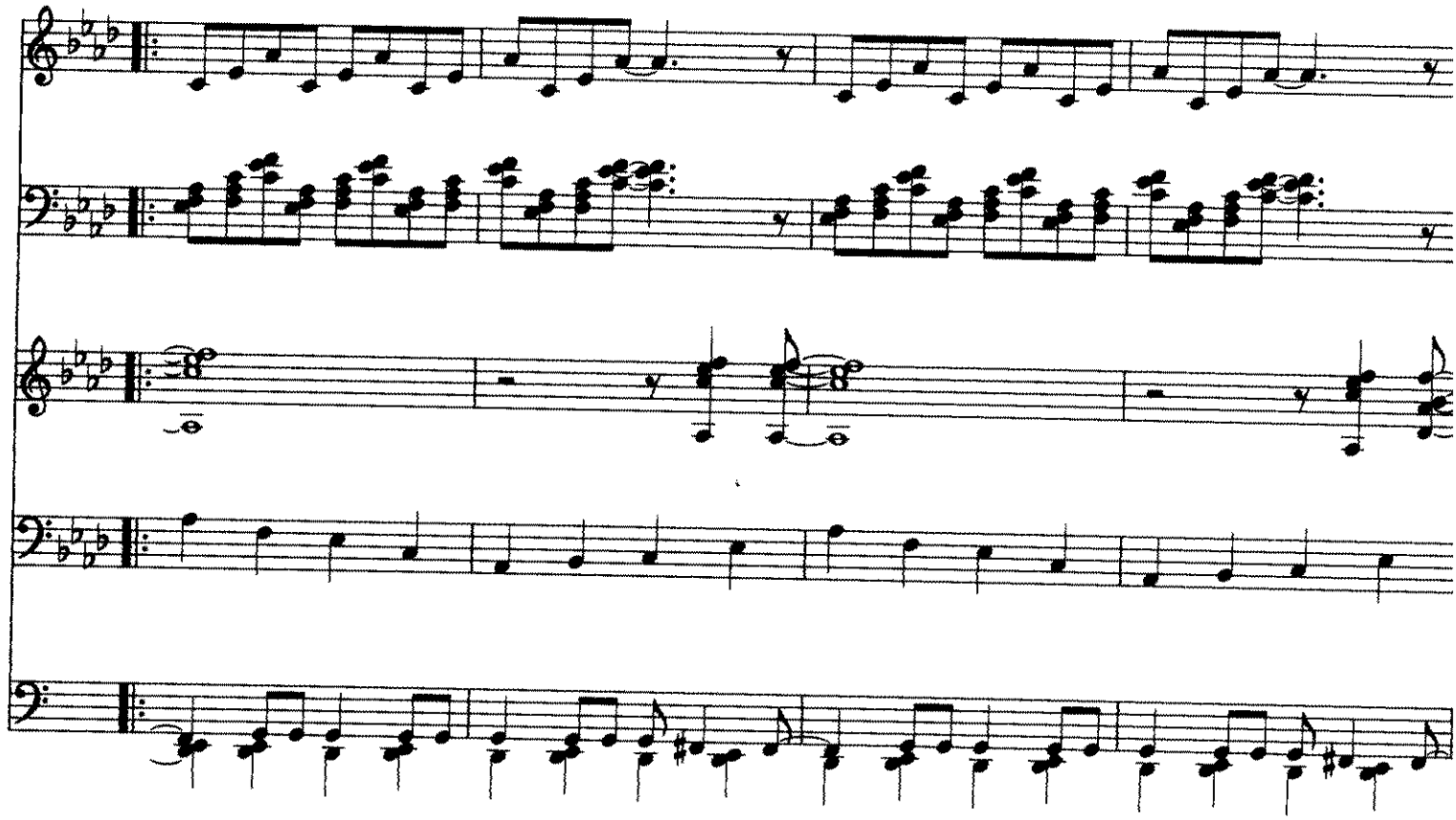
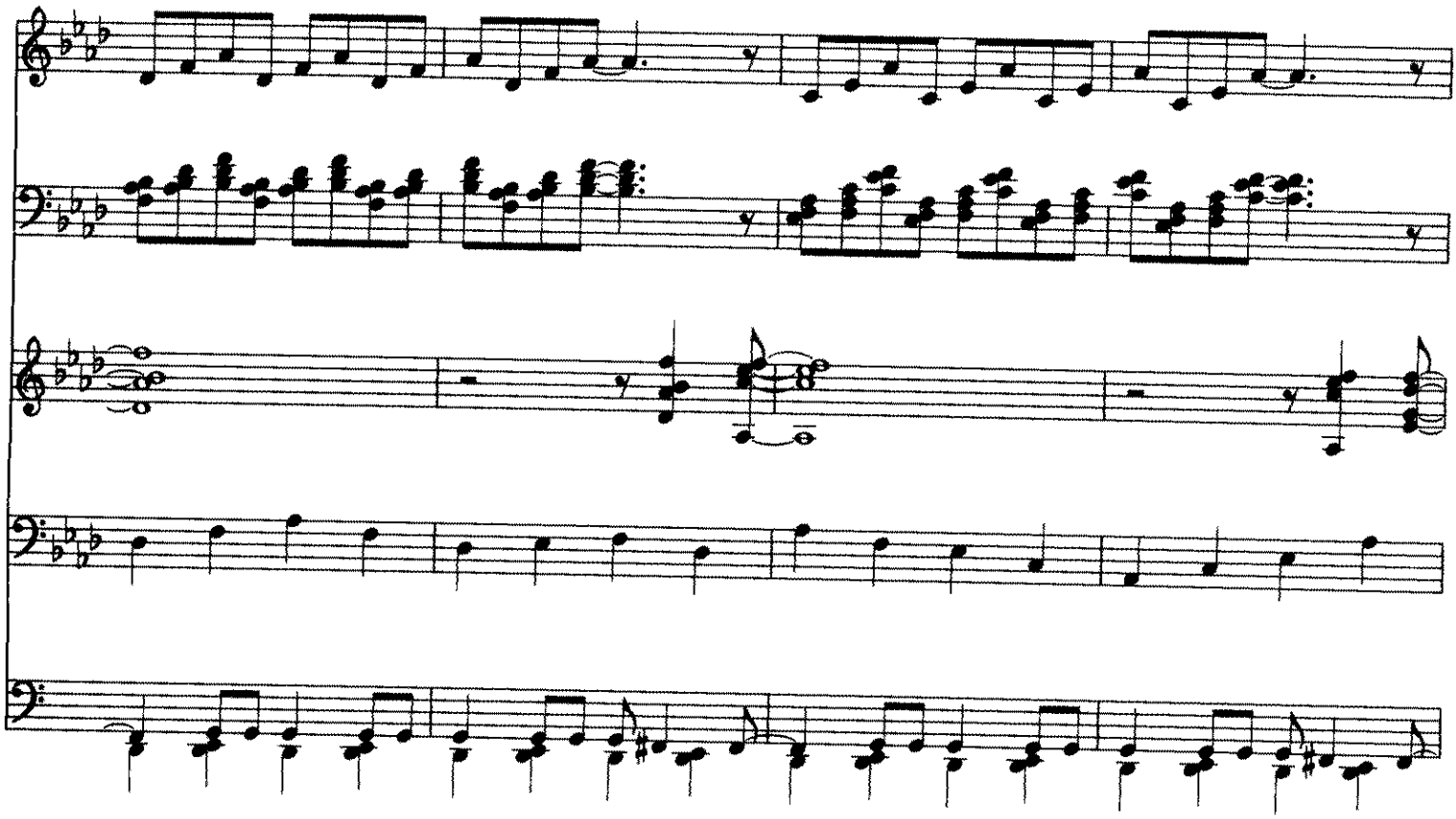
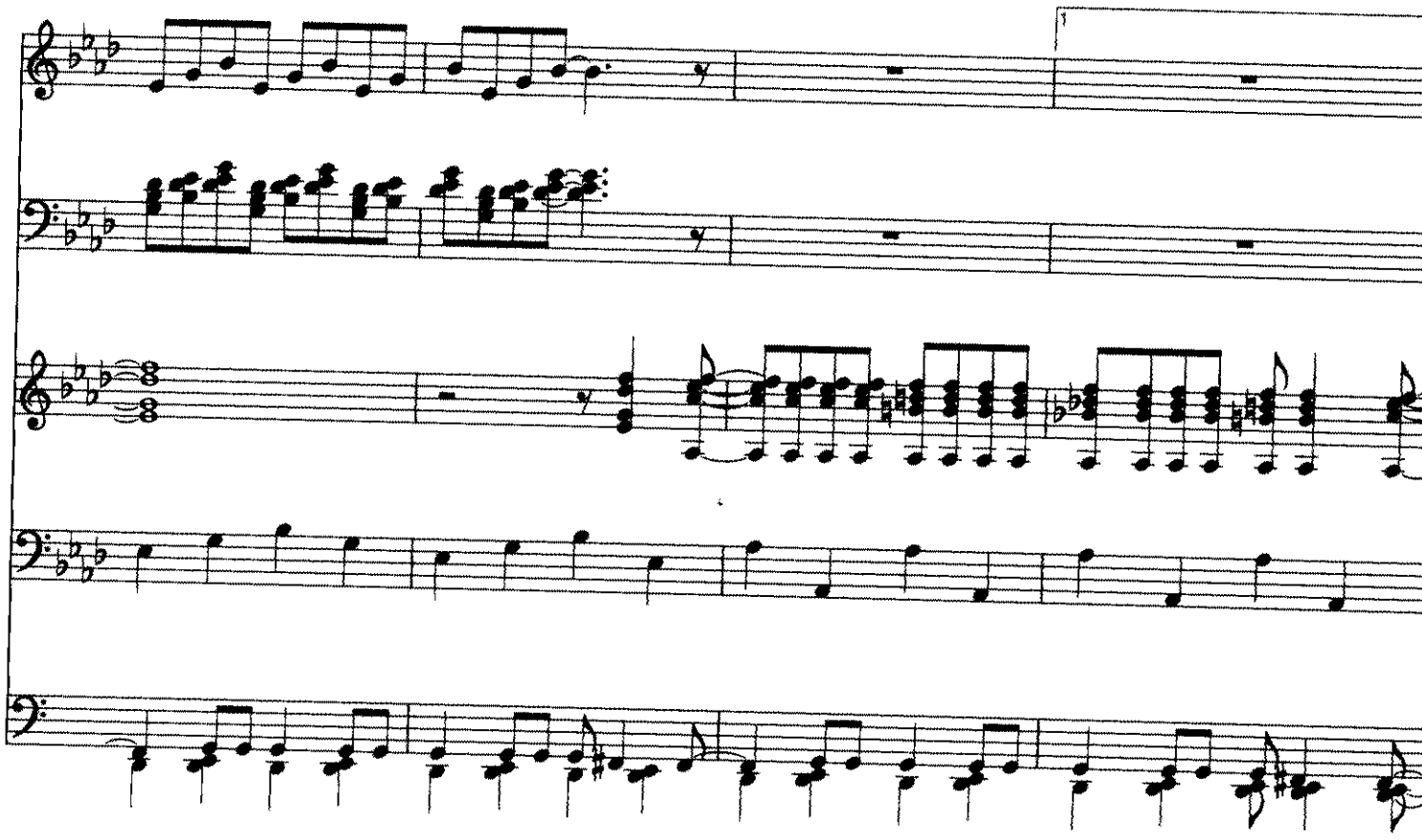
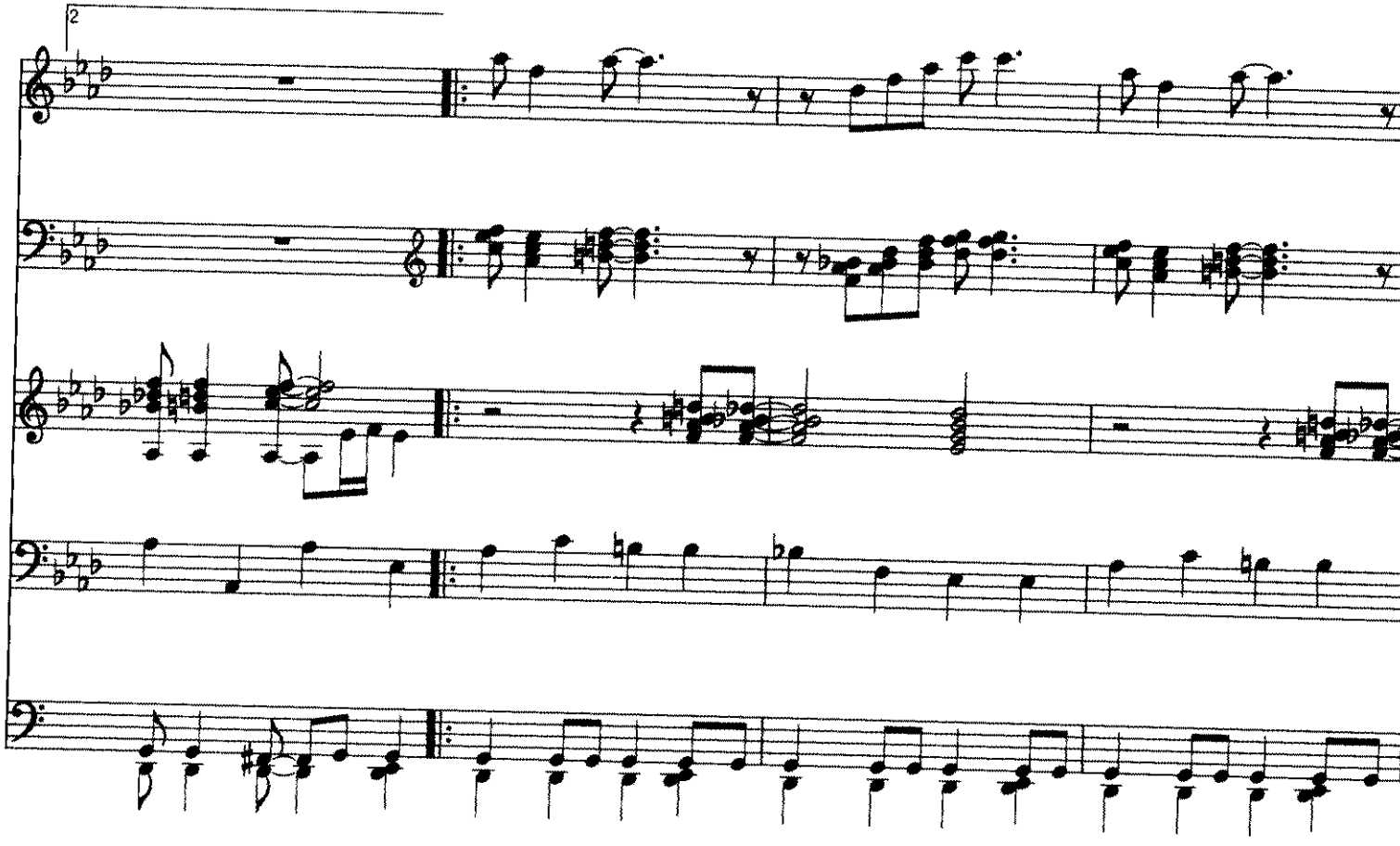
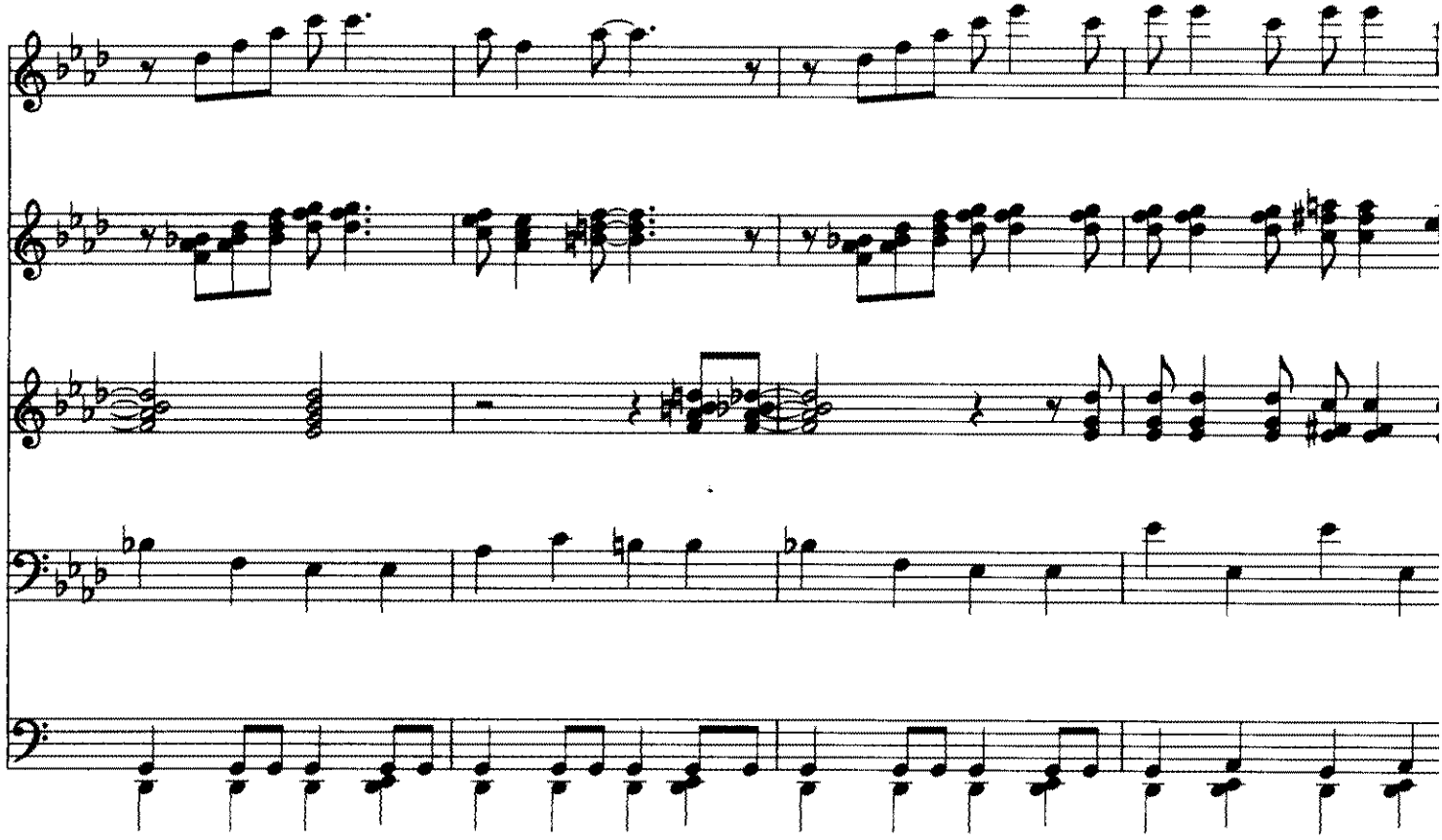
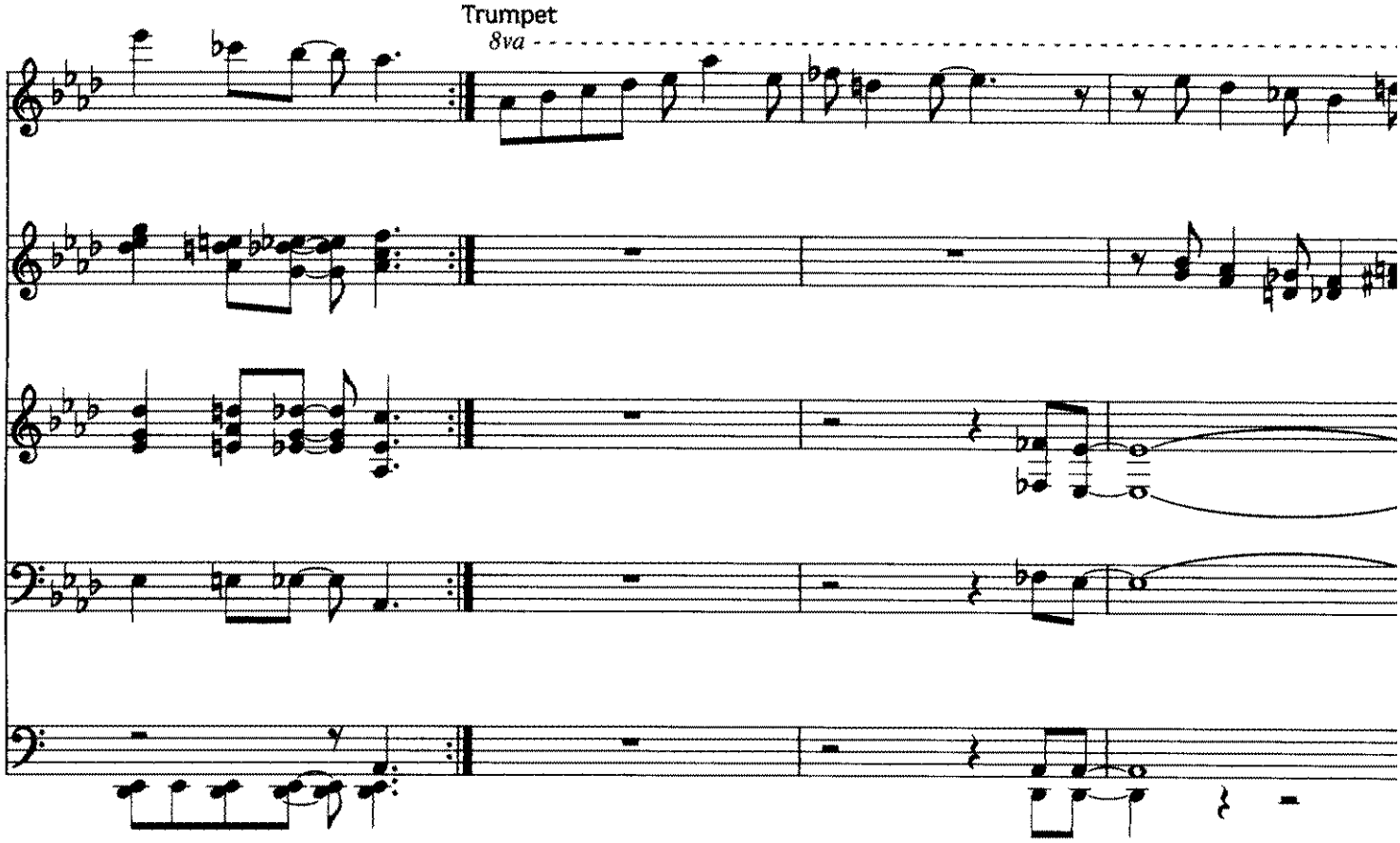


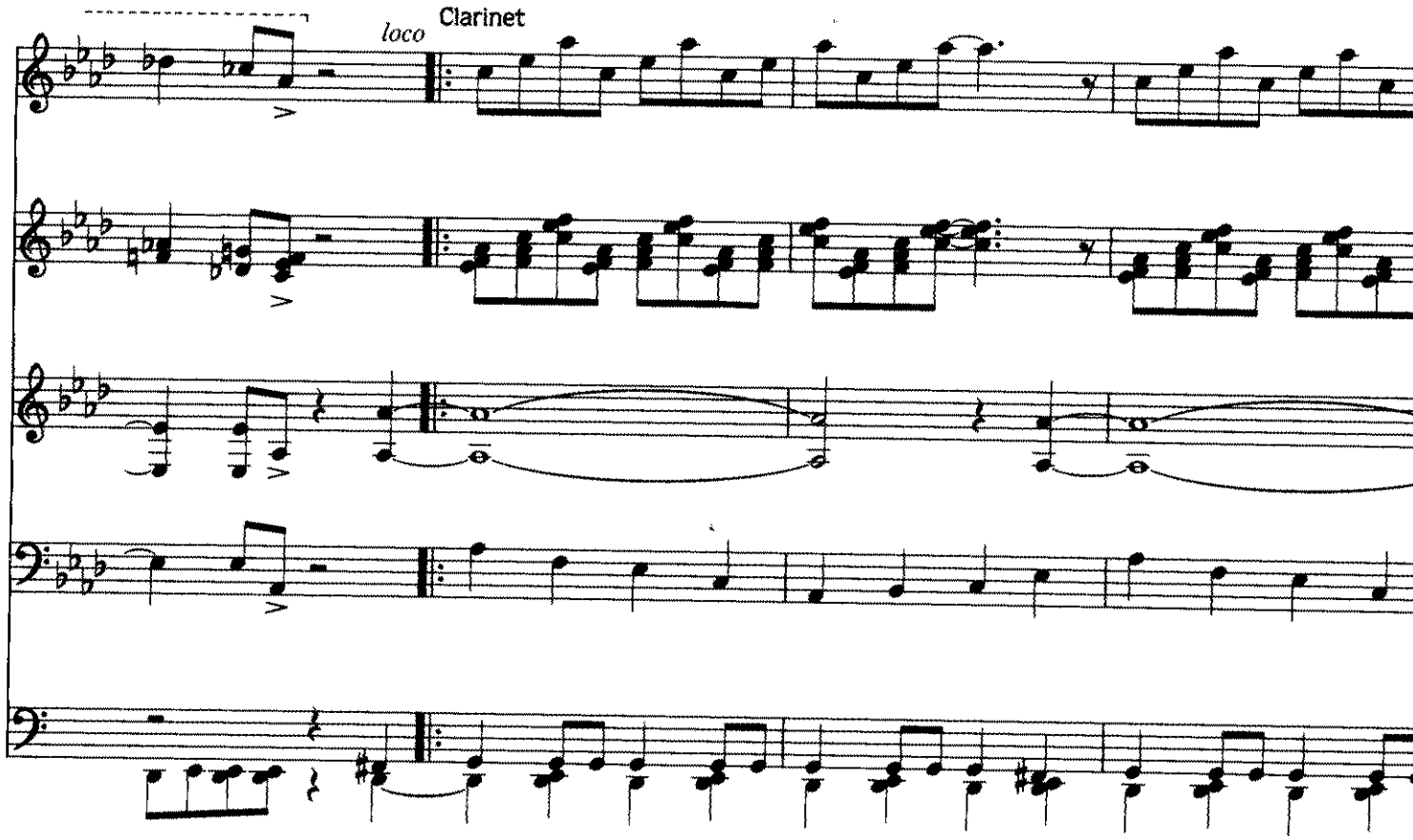


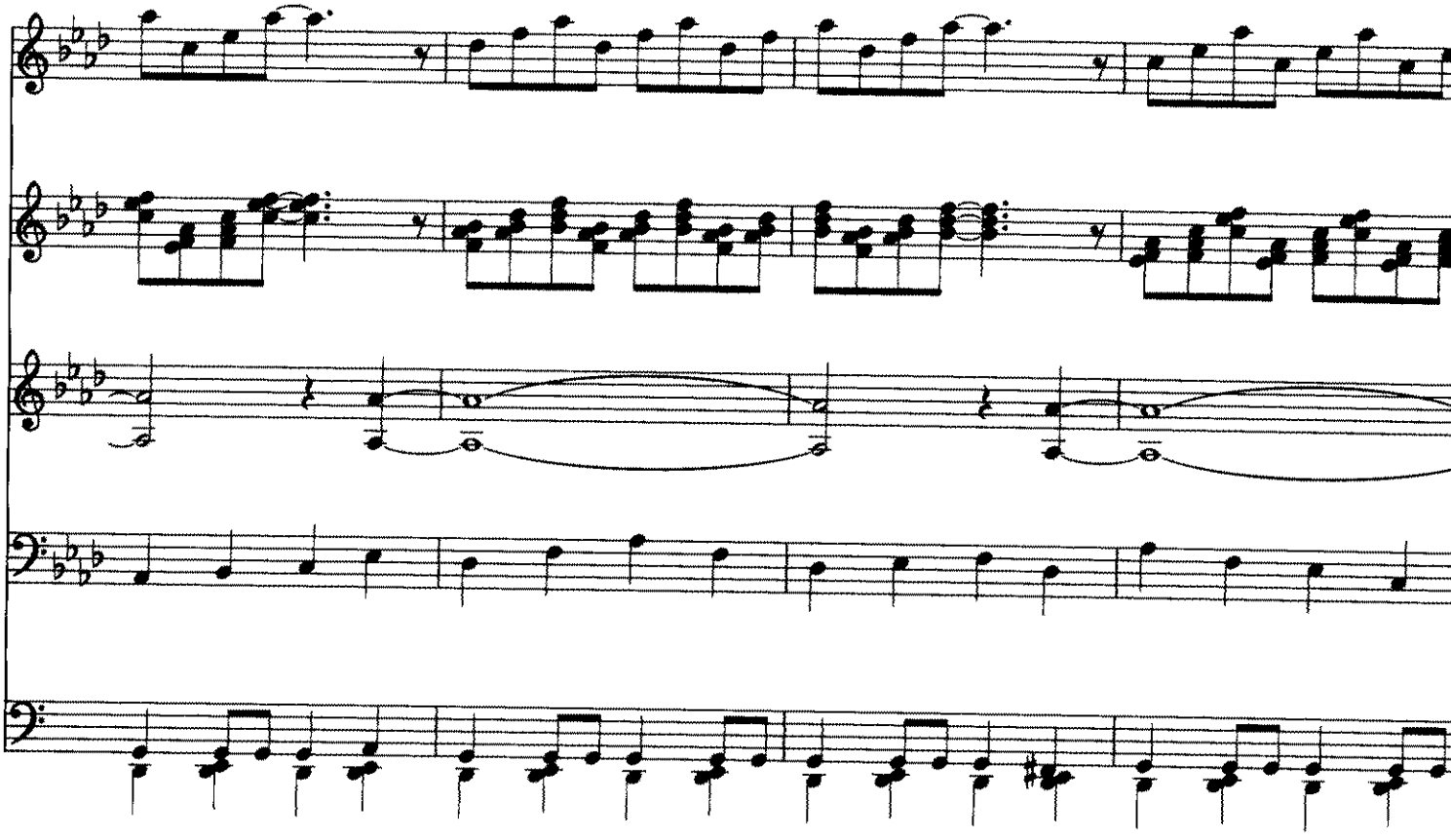

1

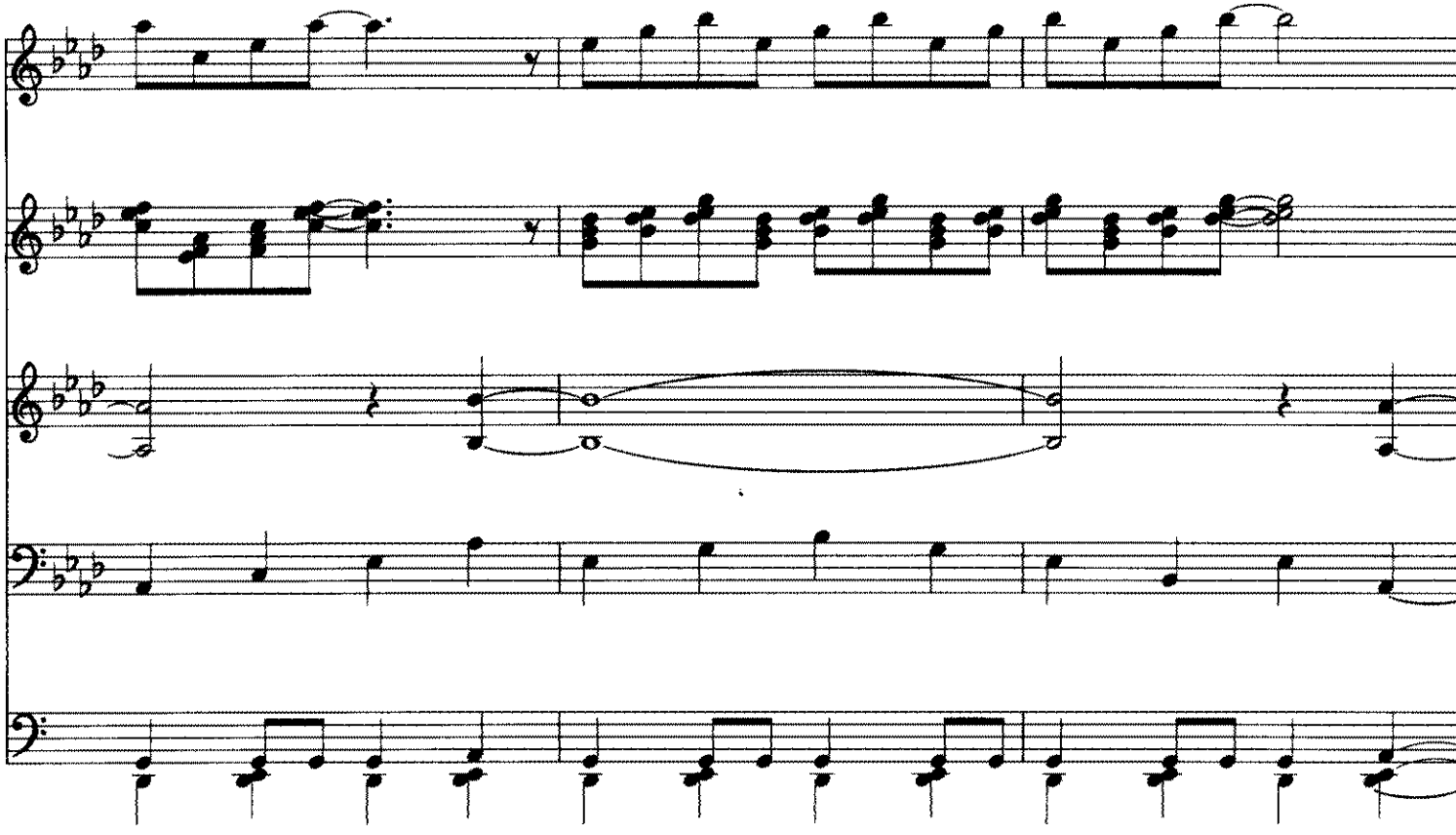

2

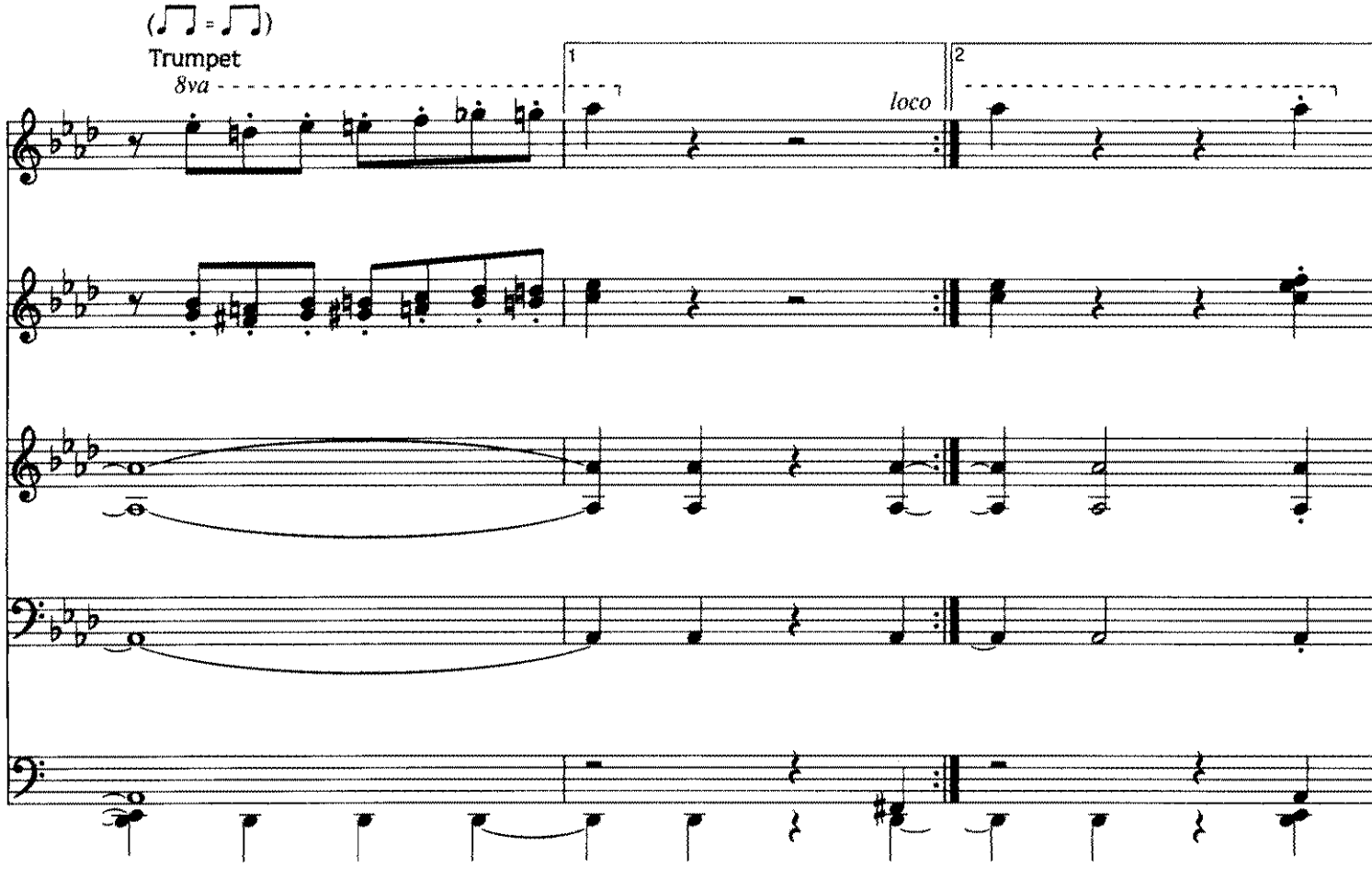



Trumpet
8va


loco
Clarinet






(♩♩ = ♩♩)
Trumpet
8va
1
2
loco

# Notes on
# THEME FROM "ORDINARY PEOPLE"

The Sequence Editor is used to make recording this arrangement as easy as possible, as well as to familiarize you with its operation.

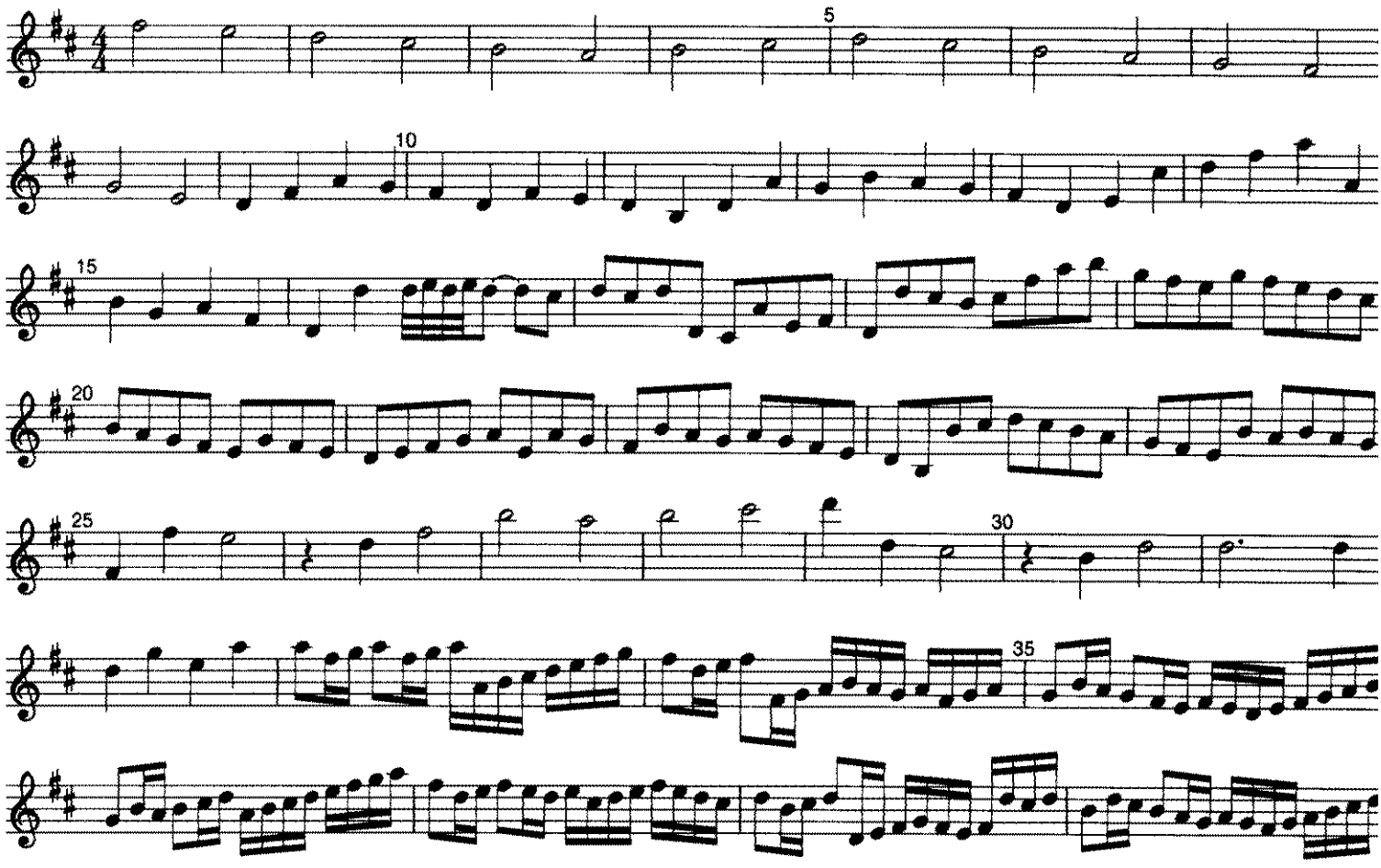
To make things easier still, do the following before starting to record: Move the VOLUME slider to about midpoint. Then press F, 6, SELECT, SELECT, 1, SELECT, SELECT. This reduces the keyboard dynamics to one level — loud — freeing you to concentrate on the notes. When you play the completed sequence back you can use the VOLUME slider to add crescendos and decrescendos. (To return the keyboard dynamics to the factory default setting, repeat the sequence of button pushes above, substituting 7 for 1.)

Record the part on these two pages at a slow tempo (about 60 beats per minute, or slower, if you wish). FOLLOW THE CLICK PULSE. Use both hands, if you need to, to play all the notes comfortably. Play as accurately as possible, but if you play a wrong note, don't worry; on the following pages are instructions for correcting minor mistakes. When you're done recording this part to your satisfaction, turn the page for instructions on transforming this one part into a three-part canon.

## Theme from "Ordinary People"
(Pachelbel Canon in D)

Fast Strings

Arranged by Marvin Hamlisc

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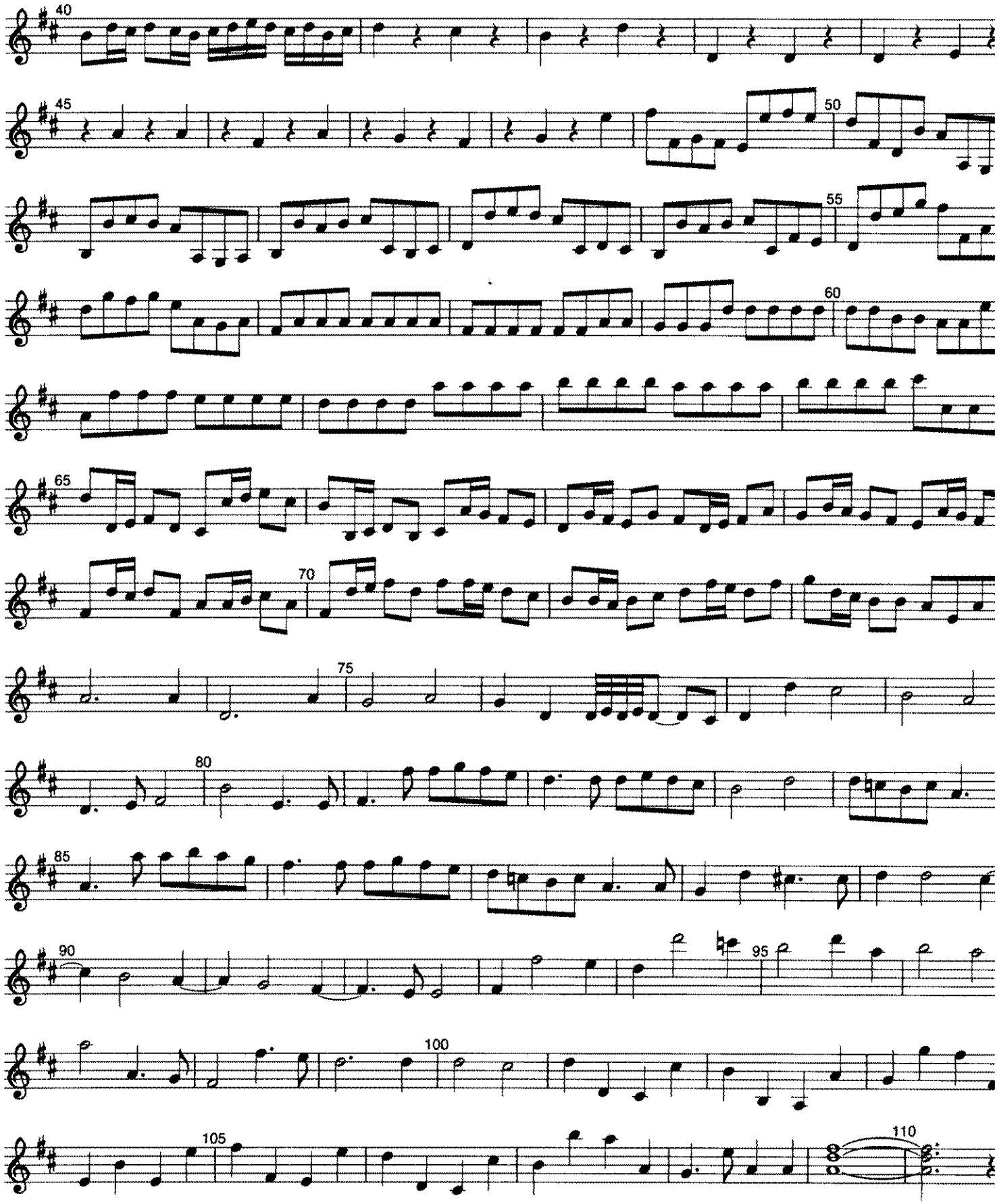
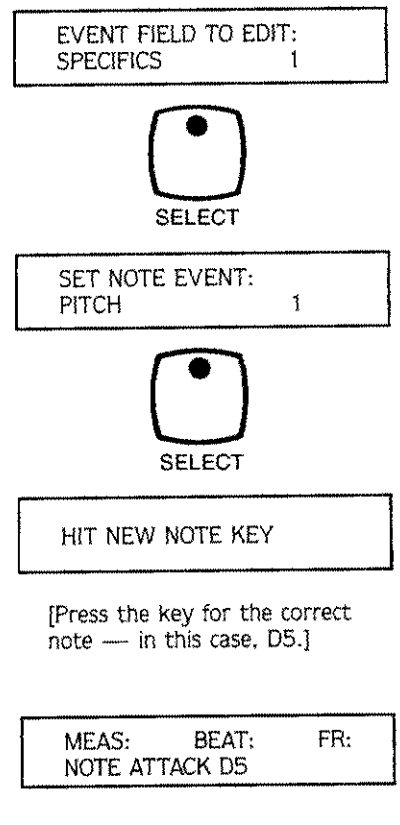

40
45
50
55
60
65
70
75
80
85
90
95
100
105
110

If you want to change something:

Press PLAY to listen to the sequence. Follow along in the music on the previous two pages, circling in pencil any place where you made a mistake. If you made many, erase the sequence and start over at a slower tempo. If you made only a few, it's relatively easy to correct them. While still in Sequence mode, and before saving the sequence, press EDIT, SEQUENCE. You're now in the Sequence Editor. Pull out the templates that fit over the front panel that came with INTRODUCTION TO THE KURZWEIL 250; they'll be a big help. If you don't have them, turn to the diagram of panel functions, labeled "Sequence Editor Shortcuts," in the KURZWEIL 250 REFERENCE GUIDE, near the beginning of the section on the Sequencer.

Let's say that in measure 2 you played a D♯ instead of a D. Press SET EDIT POINTER, SELECT, then enter the number of the measure — 2, in this case — and press SELECT, SELECT. You now see the first event recorded in measure 2. It will either be a NOTE ATTACK or a NOTE RELEASE. The left and right arrow keys move you backward and forward, respectively, in the sequence of recorded events. You would look for NOTE ATTACK D5 5 (the start of the D♯ in octave 5 of the keyboard); if it didn't appear in the display as soon as you SELECTed measure 2, chances are you'd find it with one press of the left arrow key, meaning you played it slightly ahead of the beat.

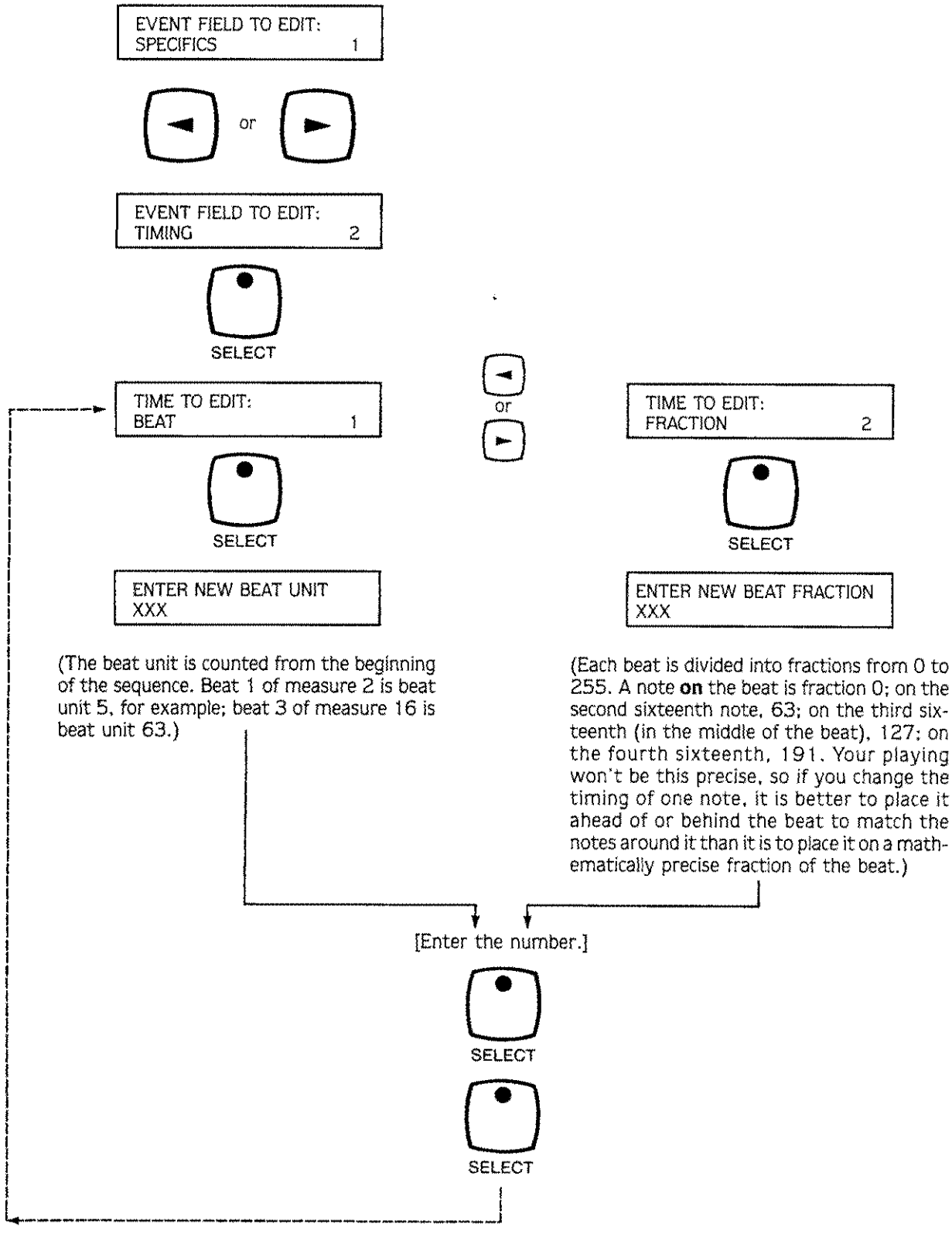
When you have the wrong note in the display, and can hear it over the loudspeakers, press MODIFY CURRENT EVENT. What you see in the display, and the buttons you press in response, go as follows:




Press EXIT OPTION — the up arrow key — three times. The display will then show the **next** event in the recorded sequence. When you change the pitch of a NOTE ATTACK, the pitch of the corresponding NOTE RELEASE is automatically changed for you.

To modify an event in some other part of the sequence, press SET EDIT POINTER, enter the number of the measure, then press SELECT twice. Use the left and right arrow keys to locate the specific event, then change it as outlined above.

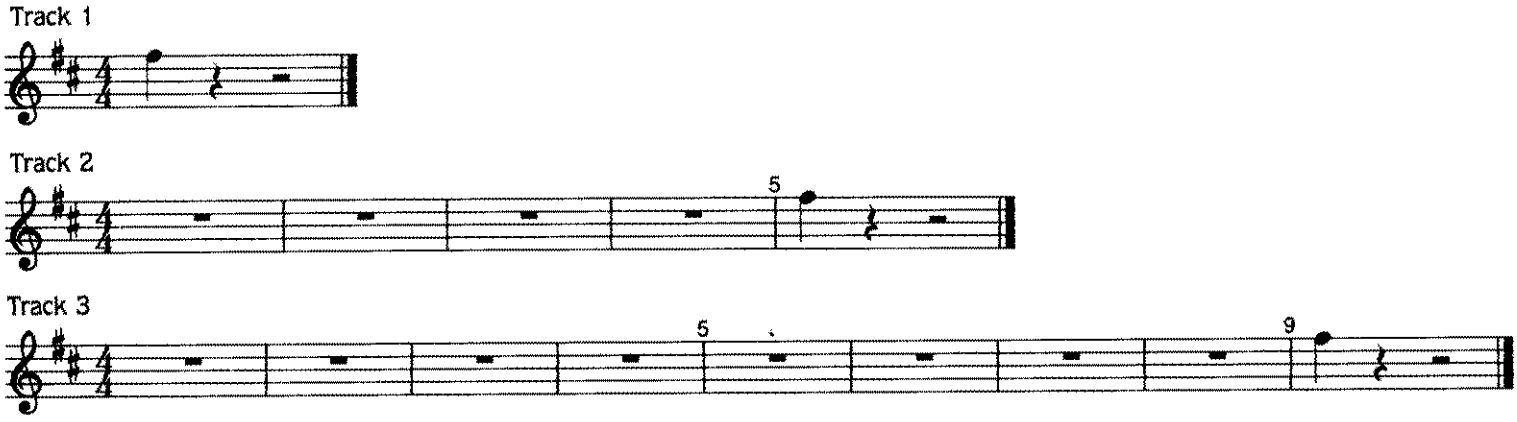
If you played the right note, but in the wrong rhythm, you can also change that. When you have the event in the display, write down the numbers shown in the top line — MEAS (the measure number), BEAT, and FR (the fraction of the beat). Then press MODIFY CURRENT EVENT and follow the flow chart below:




Pressing EXIT OPTION — the up arrow key — puts the next event in the display.

You can modify both the pitch and the timing of a single event, if you wish, by following the procedures outlined here. (After editing the pitch, press the up arrow twice and the right arrow once to begin editing the timing.) You can also use ERASE EVENT to remove the displayed event from the sequence, or INSERT EVENT to add an event before the one shown in the display (more about this later).

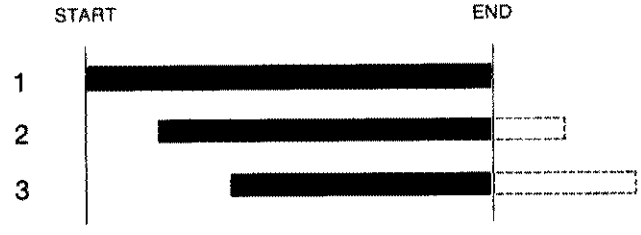
Once you've cleaned up the preliminary one-track sequence, save it. MAKE A NOTE OF THE NUMBER; it will be important later. Give it a recognizable name. Now press EXIT SEQUENCE EDITOR (PLAY), remove the templates and set them aside for the moment, and record the following sequence at a tempo of 70 beats per minute.




When you're done recording, press EDIT, SEQUENCE, and put the templates back on the panel.

The track that is in the edit buffer right now is track 3, the one you last recorded. You'll edit all three tracks, one by one, in reverse order (3, 2, 1). Before you do, though, a bit of explanation is in order about why you're doing all this.

THEME FROM "ORDINARY PEOPLE" is a **canon,** which means that different instruments play the same melody, but starting at different times. A picture of such a canon might look like this:




The melody was what you recorded in the first sequence, on pages 42-43. Rather than recording it three times, though, you can **copy** it at three different positions into another sequence — the simple three-track sequence above (the three F♯'s you played will be starting points for the melody). The endings of tracks 3 and 2 will have to be cut short, as the illustration shows.

To copy the melody into the three tracks, follow the directions on page 47, beginning with the first column ("TRACK 3") and working your way to the bottom of the page, then returning to the top and following the second column ("TRACK 2"), and then the last column ("TRACK 1"). Instructions for completing the sequence are found on page 48.

## TRACK 3

SET EDIT POINTER to measure 9.

Locate NOTE ATTACK FS5.

MODIFY the TIMING to BEAT UNIT 33, FRACTION 0.

## TRACK 2

SET EDIT POINTER to measure 5.

Locate NOTE ATTACK FS5.

MODIFY the TIMING to BEAT UNIT 17, FRACTION 0.

## TRACK 1

SET EDIT POINTER to measure 1.

Locate NOTE ATTACK FS5.

MODIFY the TIMING to BEAT UNIT 1, FRACTION 0.

Press EXIT OPTION, then the left arrow key to return you to NOTE ATTACK FS5 (you may want to move the VOLUME slider down, as the sustaining note can become annoying after a while).

Press COPY SECTION TO TRACK, SELECT, YES. Enter the number of the sequence you recorded on pages 42-43. Press SELECT, SELECT. See "TRACK TO COPY FROM: 1" in the display; press SELECT. See "START MEASURE TO COPY: 1"; press SELECT. See "MEASURE TO STOP AT:"

Enter 102, press SELECT, SELECT.

See "COPY COMPLETE" in the display.

Enter 106, press SELECT, SELECT.

See "COPY COMPLETE" in the display.

Enter 112, press SELECT, SELECT.

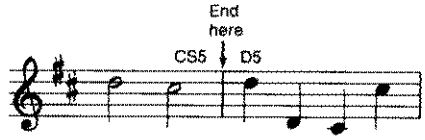
See "COPY COMPLETE" in the display.

In order to cut tracks 3 and 2 short, two events must occur at the proper points: a NOTE RELEASE and a TRACK END.

If you copied the sequence into track 1 correctly, it should already end with the necessary NOTE RELEASEs and TRACK END. Continue with the instructions on page 48.

SET EDIT POINTER to measure 108.

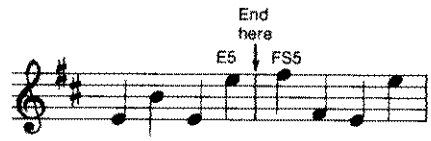
Measures 108-109 for track 3 are:




Use the right arrow key to locate the NOTE ATTACK D5 after the CS5. Write down the fraction of the beat on which it occurs. Press INSERT EVENT, then the left arrow key, then SELECT. This selects the TRACK END event. Edit the TIMING (FRACTION) to assign the same beat fraction that you wrote down for NOTE ATTACK D5; be sure to press SELECT twice. Then press EXIT OPTION (up arrow) twice, then the left arrow twice, to display the TRACK END you just inserted. In addition, if the keys "overlapped" when you recorded the sequence (that is, if you didn't release the C♯ until after you pressed the D), the NOTE RELEASE CS5 will be missing. Insert it before the TRACK END by pressing INSERT EVENT, the **right** arrow once, SELECT, and then editing the SPECIFICS (PITCH), then the TIMING (FRACTION), as previously discussed. Again, enter the same fraction as the TRACK END. When you are done, and back at the "TIME TO EDIT: BEAT 1" display, press EXIT OPTION (up arrow) twice, then LOAD TRACK TO EDIT, SELECT, enter number 2 (you're loading track 2 to edit next), SELECT, SELECT, and continue with the instructions for TRACK 2 at the top of the next column.

SET EDIT POINTER to measure 108.

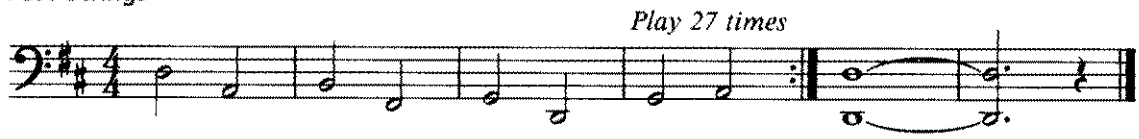
Measures 108-109 for track 2 are:




Locate NOTE ATTACK FS5; INSERT A TRACK END and, if necessary, a NOTE RELEASE E5, as described for track 3. Then load track 1 to edit and continue with the instructions for TRACK 1 at the top of the next column.

Press EXIT SEQUENCE EDITOR (PLAY) three times, remove the templates from the front panel, and record the following bass line as a new track. You may find that the canon starts on beat 2 instead of beat 1, but this poses no difficulty as long as you start the bass line on beat 2 as well.

Fast Strings




You may wish to explore the KURZWEIL 250 REFERENCE GUIDE for instructions on recording the bass line as a loop that repeats for the required number of times and then ends. But if you decide to play it through all 27 times, and you lose count while playing, keep going, while listening to the three-part canon; you should be able to hear the end when it arrives.

Save this sequence when you're done. You can then safely erase the original one-track melody sequence.

# CONCLUSION

If you've gone through all the material in this book, you've taken in a lot of useful musical information. But this is just the beginning, not the end. Learning to recreate the styles of different instrumental sounds is an ongoing process. It involves applying what you've learned from this book in the music you play. It involves listening to instrumentalists perform so you can learn more about how they play. And, to be honest, it involves some practice, as does the acquisition of any worthwhile skill.

There are "easy play" instruments that offer more impressive immediate results than does the K250. But it is precisely the greater involvement and creativity that the K250 requires that make it a more satisfying musical outlet. Getting the most out of playing the K250 is challenging, but it is also rewarding. On the investment of a little time and effort, it pays back big musical dividends.