INTRODUCTION TO THE

KURZWEIL™

Ensemble Grande
MARK II

OWNER'S MANUAL

KURZWEIL MUSIC SYSTEMS
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INTRODUCTION TO THE

KURZWEIL™

Ensemble Grande MARK II

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KMS P/N 91006602

INTRODUCTION

Welcome to the exciting world of the Kurzweil Ensemble Grande MARK II!

Since you're reading this, you probably have already purchased an Ensemble Grande MARK II and therefore are somewhat familiar with it. You have heard the stunning authenticity of the instrumental sounds it produces. You have felt the 88 keys, with their weighted, piano-like action. You have seen the sleek beauty of the cabinet and the invitingly simply front panel that offers you full control of the instrument.

But there might be a few things you don't know about the Ensemble Grande MARK II yet. That's where this book comes in.

The book is divided into two main parts. First is ABOUT THE ENSEMBLE GRANDE MARK II, which explains the features of the instrument and how they operate. Second is PLAYING THE ENSEMBLE GRANDE MARK II, in which you are introduced to the techniques that provide the final step of realism to your playing.

SETTING UP

The Kurzweil Ensemble Grande MARK II is a magnificent instrument that you undoubtedly are proud to own; it's only natural that you want to obtain the greatest possible satisfaction from it. With that in mind, please observe the guidelines set forth below:

- **POWER** — The Ensemble Grande MARK II requires 110V, 60 Hz AC electrical current. It draws 250 Watts of power.

- **SOUND** — The 80-Watt "Spatial Perspective" sound system (120 Watts peak power) is designed to deliver all the fidelity and realism of the sounds in the Ensemble Grande MARK II. But that power and sound need "breathing space" to be heard to the fullest. For best results, place the instrument about 6 inches from a wall.

FCC VERIFICATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designated to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the Ensemble Grande MARK II with respect to the receiver.
- Move the Ensemble Grande MARK II away from the receiver.
- Plug the Ensemble Grande MARK II into a different outlet so that Ensemble Grande MARK II and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions.

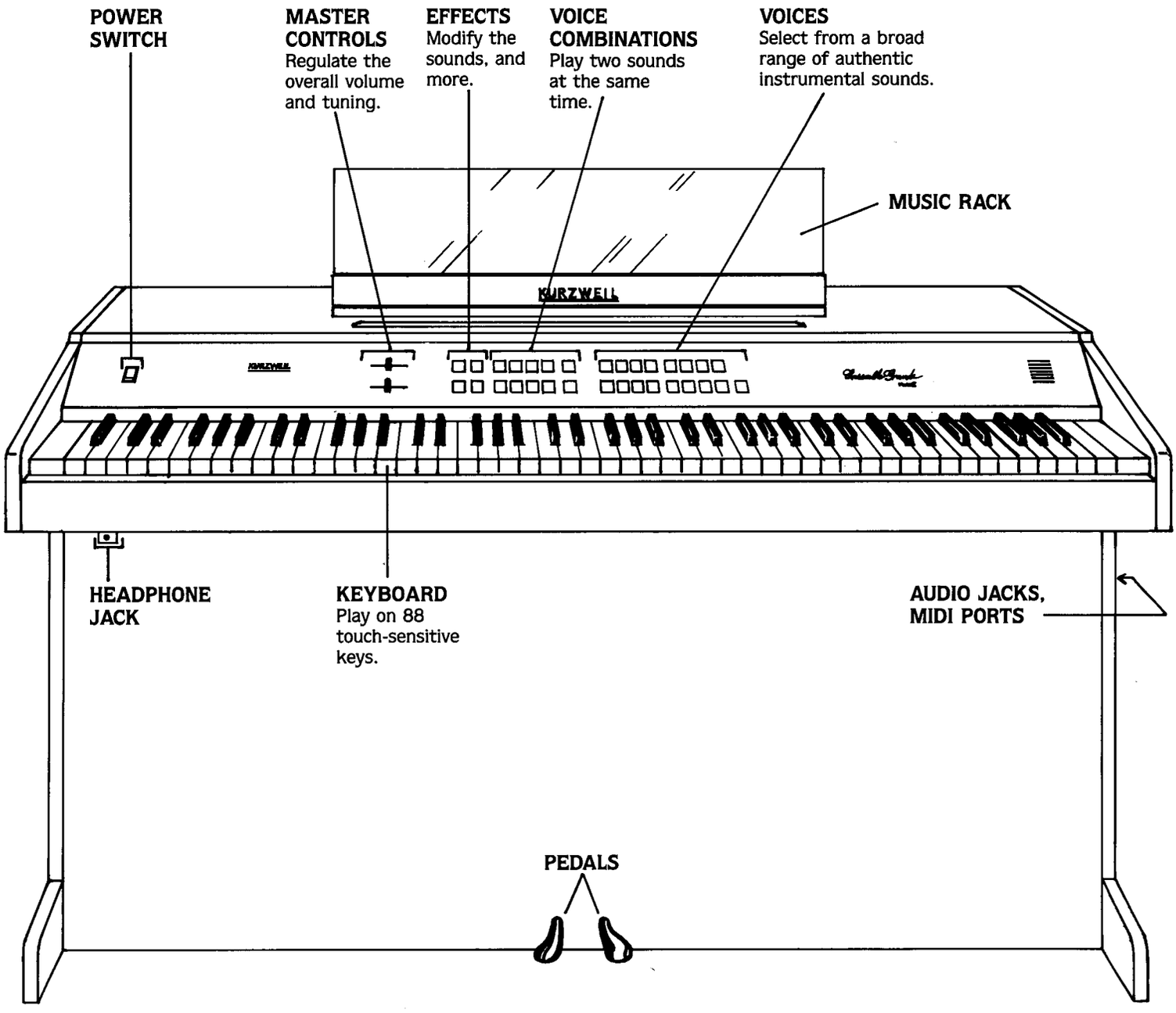
The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems"

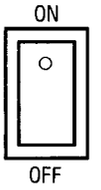
This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

ABOUT THE ENSEMBLE GRANDE MARK II

THE KURZWEIL ENSEMBLE GRANDE MARK II



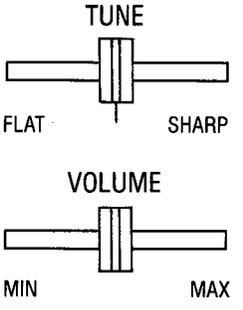
POWER



The POWER switch, located at the left end of the control panel, turns the Ensemble Grande MARK II on and off. To avoid producing a loud noise when the instrument is turned on, set the MASTER VOLUME low before turning the POWER switch on. When the instrument is on, several LEDs (light-emitting diodes) on the panel illuminate. If you press the POWER switch and nothing happens, check the following:

- Make sure the instrument is plugged in.
- Check the wall outlet to see whether it is controlled by a light switch or whether a household circuit breaker or fuse might need resetting or replacing. Check this by plugging a lamp or a radio into the outlet to test it.

MASTER CONTROLS



As the name implies, the MASTER CONTROLS affect the entire instrument. The TUNE control allows you to raise or lower the pitch of the Ensemble Grande MARK II slightly. This is valuable in playing along with recordings, or with other instruments that cannot be tuned easily. Moving the slider to the right (SHARP) raises the pitch; moving it to the left (FLAT) lowers the pitch. In its center position, the slider tunes the instrument to normal "A-440" pitch. By the way, one of the many advantages of the Ensemble Grande MARK II over an acoustic piano is that it never goes out of tune!

MASTER VOLUME controls the loudness of the Ensemble Grande MARK II. To the right (MAX) is louder; to the left (MIN) is softer. If you turn the Ensemble Grande MARK II on but hear no sound when you play, MASTER VOLUME is the first thing to check; at MIN, the instrument is silent. (If this is not the problem, make sure that there are no headphones plugged in; they silence the speakers.)

KEYBOARD AND PEDALS

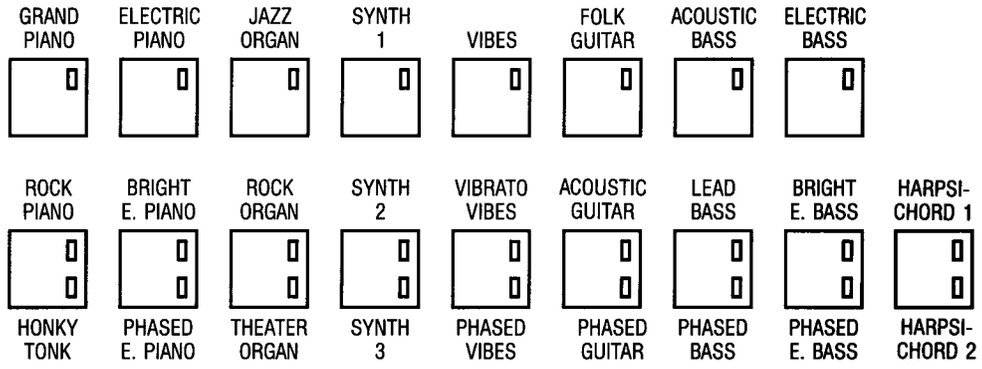
The keyboard of the Ensemble Grande MARK II consists of 88 weighted wooden keys, with an action designed to simulate the feel of an acoustic piano. Just as with an acoustic piano, the harder you press the keys of the Ensemble Grande MARK II (more precisely, the faster you press them), the louder and brighter the resulting sound is. In technical terms, this is called "velocity sensitivity." It makes the Ensemble Grande MARK II a truly expressive instrument.

To complement the piano-like look and feel of the instrument, when you first turn the Ensemble Grande MARK II on, the Grand Piano voice is automatically active and ready to play.

In addition to the expressiveness offered by the keyboard, there are two pedals that provide you with further control over the sounds of the Ensemble Grande MARK II. The right pedal is a sustain pedal, just like that on an acoustic piano. Pressing it down causes notes to sustain even when you lift your fingers from the keys. The use of this pedal will be covered in greater detail in the "Playing Guide" section of this book, in the discussion of playing the Grand Piano voice.

The left pedal operates as a soft pedal. Again, this functions exactly like the soft pedal on an acoustic piano: pressing it makes the sounds of the notes you play softer and more muted than when it is not pressed.

VOICES



The Ensemble Grande MARK II is specifically designed to create authentic simulations of musical instrument sounds. This is accomplished through an exclusive Kurzweil process called "Contoured Sound Modeling." Briefly, the actual sounds of instruments are distilled into "sound models," which are stored digitally within the memory of the Ensemble Grande MARK II and reproduced by an advanced-design digital tone generator. These sound models represent not only the important characteristics of the various sounds and how they change over time, but also how the tone quality of a sound varies as the player plays from bass to treble and from soft to loud. Contoured Sound Modeling satisfies both the economic necessity of using a minimum amount of computer memory and the musical necessity of providing expressive, realistic sounds.

The buttons that select the instrumental sounds for the Ensemble Grande MARK II are found in the VOICES section. There is a total of 26 instrumental voices.

Two rows of buttons make selection easy, and also allow you to understand the relationship between voices at a glance. The top row of buttons consists of the basic voices. Press a button to activate a voice; the LED in the button illuminates to inform you that that voice is active and can now be played from the keyboard.

The bottom row of buttons encompasses variations of the basic sounds found in the top row. Each button in the bottom row provides two variants of the sound activated by the button directly above it. For example, Rock Piano and Honky Tonk, which are both piano sounds, are activated by the button below Grand Piano. Pressing a button in the the bottom row once causes the **upper** LED on the button to illuminate, indicating that the voice whose name is printed **above** the button is active. Pressing the button a second time causes the **lower** LED to illuminate, indicating that the voice whose name is printed **beneath** the button is active. Pressing the button a third time restores the voice whose name is printed above the button, and so on.

Pressing a button in the VOICES section cancels any voice previously activated.

The voices are:

GRAND PIANO — the deep resonant bass, rich midrange, and bright high notes of a nine-foot concert grand. The Kurzweil reputation for accurate reproduction of piano sound brings you astounding realism.

ROCK PIANO — bright, crisp attacks that are great for giving a sharp edge to rock and pop music.

HONKY TONK — tuned to enhance turn-of-the-century ragtime and stride piano music.

ELECTRIC PIANO — an indispensable contemporary sound, modeled after the electric pianos found in countless popular recordings.

BRIGHT ELECTRIC PIANO — voiced to produce an electric piano sound that can take the lead in an ensemble.

PHASED ELECTRIC PIANO — the familiar "rolling," or "phase-shifted," sound, made popular by rotating-speaker tone cabinets.

JAZZ ORGAN — a straight-ahead electric organ voice with a bright attack; a favorite of jazz organists for decades.

ROCK ORGAN — enhanced "key click" sound and a fast rotating-speaker effect recall this classic rock 'n' roll sound.

THEATER ORGAN — deep vibrato combined with a smooth attack for that big theater sound.

SYNTH 1 — one of three favorite analog synthesizer sounds from the music of the '70s and '80s. It is reminiscent of the sound of a brass instrument.

SYNTH 2 — the familiar "wow" synthesizer sound.

SYNTH 3 — a layered sound combining a flute-like core with shimmering percussive overtones.

VIBES — bright, pure attacks for playing fast jazz licks, slow, bell-like tones, or anything in between.

VIBRATO VIBES — the addition of vibrato gives this voice a warm, sustaining quality.

PHASED VIBES — the rotating-speaker effect adds an important facet to the classic vibes sound.

FOLK GUITAR — a mellow nylon-string guitar, well suited to both folk and classical music.

ACOUSTIC GUITAR — a bright steel-string acoustic guitar voice that is ideal for duplicating finger-picking styles.

PHASED GUITAR — the rotating-speaker effect adds a contemporary element to the classic acoustic guitar sound.

ACOUSTIC BASS — authentic acoustic sound for bass lines as well as for solo playing.

LEAD BASS — a bright acoustic bass sound that is reminiscent of the bass guitars used by Mexican street musicians.

PHASED BASS — the rotating-speaker effect adds richness and excitement to the traditional acoustic bass voice.

ELECTRIC BASS — a bright, resonant, contemporary voice. It produces the popular "slap bass" sound when the keys are depressed hard, and the more traditional plucked sound when they are depressed more easily.

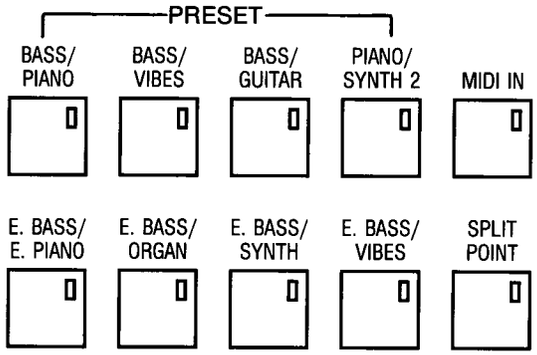
BRIGHT ELECTRIC BASS — enhanced high harmonics give this voice an ability to "cut through" that is ideal for solo playing.

PHASED ELECTRIC BASS — a popular contemporary bass sound.

HARPSICHORD 1 — the crisp, elegant sound of this venerable keyboard instrument.

HARPSICHORD 2 — doubled harpsichord for a fuller, more majestic sound.

VOICE COMBINATIONS



A voice combination, also known as a split keyboard, allows you to play two different voices from the keyboard at the same time; each voice is assigned to its own area of the keyboard. There are two categories of voice combinations. First, there are eight preset split keyboards, which are always available. Second, you can make a temporary split keyboard at any time, which is active until you call up another voice or combination.

Preset Combinations

To activate a preset voice combination, press the appropriate button in the PRESET area of the VOICE COMBINATIONS section. The LED illuminates and the combination can be played from the keyboard.

The preset combinations mostly are drawn from the top row of the VOICES section; the exceptions are PIANO/SYNTH 2 (which combines ELECTRIC PIANO and SYNTH 2) and E. BASS/VIBES (which combines ELECTRIC BASS and PHASED VIBES).

The voice that is listed first in each combination is playable from the left part of the keyboard; the voice that is listed second is playable from the right part of the keyboard. For example, in the BASS/PIANO combination, the ACOUSTIC BASS occupies the left part of the keyboard, and the GRAND PIANO occupies the right part of the keyboard.

The split point — the point at which the right-hand voice begins — in all of the preset combinations is D-flat below middle C. Thus, in the BASS/PIANO combination, the ACOUSTIC BASS plays from the lowest key of the keyboard through C an octave below middle C, and the GRAND PIANO plays from D-flat below middle C through the highest key of the keyboard.

Temporary Combinations

You can make your own temporary voice combinations, using any two voices you wish, by following these steps:

1. Press the button in the VOICES section for the voice you want to be in the bottom half of the split keyboard.

2. Press the SPLIT POINT button; the LED will blink, indicating that another button must be pressed.

3. If you want a split point other than D-flat below middle C, press the key to signify the split point you want. Remember: The split point you select will be the first key of the upper voice, not the last key of the lower voice.

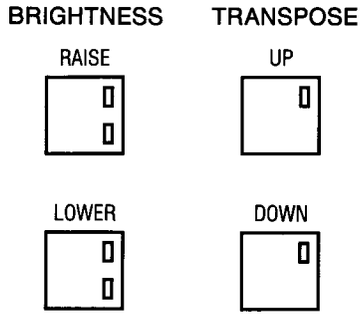
   If you make a mistake or change your mind here, you can select a new split point before going on. The last key you press will be the split point.

4. Press the button in the VOICES section for the voice you want to be in the top half of the split keyboard. You can change your mind here, too, and select another voice, as long as the SPLIT POINT LED is still flashing. But as soon as you play a key on the keyboard (specifically, as soon as you press and release a key), the combination is set.

You can now play the temporary combination from the keyboard until you select a new voice or preset combination.

Temporary combinations are erased when the instrument is turned off.

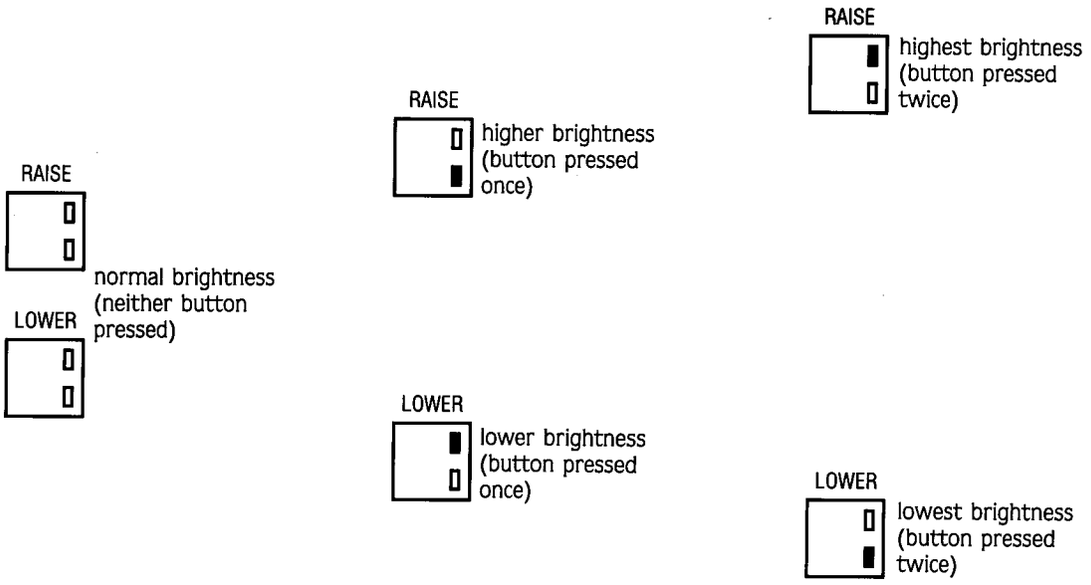
EFFECTS



The EFFECTS section consists of two general functions: BRIGHTNESS and TRANSPOSE.

Brightness

You can raise or lower the brightness of the sound by using these two buttons. The LEDs illuminate to show the level of brightness:



Pressing a button three times turns the LEDs off and restores normal brightness. In all, then, there are five possible levels of brightness. These can be useful in accentuating the mood of a piece of music; for example, a slow ballad might benefit from a lower-than-normal brightness, while an up-tempo number might sound best with a higher-than-normal brightness. The BRIGHTNESS buttons can also be used to "balance" the sound to adjust to the acoustics of the room in which you are playing. For example, in certain acoustics, the bass notes may tend to "boom," overpowering the higher notes; in such a situation, use a higher brightness to emphasize the higher notes. A lower brightness likewise emphasizes the low notes, which you may find necessary or desirable where you are playing.

Transpose

These buttons allow you to play the keyboard in one key and have the notes sound in another. This is useful when accompanying singing, in which the key of the written music may be too high or too low for the voice, or when playing music written for a transposing instrument, such as the clarinet.

Each time you press the UP button, you raise the pitch of the Ensemble Grande MARK II by a half step. You can raise it as much as an octave above normal pitch. The DOWN button works in the same way, lowering the pitch, a half step at a time, to as much as an octave below normal pitch. The LED in the appropriate button will remain lit as long as the instrument is transposed, and will only go off when there is no transpose. To return to normal pitch, simply transpose the same number of half steps in the opposite direction. For example, if you have transposed up five half steps, you must press the DOWN button five times to return to normal pitch.

OTHER FEATURES

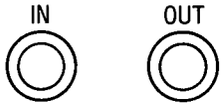
Headphone

HEADPHONE

This 1/4" jack is located on the front of the Ensemble Grande MARK II, beneath the left end of the keyboard. It allows you to plug in a pair of stereo headphones, silencing the speakers and allowing you to play or practice without disturbing — or being disturbed by — others.

Audio

AUDIO

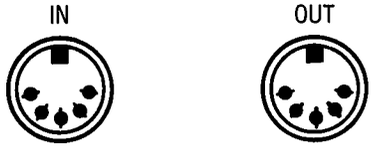


These jacks are found on the back of the Ensemble Grande MARK II. The OUT jack allows you to play the Ensemble Grande MARK II through an external sound system, such as a home stereo , or into a tape recorder or cassette deck. It puts out a line-level signal designed to match the requirements of such use.

The IN jack accepts a line-level signal, such as that from another electronic musical instrument, a home stereo, or a tape deck, and plays it through the internal sound system of the Ensemble Grande MARK II.

MIDI

MIDI



MIDI stands for Musical Instrument Digital Interface. It is an international standard that allows electronic musical instruments to "communicate" with one another. It ensures that your Ensemble Grande MARK II will remain compatible with the instruments of today and tomorrow.

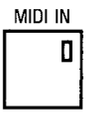
The MIDI jacks, or "ports," as they usually are called, are located next to the AUDIO jacks, on the back of the instrument. A MIDI cable connecting the MIDI OUT port of the Ensemble Grande MARK II and the MIDI IN port of another instrument allows you to play both instruments simultaneously from the keyboard of the Ensemble Grande MARK II. This is called a "master-slave" setup; the Ensemble Grande MARK II is the master in this case, and the other instrument is the slave.

For the technically inclined, the following list shows what the Ensemble Grande MARK II sends out the MIDI OUT port:

- Keyboard note-ons and note-offs.
- Changed in the VOICES section (called "program changes" in MIDI terminology). Each voice button transmits a different program number when pressed.
- The positions of the TUNE slider, BRIGHTNESS buttons, sustain pedal, and soft pedal, as MIDI controllers.

All of these are transmitted on MIDI channel 1.

The MIDI IN port allows you to use the Ensemble Grande MARK II as a "slave." To activate this capability, press the MIDI IN button on the front panel, located above the SPLIT POINT button in the VOICE COMBINATIONS section.



Pressing the MIDI IN button silences the keyboard (the Ensemble Grande MARK II can be played only from an external source in this mode) and allows the instrument to respond to note and normal MIDI controller information over all MIDI channels. Pressing the MIDI IN button again returns control to the keyboard.

The following page shows the complete MIDI implementation chart for the Ensemble Grande MARK II.

ENSEMBLE GRANDE MARK II
MIDI IMPLEMENTATION CHART

Function		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1 x	1 1-16	
Mode	Default Messages Changed	3 xxxx xxxx	3 xxxx xxxx	
Note Number True Voice		9-120 xxxx	9-120 xxxx	Depends on transposition
Velocity	Note on Note off	0 X (80H; V=40H)	0 X	
Aftertouch	Key Channel	X X	X X	
Pitch Bender		X	X	
Control Change	0 10 64 65	0 (0-127) 0 (0-4) 0 (0,127) 0 (0,127)	0 (0-127) 0 (0-4) 0 (0,127) 0 (0,127)	Tuning Slider Brightness Sustain Pedal Soft Pedal
Program Change		0 (0-25)	0 (0-25)	Voice Select Buttons
System Exclusive		0	0	Keyboard Split
System Common		X	X	
System Real Time	Clock Commands	X X	X X	
Aux Messages				
	All Notes Off	X	0	
	Local On/Off	X	X	
	Active Sense	X	X	
	Reset	X	X	

MODE 1: OMNI ON, POLY MODE 2: OMNI ON, MONO O = Yes

MODE 3: OMNI OFF, POLY MODE 4: OMNI OFF, MONO X = No

PLAYING THE ENSEMBLE GRANDE MARK II

PIANO

The piano is the most logical place to begin discussing playing the Ensemble Grande MARK II, for it is the piano that the instrument most resembles.

The keyboard of the Ensemble Grande MARK II has been designed to simulate that of the piano; the GRAND PIANO voice likewise simulates the sound of a piano. Musically, what all of this means is that, when playing piano music on the Ensemble Grande MARK II, you should take advantage of the expressiveness — the variations in loudness and softness — that it offers.

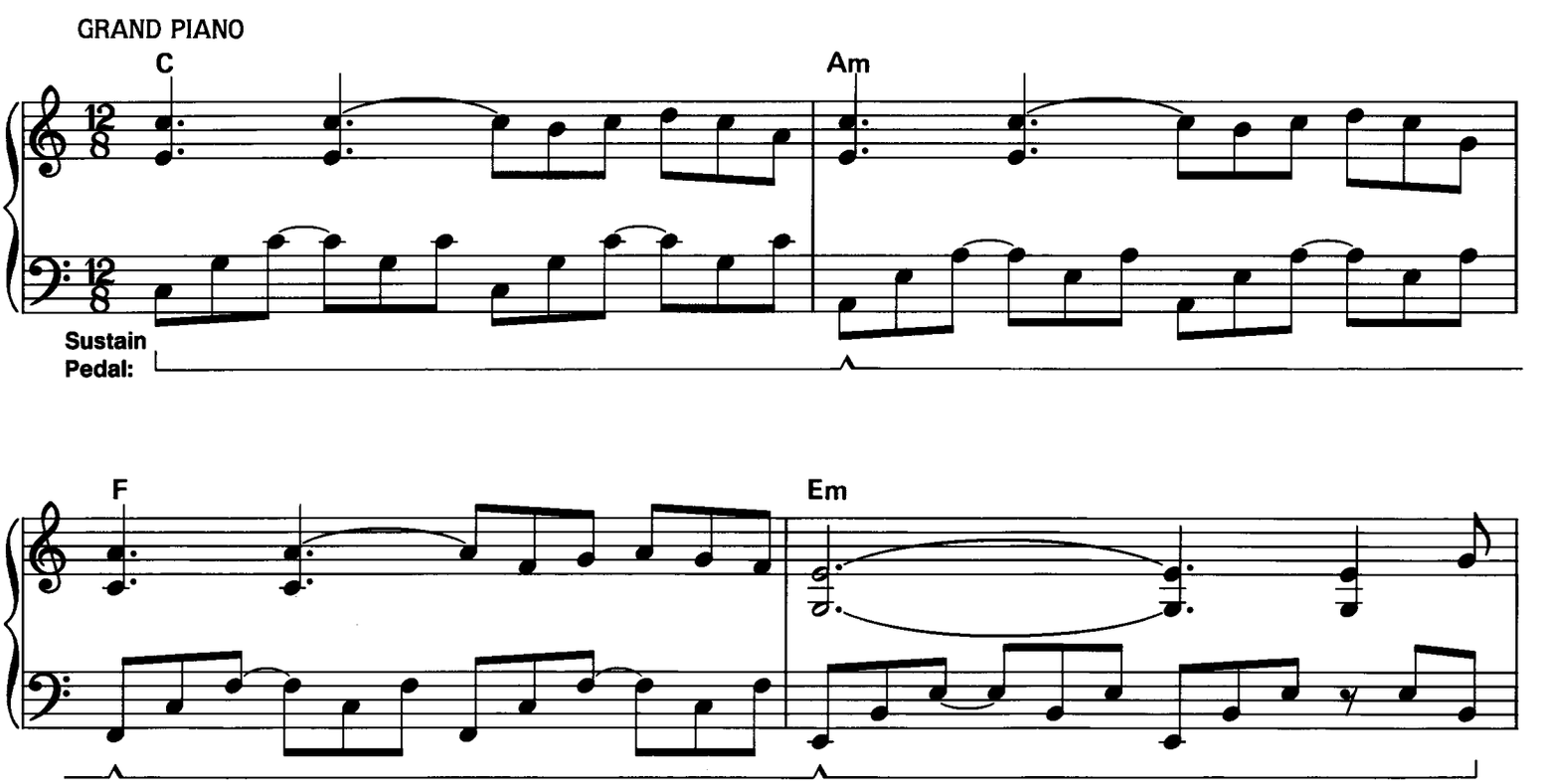
Another important aspect of piano playing is the use of the sustain pedal. A couple of guidelines are in order here:

- Use the pedal sparingly. If used too much, the result is an indistinct wash of sound. And you risk running into note 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.

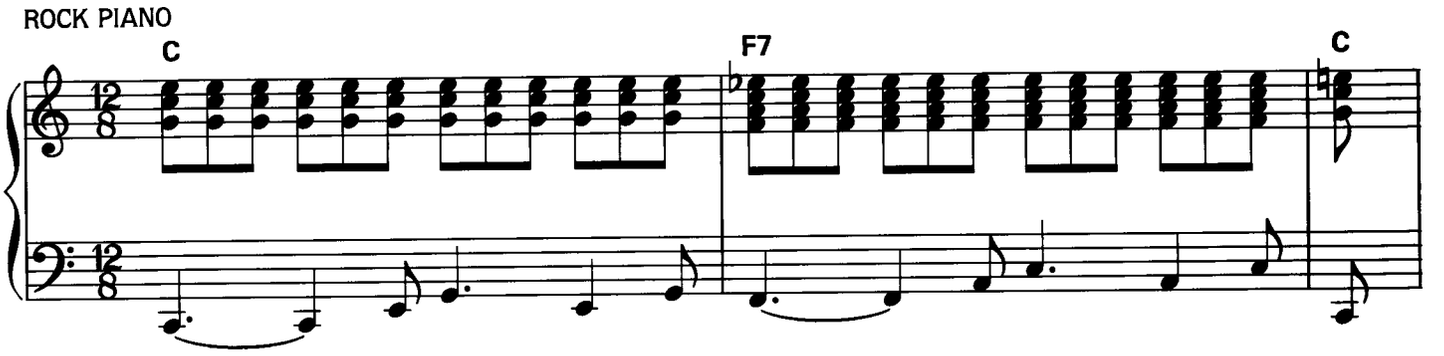
Memory

(From "CATS")

Text by Trevor Nunn after T.S. Eliot
Music by Andrew Lloyd Webber



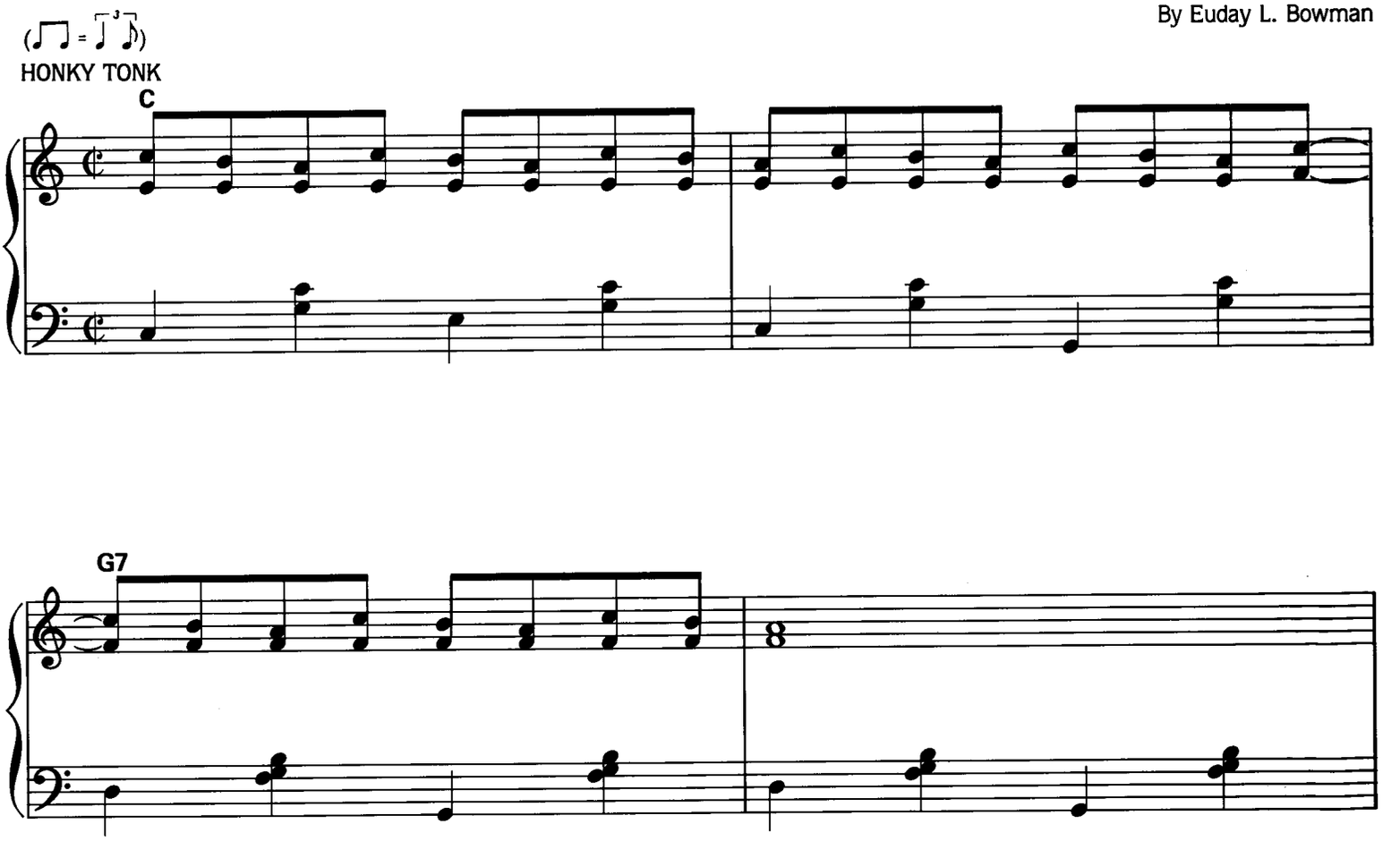
The bright, percussive sound of ROCK PIANO lends itself to rhythmic repetitions of chords.



The HONKY TONK voice, of course, is made for ragtime music.

12th Street Rag

By Euday L. Bowman

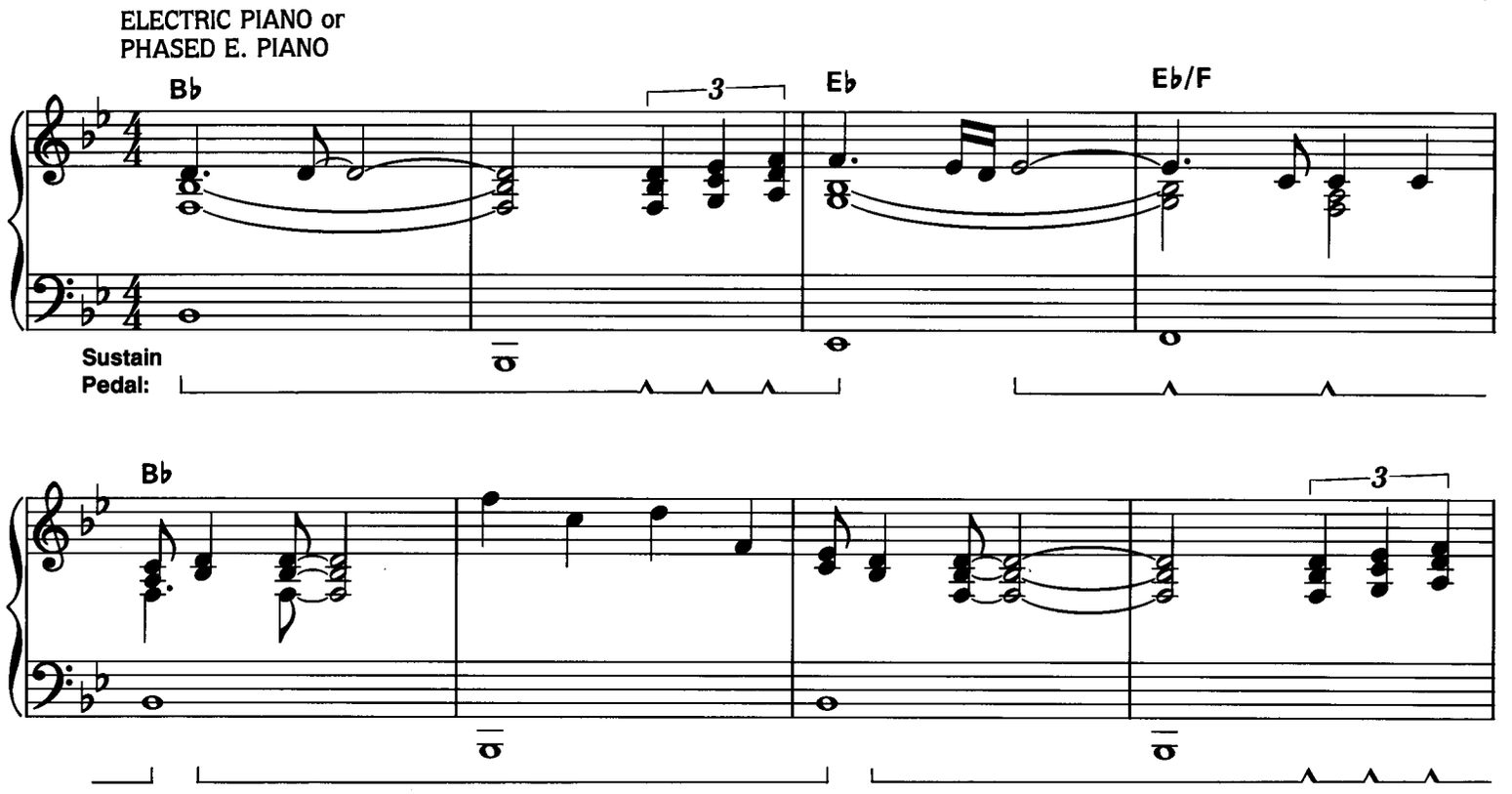


ELECTRIC PIANO

The bell-like quality of the ELECTRIC PIANO calls for a style of playing that emphasizes sustained notes; too much movement would result in a confusing blur.

Endless Love

Words and Music by
Lionel Richie

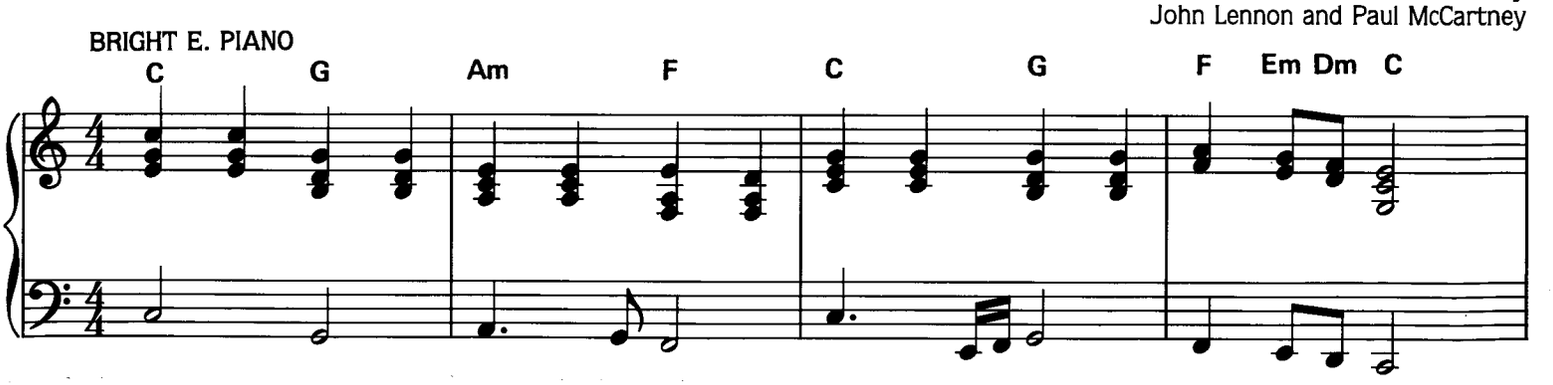


This is especially true for the PHASED ELECTRIC PIANO, which in a real sense provides its own motion to the sound.

BRIGHT ELECTRIC PIANO takes on an incisive, reedy sound when played loudly. This sound is heard on many pop and rock recordings from the 1960s and '70s.

Let It Be

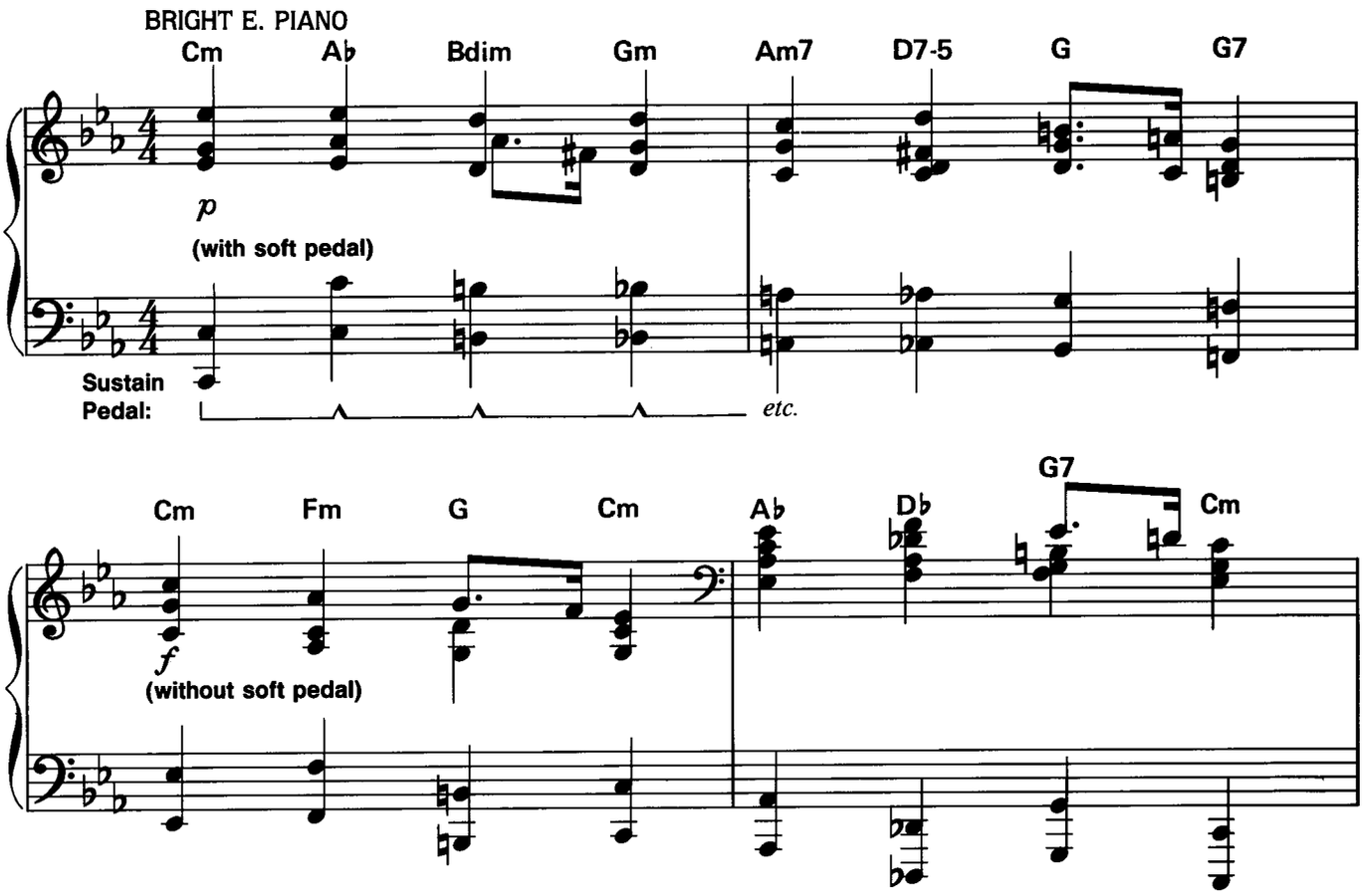
Words and Music by
John Lennon and Paul McCartney



In fact, the BRIGHT ELECTRIC PIANO voice has a "split personality": when played softly, and especially with the soft pedal, it is transparent and delicate; the more robust character takes over at louder dynamics.

Prelude In C Minor

Frederic Chopin

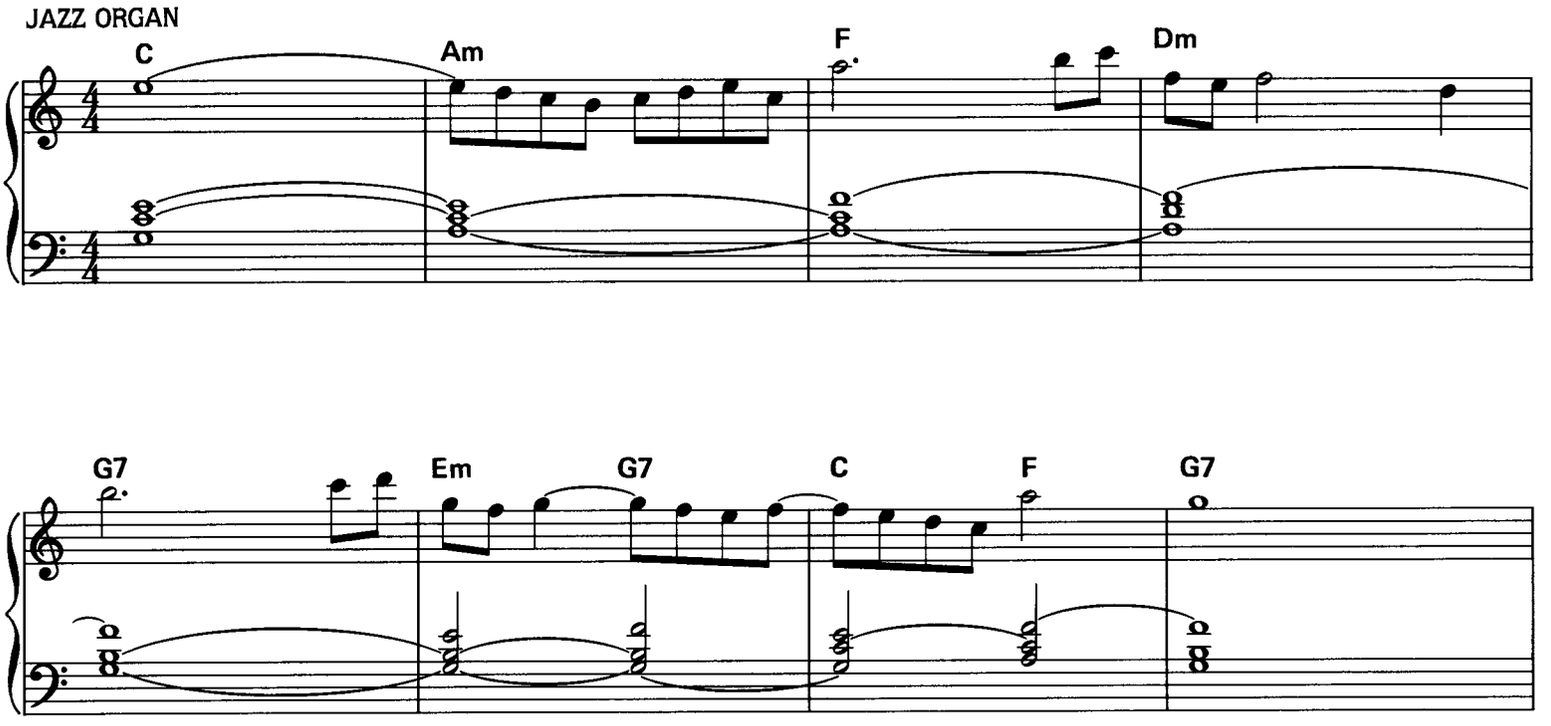


ORGAN

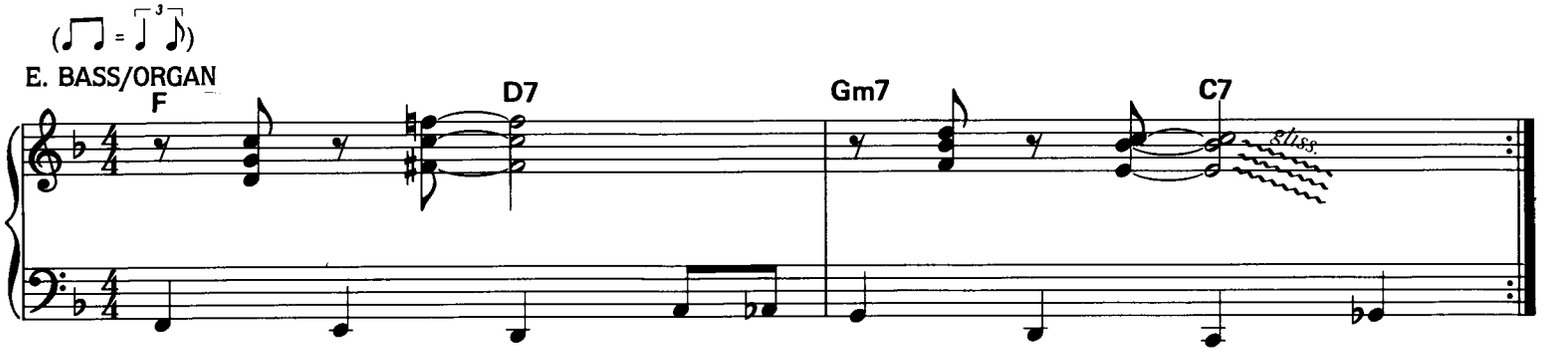
The capability of organ sounds to sustain indefinitely means that when trying to play the Ensemble Grande MARK II like an organ, you can rely on held notes to a greater extent than when playing piano music.

A Whiter Shade Of Pale

Words and Music by
Keith Reid and Gary Brooker



Jazz is popular among many organists, using the "percussive" sound of the JAZZ ORGAN voice 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.



ROCK ORGAN can be used similarly to ROCK PIANO — in rhythmic playing of chords.

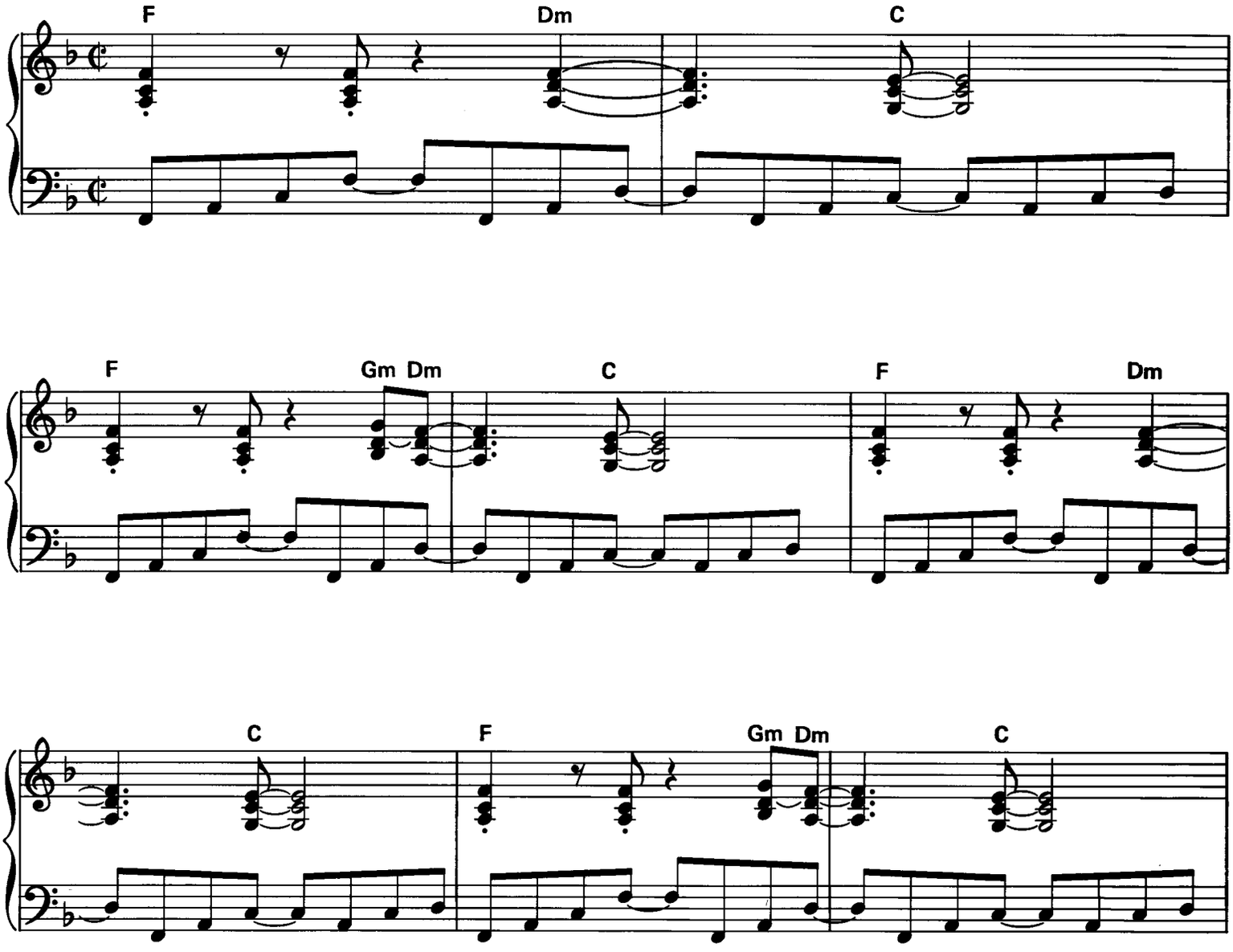
NOTE: To play the following example, set up a temporary voice combination of BRIGHT E. BASS and ROCK ORGAN, with the split point at F♯ below middle C. See page 10 for instructions.

When The Going Gets Tough, The Tough Get Going

Words and Music by Wayne Brathwaite,
Barry J. Eastmond, Robert John "Mutt" Lange
and Billy Ocean

(♫♫ = ♩³♪)

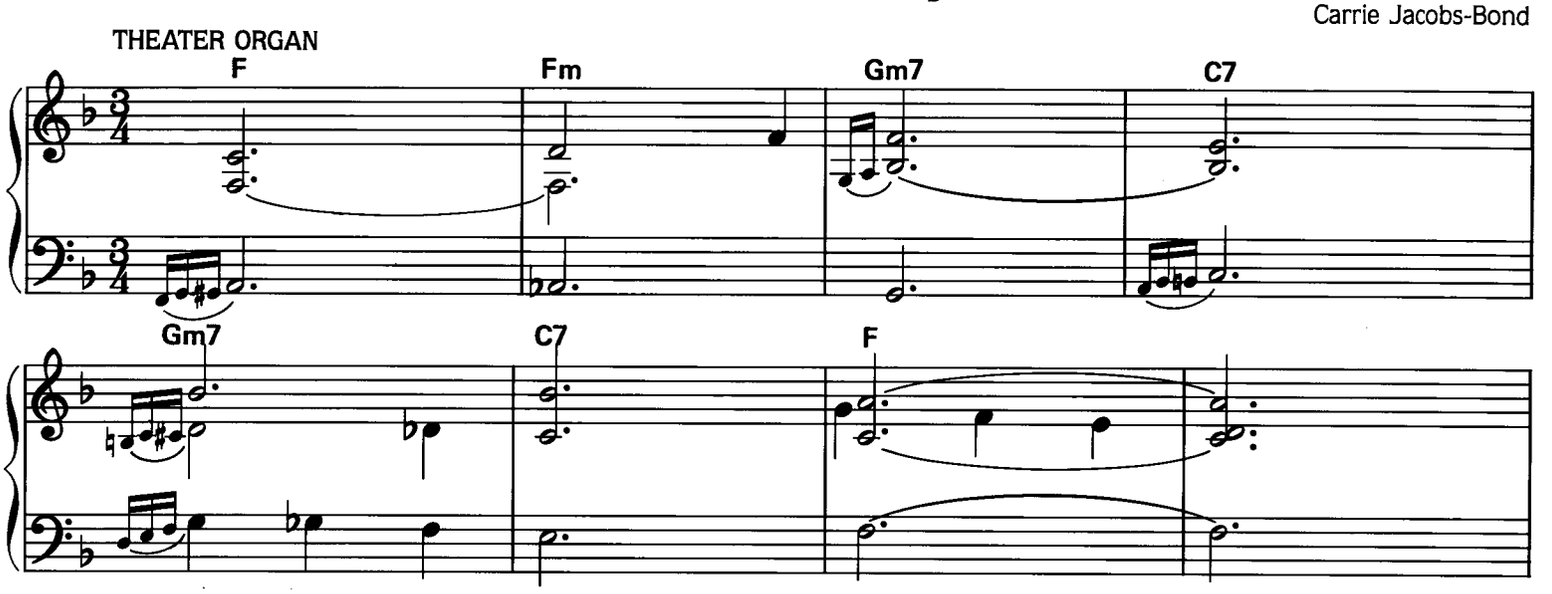
BRIGHT E. BASS/ROCK ORGAN



THEATER ORGAN style frequently revolves around the use of open harmony (widely spaced chords) and numerous grace notes and "slides" between notes to achieve a somewhat sugary sentimentality.

I Love You Truly

Carrie Jacobs-Bond

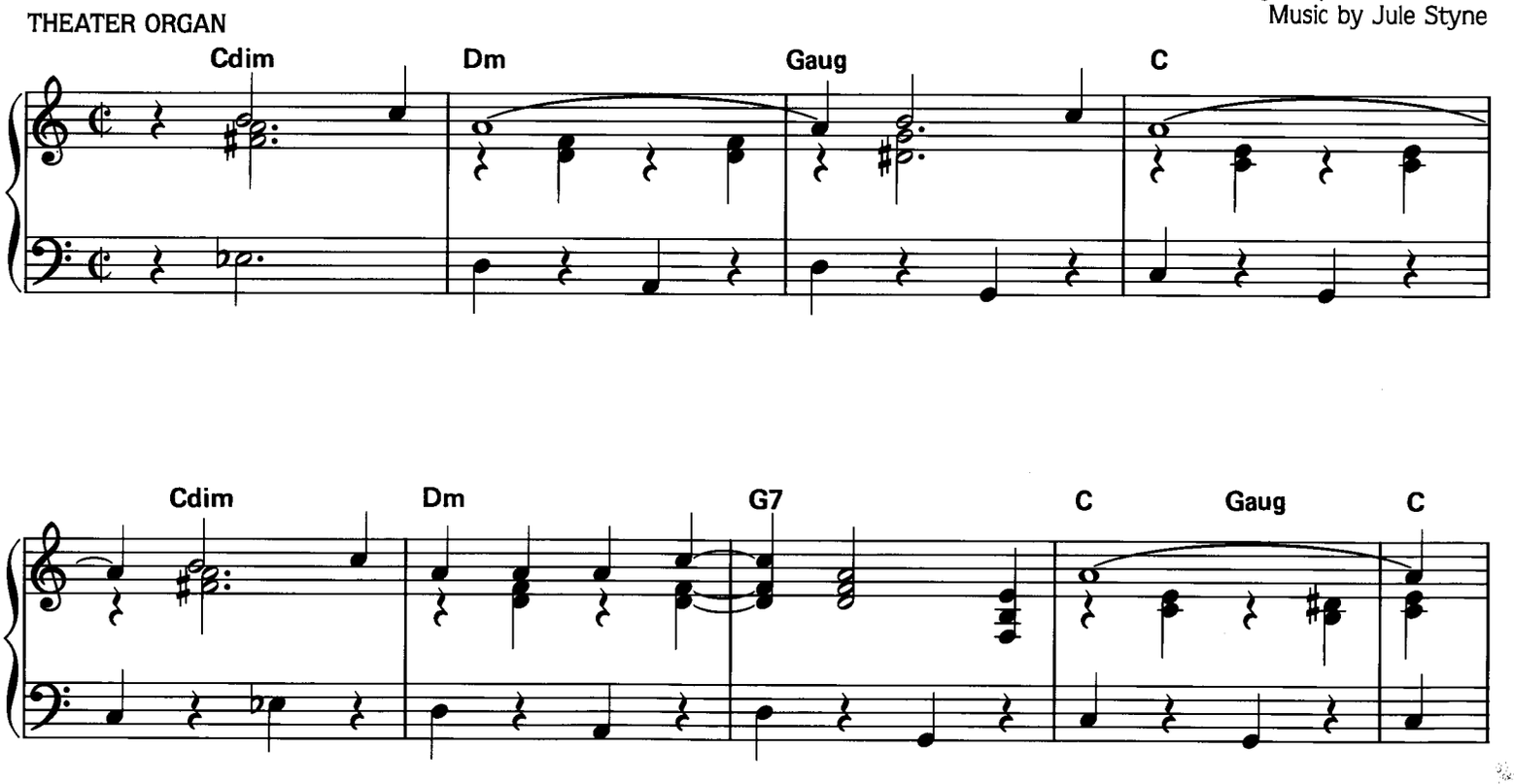


As is the case with most instrumental sounds, however, the THEATER ORGAN is not restricted to a single style. Another facet of theater organ music is flamboyant and exuberant.

Everything's Coming Up Roses

(From "GYPSY")

Words by Stephen Sondheim
Music by Jule Styne

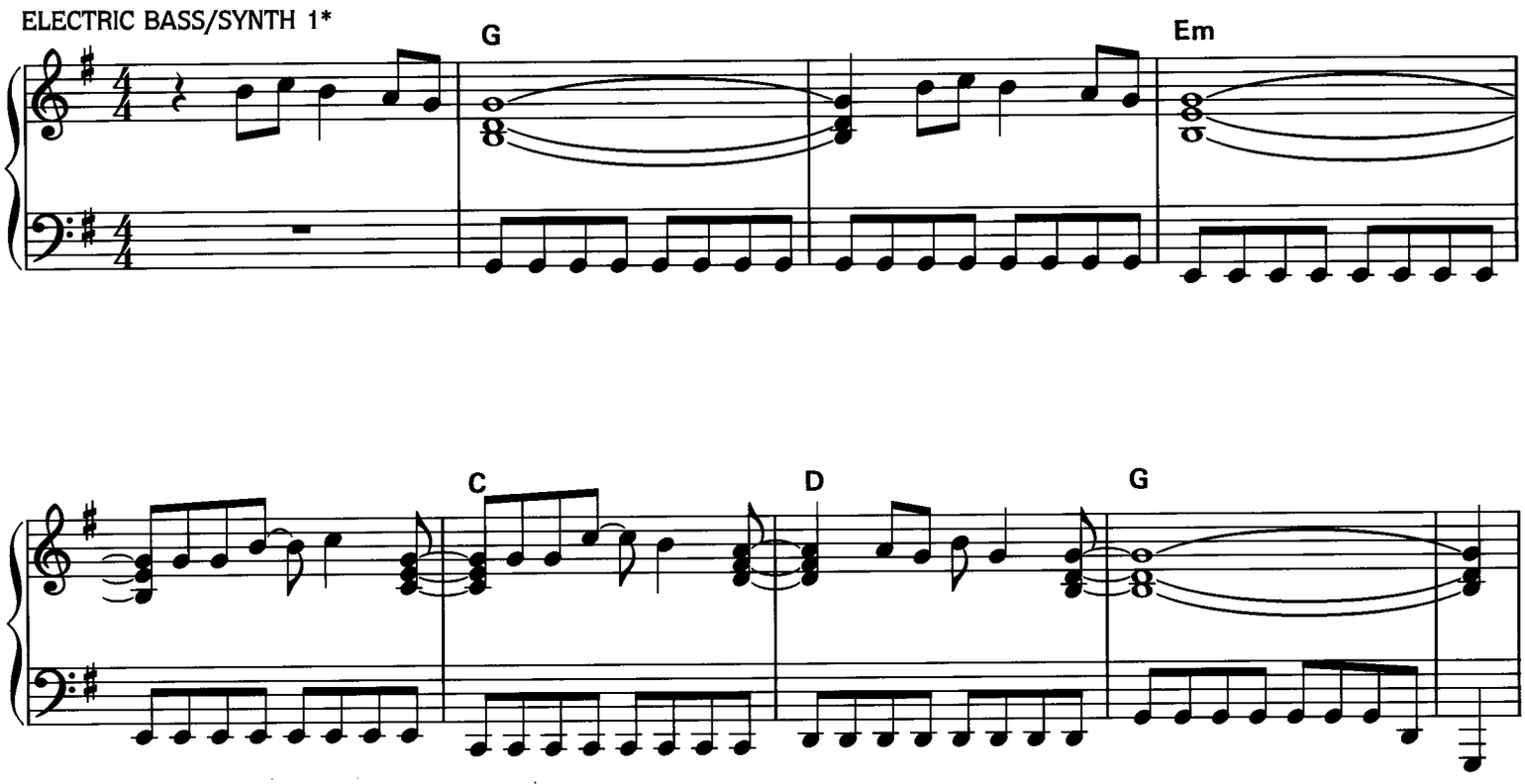


SYNTH

SYNTH 1 is an excellent solo sound, as are the other two SYNTH voices.

Every Breath You Take

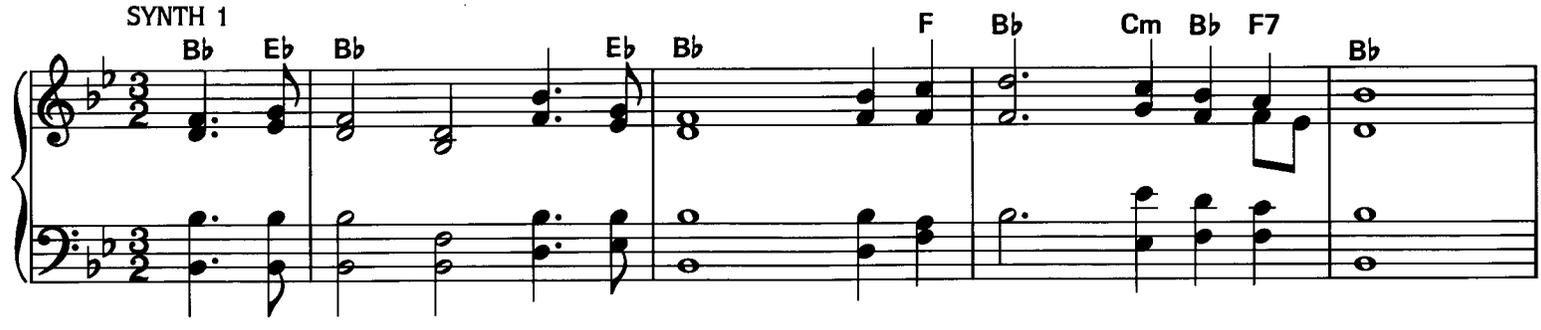
Words and Music by Sting



In addition, the brass-like quality of this voice makes it well-suited to playing full harmonies.

Rock Of Ages

Words by A.M. Toplady
Music by Thomas Hastings



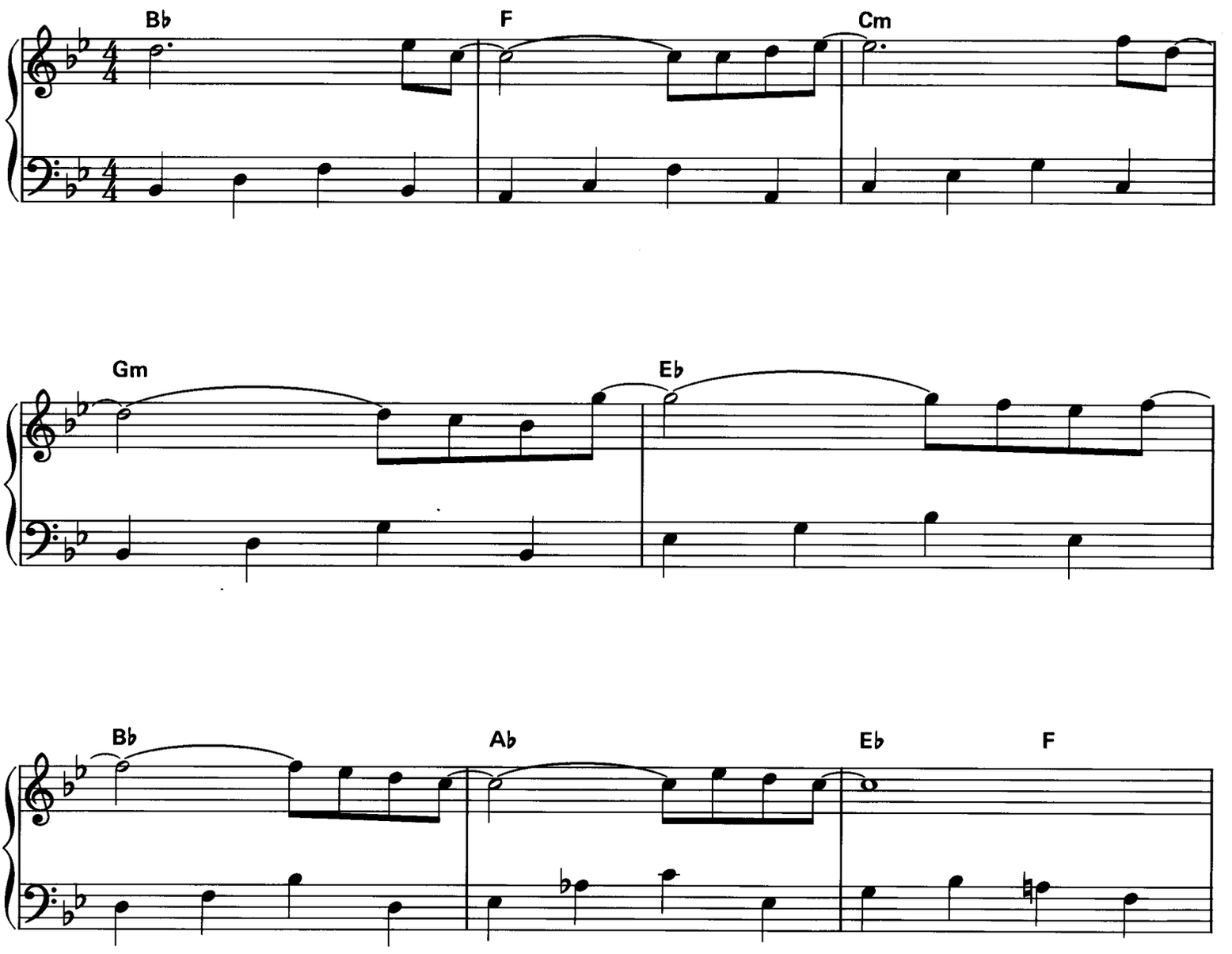
*Temporary voice combination, with split point at A below middle C (see page 10).

SYNTH 2 is a versatile voice; the "wow" sound it possesses is best heard on relatively long notes, but its sharp-edged attack makes it effective for short notes as well.

Flashdance. . . What A Feeling

Lyrics by Keith Forsey and Irene Cara
Music by Giorgio Moroder

GRAND PIANO/SYNTH 2*



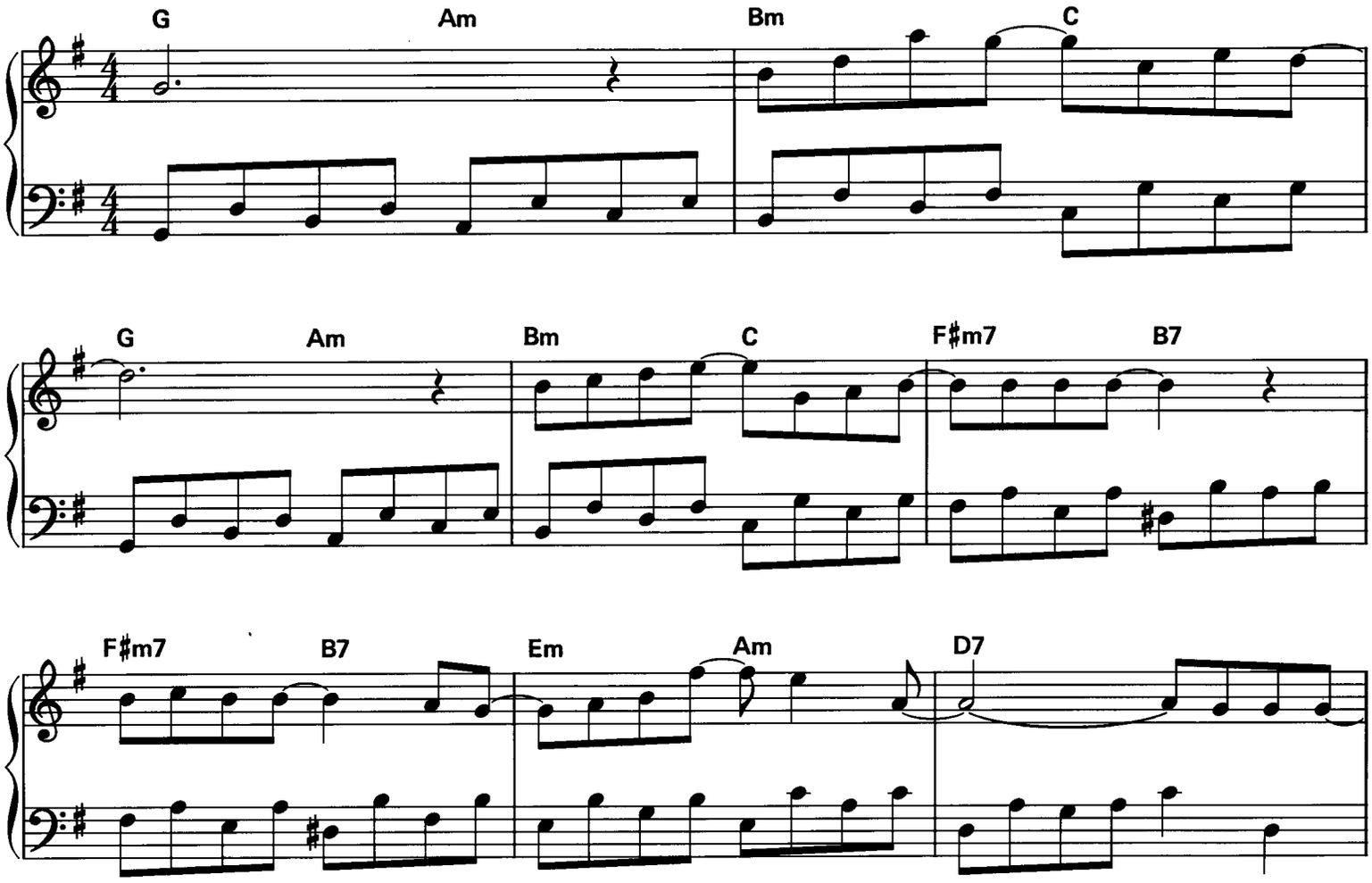
*Temporary voice combination, with split point at F above middle C (see page 10).

SYNTH 3 produces an ethereal atmosphere that complements lyrical melodies.

Here, There And Everywhere

Words and Music by
John Lennon and Paul McCartney

ACOUSTIC GUITAR/SYNTH 3*



*Temporary voice combination, with split point at F♯ above middle C (see page 10).

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.

For a characteristic vibes sounds, observe this limitation when playing the Vibes on the Ensemble Grande MARK II, 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:

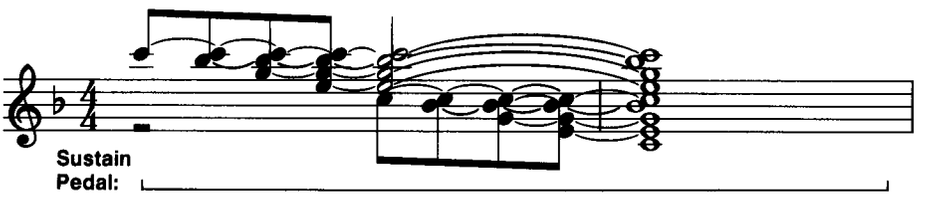
- Play as few notes as possible at one time.
- Wide spacings between notes sound best, especially in the low range. (Dissonant jazz chords are most characteristic, as the example on the following page shows.)

The range of real vibes is:

The Ensemble Grande MARK II Vibes voice covers the entire keyboard. For authentic-sounding vibes playing, play within the range shown above.

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

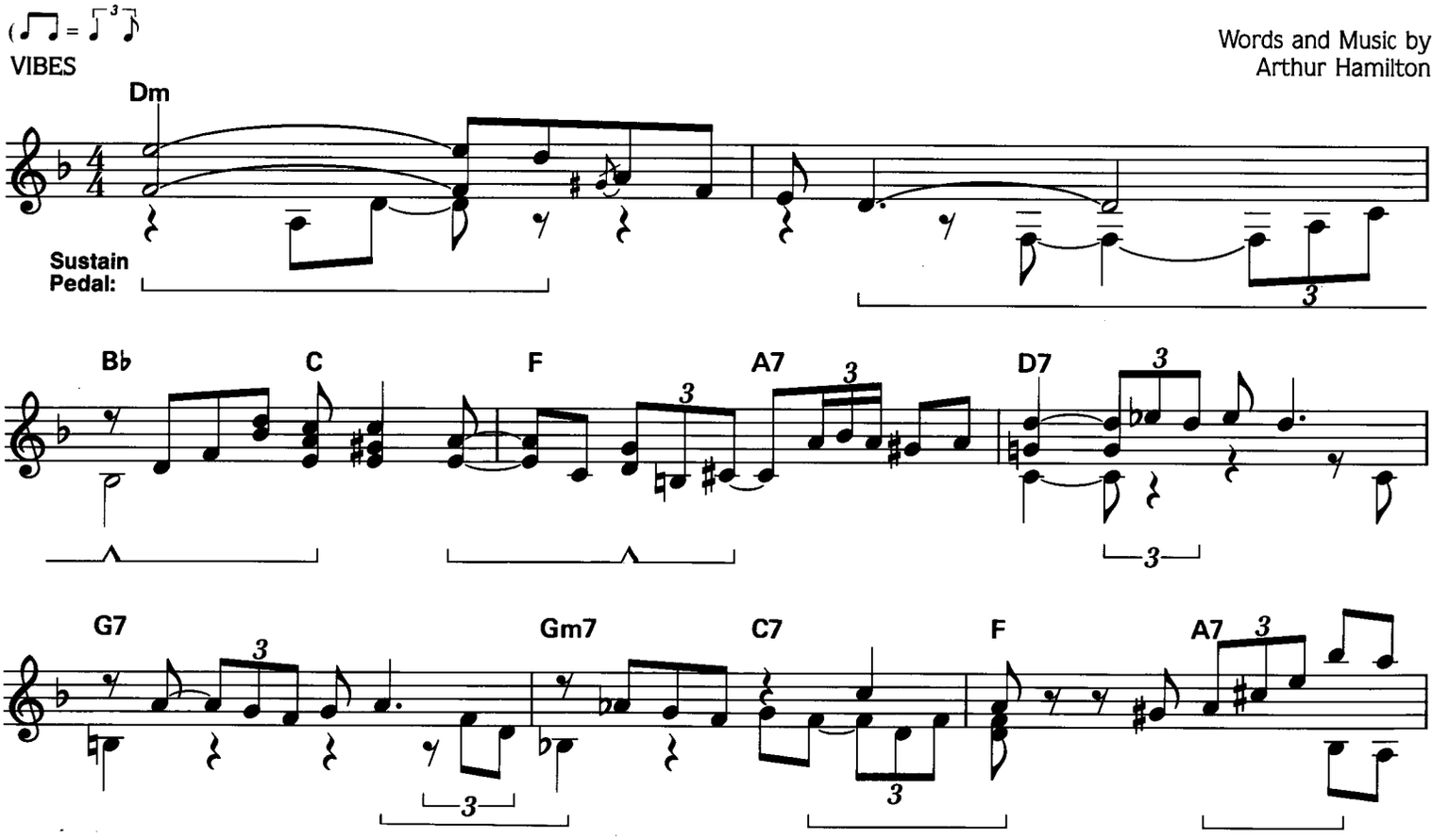
VIBRATO VIBES or
PHASED VIBES



The warmth and expressiveness of VIBRATO VIBES and PHASED VIBES work best in playing slow tunes, while the bright edge of "straight" VIBES is suited to music with more movement.

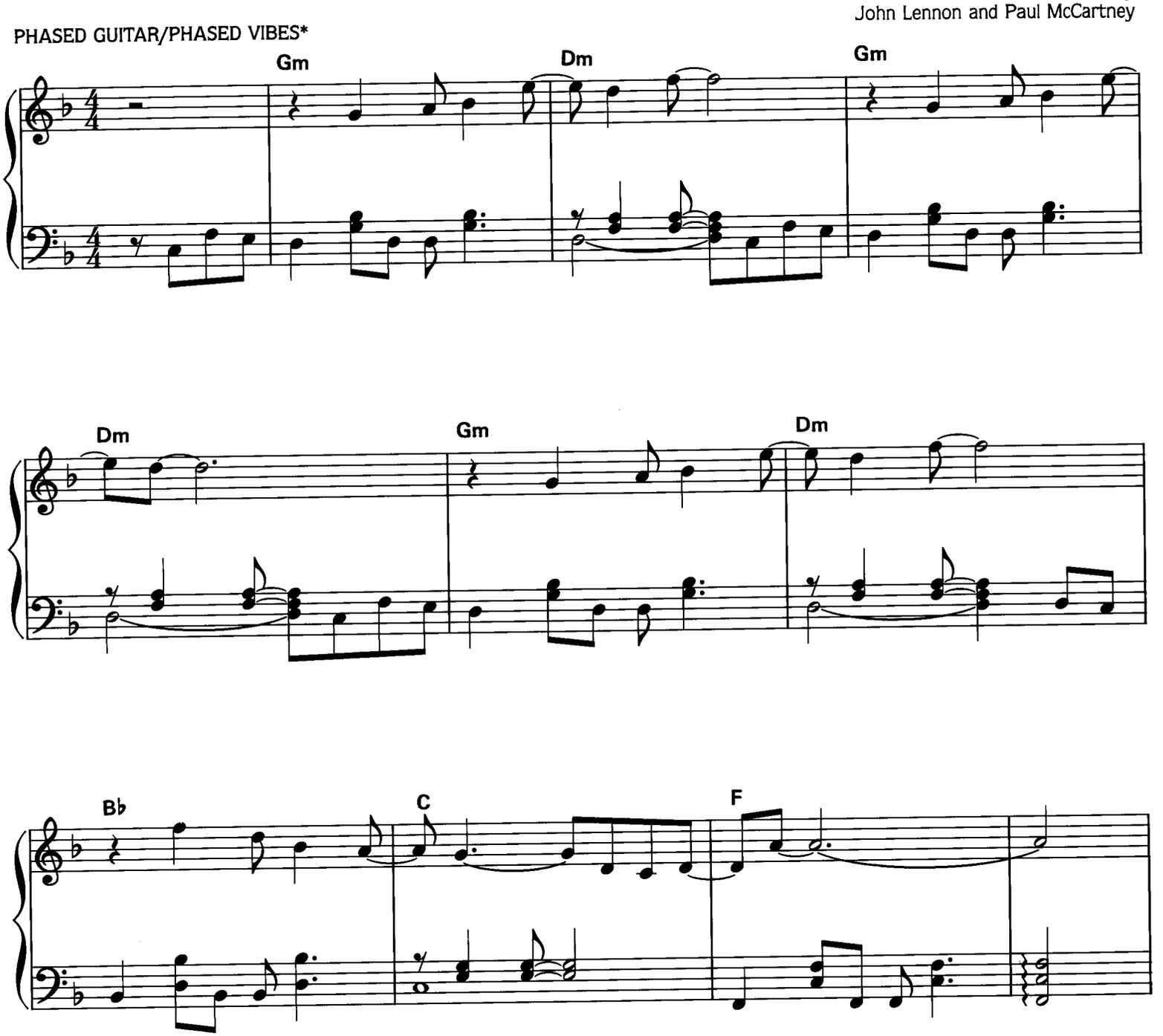
NOTE: In the following example, play the up-stemmed notes with your right hand and the down-stemmed notes with your left hand.

Cry Me A River



And I Love Her

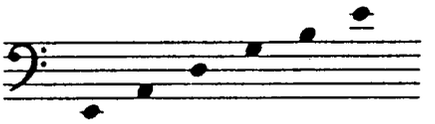
Words and Music by
John Lennon and Paul McCartney



*Temporary voice combination, with split point at middle C (see page 10).

GUITAR

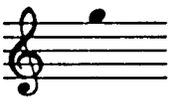
A guitar has six strings, tuned as follows:



Thus, for authentic-sounding playing with any of the Guitar voices, observe these two restrictions:

- Don't 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.

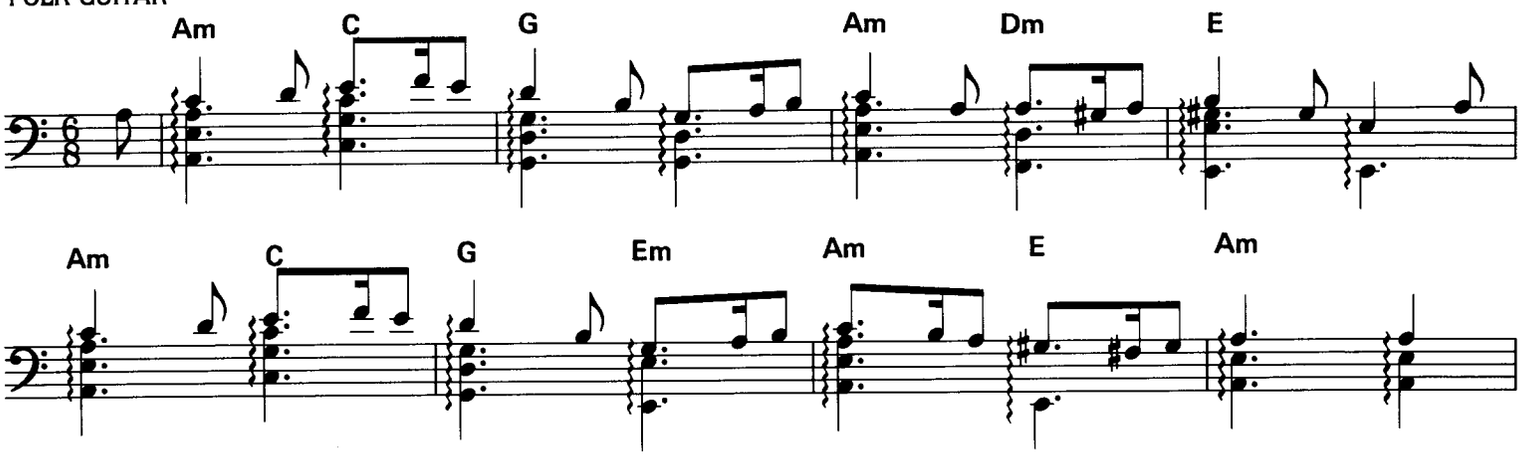
When playing the Ensemble Grande MARK II, "roll" the notes of the chord from the bottom to top (notated with a wavy line:), holding each note down in succession. The slower and more pronounced this rolling is, the more convincing a "guitarist" you'll be.

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

The FOLK GUITAR voice duplicates the sound of a guitar with nylon strings. This kind of guitar is used for classical music as well as folk music.

Greensleeves

FOLK GUITAR



The ACOUSTIC GUITAR voice duplicates the sound of a guitar with steel strings. This kind of guitar is often used in music that calls for fingerpicking technique. As the name of this technique 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 acoustic guitar 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.

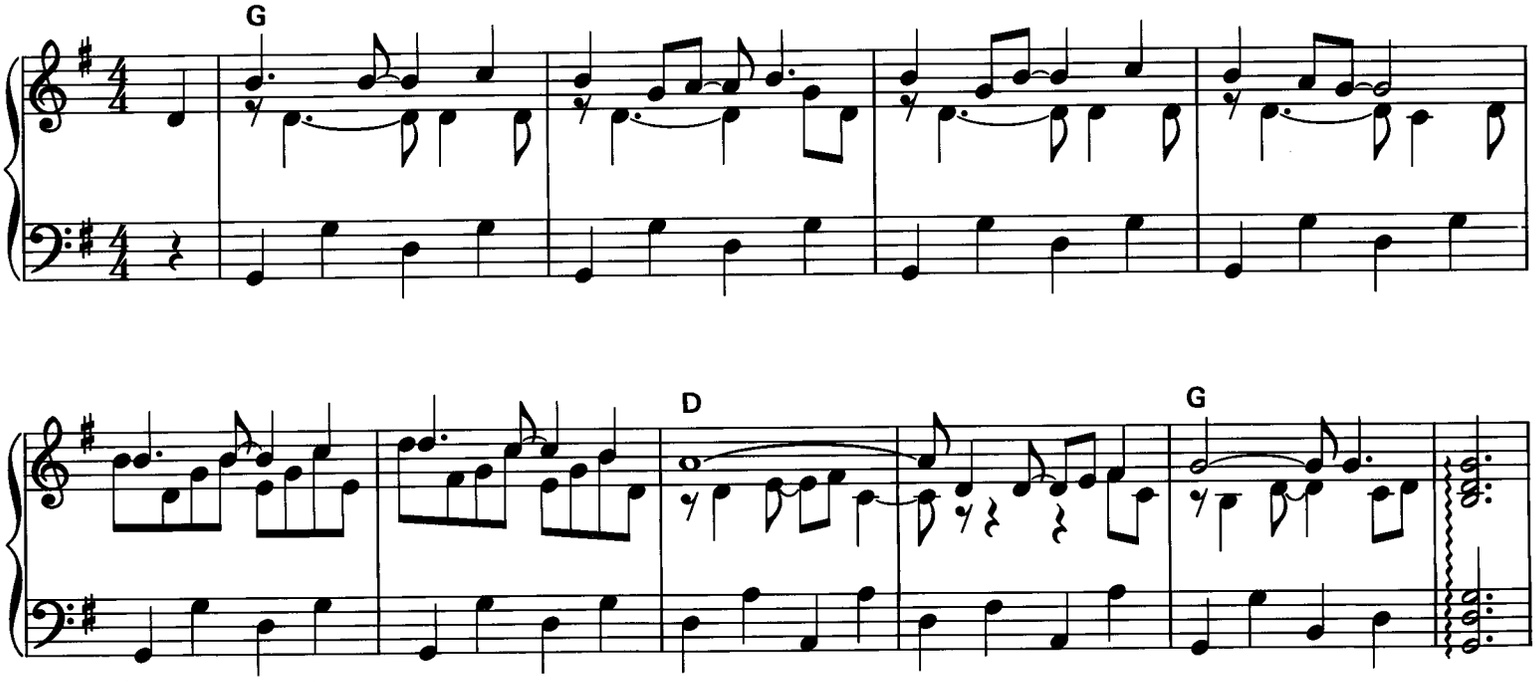
As a rule, only one or two notes are plucked at one time in Travis picking, and a total of only two to four notes ever sound simultaneously.

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.

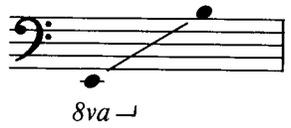
ACOUSTIC GUITAR or
PHASED GUITAR

Words and Music by P.F. Sloan,
S. Barri, B. McGuire and B. Howe



ACOUSTIC BASS

The natural range of the acoustic bass is as follows:

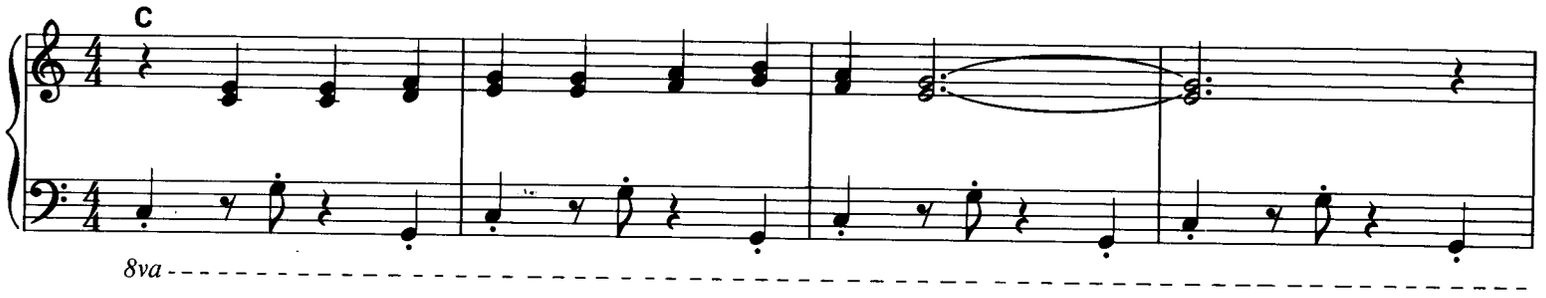


In slow ballads, the bass plays a simple part, usually alternating between the root and the fifth of the chord.

Spanish Harlem

Words and Music by
Jerry Leiber and Phil Spector

BASS/GUITAR

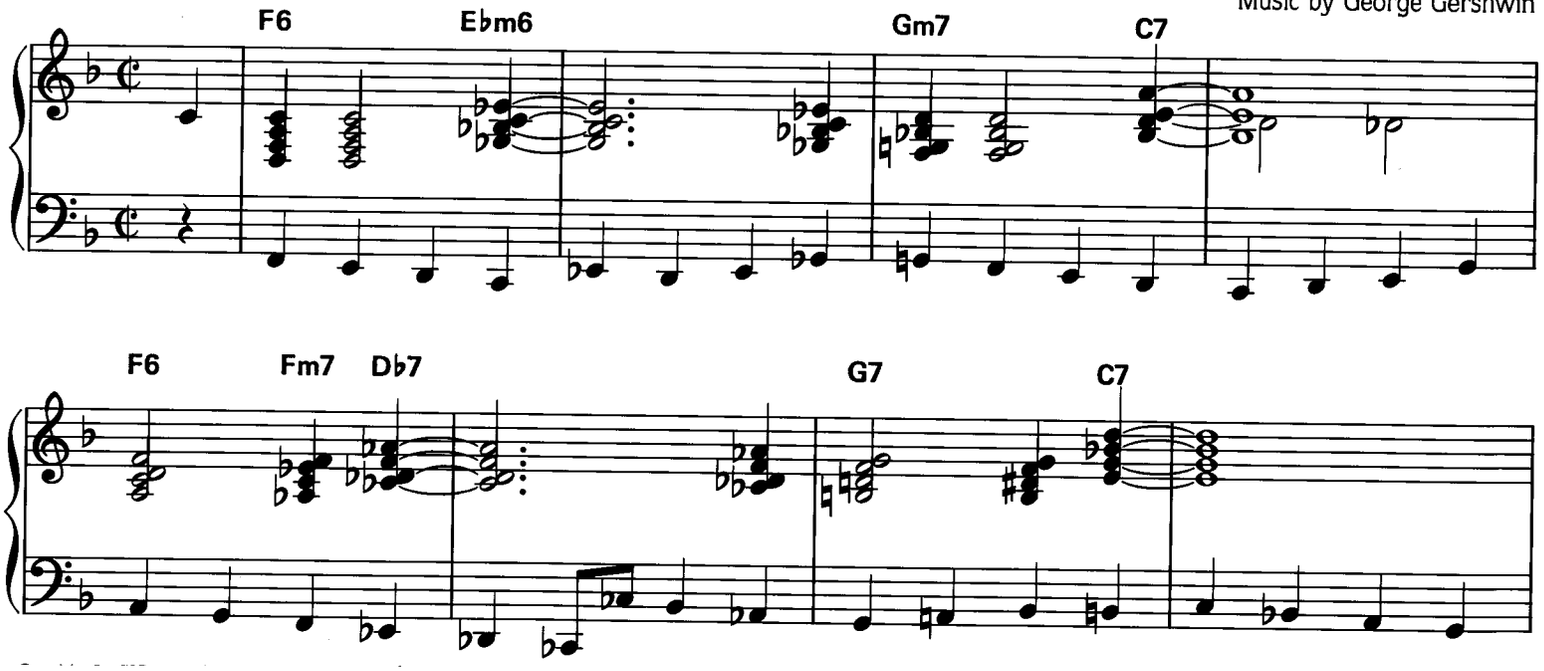


Perhaps the most prominent role played by the bass is in up-tempo jazz, to provide a "walking" bass line that propels the music with its quarter-note pulse.

A Foggy Day

Words by Ira Gershwin
Music by George Gershwin

LEAD BASS/JAZZ ORGAN*



*Temporary voice combination, with split point at D♭ below middle C (see page 10).

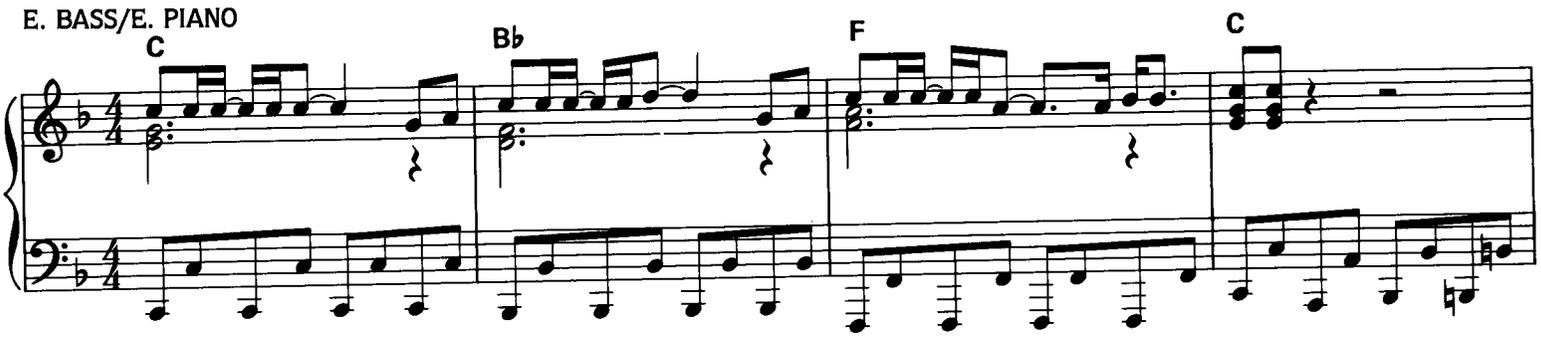
ELECTRIC BASS

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

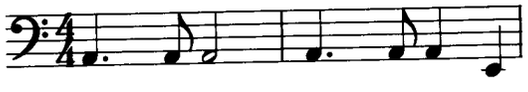
Words and Music by Barry Gibb,
Robin Gibb and Maurice Gibb



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 Electric Bass voice 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 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.

BRIGHT E. BASS

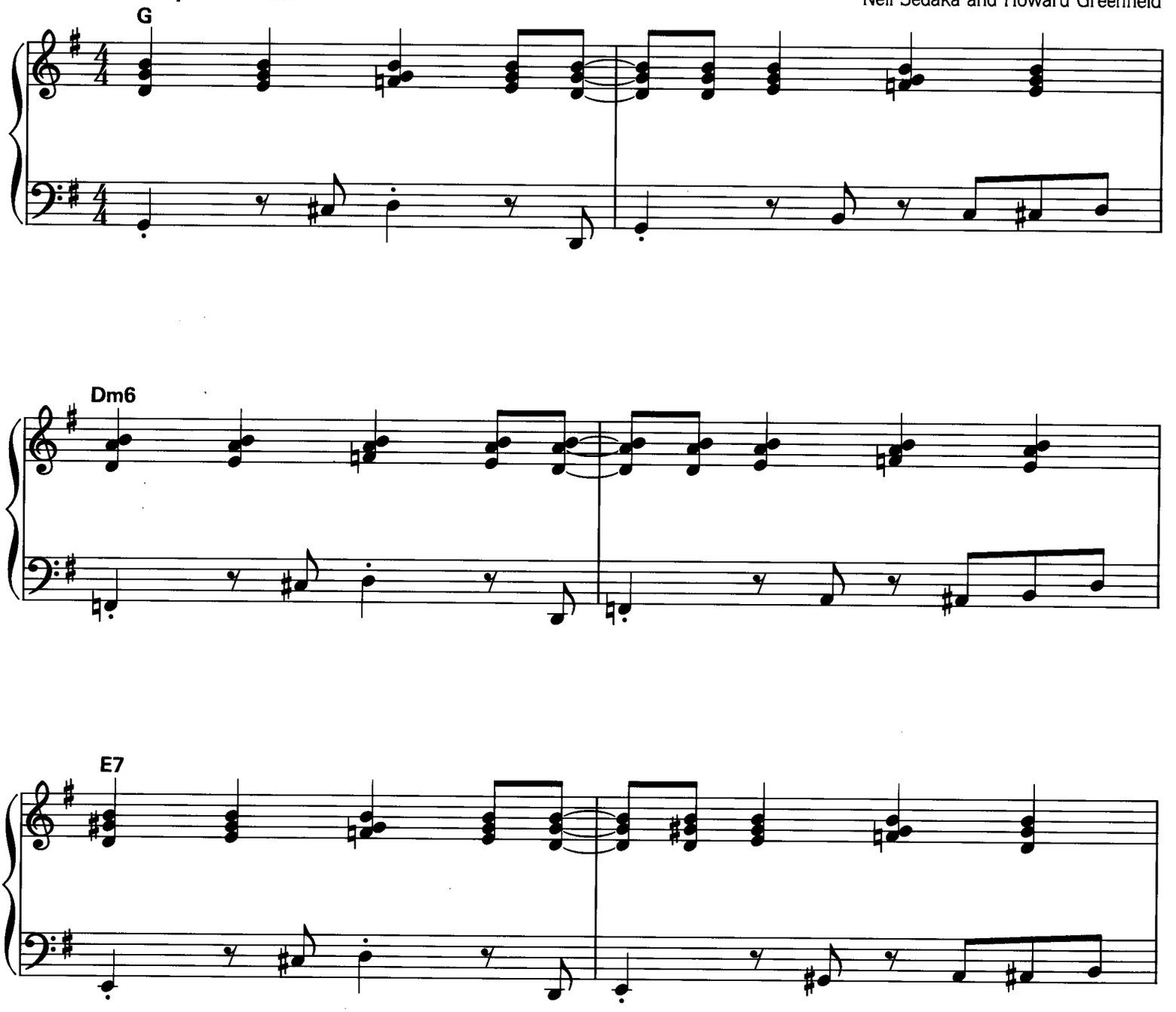


The following is an example of a moderately involved bass line.

Love Will Keep Us Together

PHASED E. BASS/ROCK PIANO*

Words and Music by
Neil Sedaka and Howard Greenfield



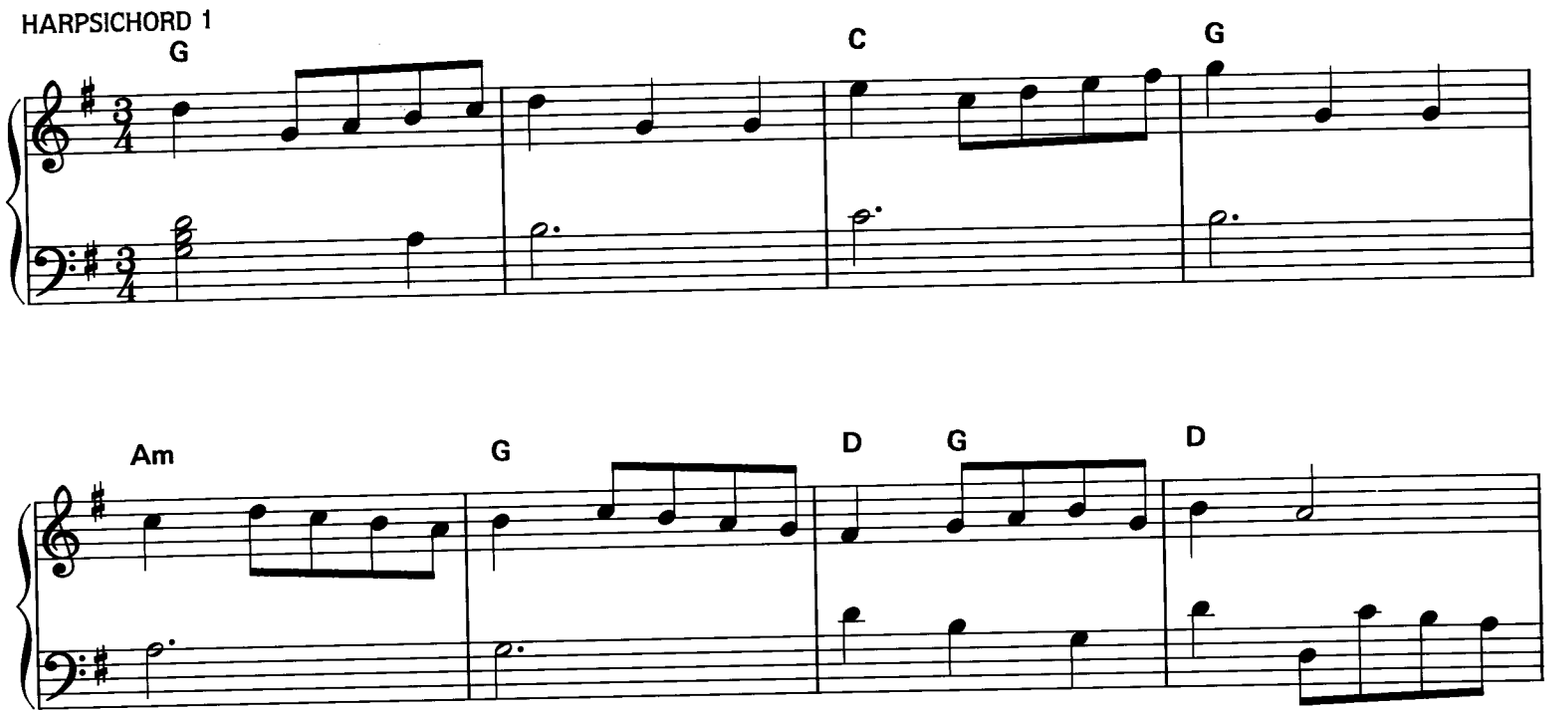
*Temporary voice combination with split point at G below middle C (see page 10).

HARPSICHORD

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.

Minuet

J.S. Bach



Chords on the harpsichord usually are rolled from bottom to top, as they are on the guitar. But whereas the guitarist rolls chords out of **physical** necessity (the thumb strumming the strings), the harpsichordist does so out of **acoustical** necessity: The attack (beginning) of a note on the harpsichord is extremely complex acoustically; when several notes are played at the same time, the simultaneous attacks can obscure the actual pitches of the notes. Rolling any chords — playing the notes one after another rather than all at once — maintains clarity.

Chaconne

J.S. Bach