

STUDIES
IN
HARMONY
OF
CHURCH MUSIC

BY
JAMES TACKETT

STUDIES
IN
HARMONY
OF
CHURCH
MUSIC

A study in the basics of harmony
as it applies to a'cappella church music

by
James Tackett

Published for and by the
Singing School
at
ABILENE CHRISTIAN UNIVERSITY

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DEDICATION

This book is dedicated to the numerous song writers and teachers that I have studied under over the years, especially to the memory of Austin Taylor whose dedication to the Lord and the church's music has been an inspiration to all his students. For many years he was the music editor for the Firm Foundation Publishing in Austin, Texas, was the author of over 200 published hymns and taught at the Texas Normal Singing School in Sabinal, Texas for some thirty years. Many great teachers have gone before us, holding forth in summer schools to students who now pass it on to the next generation of those who are unable to obtain an education in music any other way. We have failed to amply express our appreciation for those efforts because we so often fail to realize the magnitude of the hard work they contributed as we sat at their feet. We want to let them and their families know that their time was not wasted. We hope the good that comes from this and other books will be a testimony to their work.

Thank you, Brother Taylor!

Also, I want to dedicate everything learned from this book to our Lord. He is my reason for singing and I want others to be able to enjoy praising Him better in their worship in song.

Thank you, Lord!!!

PREFACE

STUDIES IN HARMONY OF CHURCH MUSIC has been specifically designed for use at **The SINGING SCHOOL at ABILENE CHRISTIAN UNIVERSITY** and other church music singing schools. Careful attention has been given to the content to make sure that all material in this subject area is presented that will be needed by individuals beginning their education in the study of church music harmony (our first year of harmony study).

This text is the result of many years of successful implementation of methods used by the instructors of this school in their work at the TEXAS NORMAL SINGING SCHOOL in Sabinal, Texas, the TEXAS SINGING SCHOOL at TRINITY UNIVERSITY in San Antonio, Texas, and The SINGING SCHOOL at ABILENE CHRISTIAN UNIVERSITY in Abilene, Texas.

If you are a teacher and planning to teach harmony as it applies to church music, you will find this material in an order easy to present. Exercises within each chapter will help build skills in each of the areas covered in the text. Twelve to eighteen hours are needed for lecture time with an additional twelve to twenty-four hours for application. It is a good idea to have exercises besides the ones in this book ready for faster students, not only to keep them busy, but to encourage further development.

If you are a student, you will like the building block approach to the presentation of material. All new terms are defined as they are presented in the text. If you find that you do not understand the prerequisites covered in chapter one, then you will find **FUNDAMENTALS OF CHURCH MUSIC THEORY** by this author of great help in acquiring that knowledge.

For information about the one week summer session or material published by the SINGING SCHOOL at Abilene Christian University, write to:

SINGING SCHOOL at ACU
800 Baker Park
Sherman, Texas 75092
(903)892-9635
JoeFurr@aol.com

James Tackett
8705 Bridgeport Drive
Austin, Texas 78758-7408
(512)785-9303
James@paperlesshymnal.com

More information may be obtained at:
www.singingschool.org
and
www.paperlesshymnal.com

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INTRODUCTION

Why Shaped Notes?

All church music sung in the Western World is based upon the Diatonic Scale. A. B. Aiken, in the year 1847, invented a form of notation that displays the Diatonic Scale upon the staff. Upon learning this notation, called Shaped Notes, sight singing is made much easier if the songs are printed using the method.

Using shaped notes is especially useful when writing harmony. Instead of learning to spell chords in thirteen different keys, you only learn them once using shaped notes. The use of shaped notes reduces confusion and limits frustration for the beginning composer, making harmony much easier to understand. The method does have its limitations, but you will not find any music being used in services by the church today that cannot successfully use shaped notes.

This is just the beginning but a good one.

This book is the introduction to harmony, presenting only the fundamentals. However, that does not mean that you will not be able to write good and beautiful harmony using only the things learned here. This is not material you must learn before you go on to the *real* thing. To the contrary, most of the harmony in the songs found in our hymnals uses *only* the principles presented here. That is why these basic roots are so important. It isn't just a matter of learning to crawl before learning to walk, you will be using what we cover here no matter how far you go in your education in music.

We will be establishing a firm foundation on which you may build the rest of your music education, so learn the *rules* well and you will have more pleasure in adding to them and knowing when to break them in later studies.

Do not skip around in this study. Each lesson is based on the principles established in previous ones. You can get lost if you do not know the road behind.

Composition or arranging are not covered in this series. However, an appendix has been included with helps for the novice.

Nothing new will be discussed here.

Our intentions in this book are not to introduce something new to the world of music, but to teach in an understandable way, the things that are already being taught. Many of our illustrations are borrowed from "The Eureka Harmony Method" by S. J. Oslin which was published by The Hartford Music Company. We have permission to reprint "Eureka" but in recent years have chosen to revamp our teaching methods, but we still use the many of the illustrations, examples and exercises from that book. They have worked well in the past and continue to do so even today.

Why two books.

This text is divided into two books. Book One covers the material normally taught in our first year harmony class while Book Two covers the additional material covered by the second year class.

1

Basic Prerequisites and the Diatonic Scale

Scope: This chapter is a review of material you should be familiar with before going further into the text. Also the Diatonic Scale is introduced.

Prerequisites

This book requires a certain basic knowledge of music. You should be familiar with the following topics before attempting to learn the material in this book. The exercises below should help you decide if you need to review.

G Clef (Treble Clef) 

On the staff below, write in the absolute pitch names of the tones.



— — — — — — — — — —

F Clef (Bass Clef) 

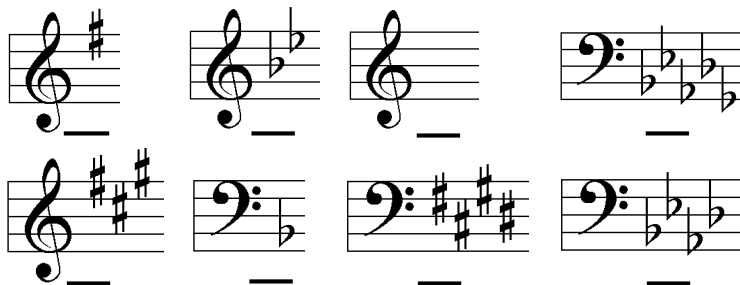
On the staff below, write in the absolute pitch names of the tones.



— — — — — — — — — —

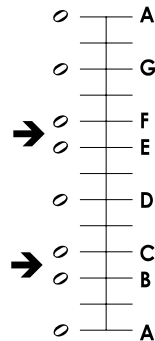
Key Signatures

Give the name for each of the major key signature names below.

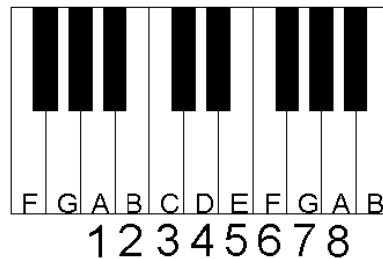


Chapter 1 - Basic Prerequisites and the Diatonic Scale

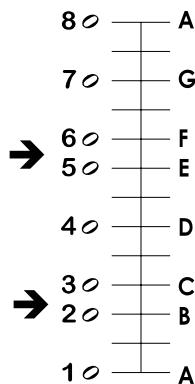
The distance between the tones of a scale can be more easily shown by placing the tones on a gauge on which each line of the gauge represents a *half step* (semitone). When the tones of the scale shown above are placed upon a gauge, we find that all the tones are two half steps (one *whole step*) apart except those between the tones B and C and tones E and F.



This is easily seen on a piano keyboard. Notice that there is no black key between the B and C keys and no black key between the E and F keys. Therefore, the white keys next to each other without a black key between them are a half step apart.



When the tones of the scale are numbered 1 through 8, notice that the half steps occur between tones 2 and 3 and between tones 5 and 6. Whenever a scale is produced with half steps occurring only between the 2nd and 3rd tones and 5th and 6th tones, this is called the *Natural Minor Scale*. The minor scale was used more than any other scale in religious music during the time when music was being formalized into a written language.



Chapter 1 - Basic Prerequisites and the Diatonic Scale

The next scale shown starts on C and proceeds upward to the next C. The keynote of this scale is therefore C. Also, notice from the gauge that tones E (the third tone) and F (the fourth tone) are a half step apart. The same is true about the tones B (the seventh tone) and C (the eighth tone). Whenever a scale is formed in which the 3rd and 4th tones and the 7th and 8th tones are a half step apart, the scale is called a *Major Scale*. The major scale has been around as long as the minor scale but was used for the joyous songs used in public houses. Because of this, it was not used in church music until the 1500's. Most music today, including church music, is written using major scales. This book will deal mainly with harmony written using the Major Scale.

* = 1/2 step

C D E* F G A B* C

C
B
A
G
F
E
D
C

The following Major Scale has a keynote of D. Notice that the half steps still fall between tones 3 and 4 and between 7 and 8. The *Absolute Pitches* of the staff have been modified by the Key Signature to make them coincide with the Major Scale. The note shapes will be covered on the next page.

D
C#
B
A
G
F
E
D

D
C#
B
A
G
F#
E
D

Chapter 1 - Basic Prerequisites and the Diatonic Scale

Whenever the Major Scale is shown with only the tones of the scale and with no accidentals, it is the *Major Diatonic Scale*. Each of the tones of the Major Diatonic Scale has a name. As shown below, tone 1 is called *Do*, tone 2 is called *Re*, 3 is *Mi*, 4 is *Fa*, 5 is *Sol*, 6 is *La*, 7 is *Ti*, and tone 8 is again *Do*.

Each of the tones of the Major Diatonic Scale can be represented by a symbol. The symbols are used in place of the head of the individual tones, Do (\triangle), Re (\ominus), Mi (\diamond), Fa (\blacktriangle), Sol (\circ), La (\square), and Ti (∇), as was done in the last illustration. By using these symbols it is easy to sing the tones of the diatonic scale, no matter what key the song is written in. The half steps will always occur between Mi and Fa and between Ti and Do.

The image shows two musical staves. The top staff is in B-flat major (one flat) and the bottom staff is in D major (two sharps). Both staves show the major scale ascending and then descending. The notes are labeled with symbols: Do (triangle), Re (circle with horizontal line), Mi (diamond), Fa (black triangle), Sol (circle), La (square), and Ti (inverted triangle). The notes are placed on the staff lines to show their positions.

On the following staves, write in the tones using the symbols of the notes of the Major Diatonic Scale for the keys shown.

The image shows four pairs of musical staves (treble and bass clef). The first pair is in F# major (one sharp), the second in C# major (two sharps), the third in B-flat major (two flats), and the fourth in E-flat major (three flats). The staves are blank, intended for the student to write the major scale using the symbols for each tone.

Summary: *The Major Diatonic Scale is the basis for most of the music we sing. It is made up of eight tones: Do (\triangle), Re (\ominus), Mi (\diamond), Fa (\blacktriangle), Sol (\circ), La (\square), Ti (∇), and Do (\triangle).*

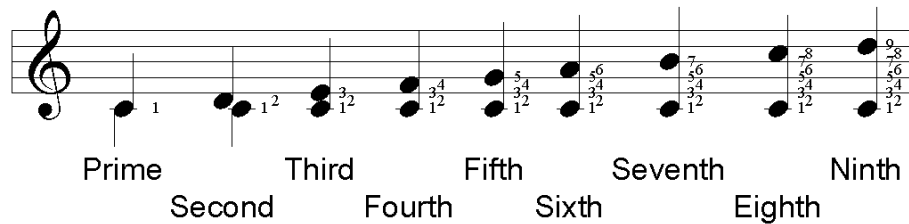
Additional Notes:

2 Intervals

Scope: This chapter introduces the interval, the basic unit of harmony.

Intervals

An *interval* is the pitch difference between two tones of a scale. If the two tones are on the same degree on the staff and are the same pitch, the interval is called *prime* or *unison*. A *second interval* is represented by two tones that are on degrees adjacent to one another. Those and the other intervals that we are interested in for our discussion are shown below. The interval between two tones can be found by starting with one tone and counting the degrees to the other tone. Make sure to count the degrees on which the tones reside.



In the exercise below, write the name of the interval below each set of tones.



Simple intervals are those intervals which are an octave or less. Therefore, all the intervals in the example above are simple except for the ninth.

Compound intervals are those intervals that are more than an octave. In the example above, the ninth interval is a compound interval since it extends beyond an octave.

A *melodic interval* is made up of two tones sounded in succession, such as two tones in a melody.

A *harmonic interval* is made up of two tones sounded together and written one directly over the other. The purpose of this book is to explore the use of harmonic intervals in church music.

A *diatonic interval* is made up of two tones whose pitches have not been changed by an accidental.

Chromatic intervals are made up of two tones whose pitch difference in steps and half steps have been altered by an accidental.

Chapter 2 - Intervals

Intervals suggest only distance in degrees, not actual distance in steps and half steps. When expressed in steps and half steps, intervals can be one of five different classes: perfect, major, minor, augmented, and diminished.

Perfect intervals can be 0, 2½, 3½, or 6 steps apart. A perfect interval when inverted remains perfect and retains its consonance. This is actually why it is called "perfect". Inversions are covered later in this chapter. Diminished and augmented intervals share the following relationships with perfect intervals.

$$\begin{array}{ccc} \text{Diminished} & \text{Perfect} & \text{Augmented} \\ -1/2 \text{ step} & \leftarrow 0 & \rightarrow +1/2 \text{ step} \end{array}$$

The remaining classifications of intervals have the following relationship.

$$\begin{array}{cccc} \text{Diminished} & \text{Minor} & \text{Major} & \text{Augmented} \\ -1/2 \text{ step} & \leftarrow -1/2 \text{ step} & 0 & \rightarrow +1/2 \text{ step} \\ -1/2 \text{ step} & \leftarrow 0 & \rightarrow +1/2 \text{ step} & \end{array}$$

Therefore, using a major interval as a reference, an augmented interval is produced by increasing the major interval ½ step. A minor interval is produced by decreasing a major interval ½ step. When using a minor interval as a reference, a major interval is produced by increasing the minor interval ½ step and a diminished interval will be produced by decreasing a minor interval ½ step.

The following examples are not the only ones that meet the requirements for each class of intervals but are shown as examples only. Any two tones that met the requirement for a particular interval could have been shown.

There are three kinds of *second intervals*. Second intervals occupy adjacent degrees on the staff. The tones of a *minor second interval* are ½ step apart while the tones of a *major second interval* are one full step apart. The *augmented second interval* is ½ step larger than the major second interval.



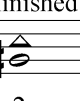
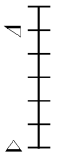
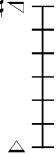
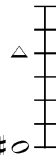
Major Minor Augmented

There are three kinds of *third intervals*. The *minor third interval* is ½ step smaller than the *major third interval*. The *diminished third interval* is one ½ step smaller than the minor third interval. There is no augmented third interval.



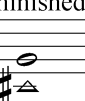
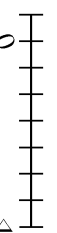
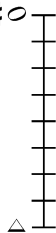

Major Minor Diminished

Chapter 2 - Intervals


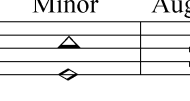
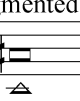
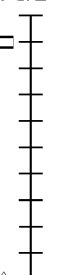
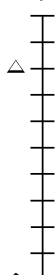
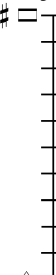
There are three kinds of *fourth intervals*.

Perfect	Augmented	Diminished
		
2 1/2	3	2
		


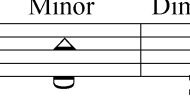

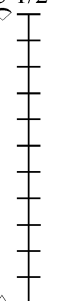
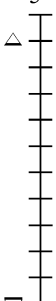
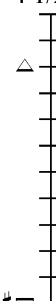
There are three kinds of *fifth intervals*.

Perfect	Augmented	Diminished
		
3 1/2	4	3
		

There are three kinds of *sixth intervals*.

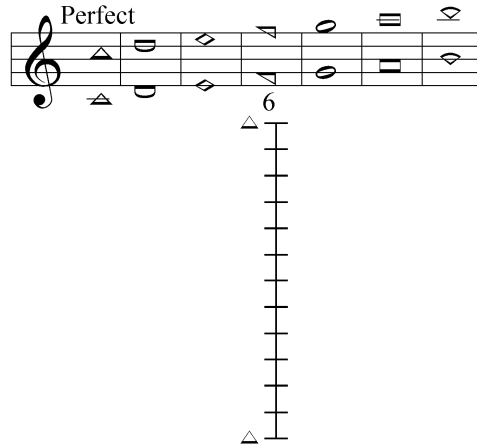
Major	Minor	Augmented
		
4 1/2	4	5
		

There are three kinds of *seventh intervals*.

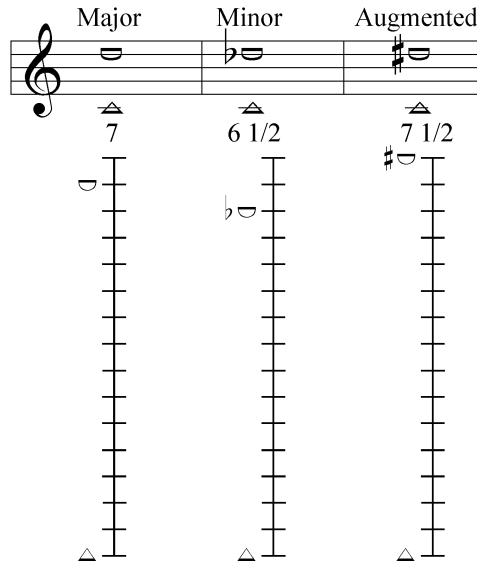
Major	Minor	Diminished
		
5 1/2	5	4 1/2
		

Chapter 2 - Intervals

There is only one kind of *eighth interval* or *octave*. The octave is always a perfect interval and there are no modifications to the interval.

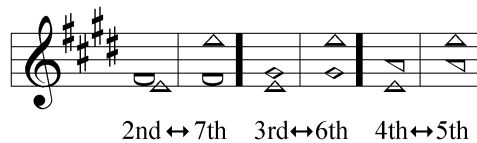


There are three kinds of *ninth intervals*.



Inverted Intervals

When two diatonic tones are *inverted* (i.e. the bottom tone placed above the top tone), the interval is changed. The example below shows a 2nd interval becoming a 7th interval when inverted and conversely a 7th interval becoming a 2nd interval when inverted. A 3rd becomes a 6th, a 6th becomes a 3rd, a 4th becomes a 5th, and a 5th becomes a 4th.



Notice in the example above that when considering an interval and its inversion, the interval names when added together equal “9”. For instance, the inversion of the 2nd is a 7th. Two plus seven equals nine. These are called *complementary intervals*. Said another way, the 7th interval is the complementary interval of the 2nd interval.

Chapter 2 - Intervals

The character of the intervals change when inverted except for the perfect intervals. A perfect interval when inverted remains perfect and therefore the character does not change. A major interval becomes minor when inverted and a minor becomes major. An augmented interval becomes diminished and a diminished becomes augmented.

The image displays five musical staves illustrating interval inversions. Each staff shows a pair of notes in two positions: original and inverted. The intervals and their inversions are as follows:

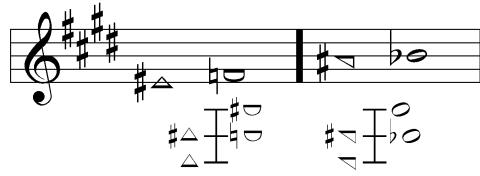
- Staff 1:** Perfect 4th → Perfect 5th; Perfect 5th → Perfect 4th.
- Staff 2:** Major 2nd ↔ Minor 7th; Major 3rd ↔ Minor 6th; Major 6th ↔ Minor 3rd; Major 7th ↔ Minor 2nd.
- Staff 3:** Minor 2nd ↔ Major 7th; Minor 3rd ↔ Major 6th; Minor 6th ↔ Major 3rd; Minor 7th ↔ Major 2nd.
- Staff 4:** Augmented 2nd ↔ Diminished 7th; Augmented 4th ↔ Diminished 5th.
- Staff 5:** Diminished 3rd ↔ Augmented 6th; Diminished 4th ↔ Augmented 5th.

All intervals do not share the same sound quality. The quality of the sound of an interval is described as either *concordant* or *consonant* (sounding pleasing) or *discordant* or *dissonant* (not sounding pleasing). The consonant intervals are all perfect, major and minor thirds, and sixth intervals. The dissonant intervals are all diminished, augmented, second, and seventh intervals. The consonant or dissonant relationship between two tones can be charted as below. At the top of the list are the tones that sound best together. The sound gets progressively worse as you go down the list.

Primary Consonant	Prime, Octave Perfect Fifth Major Third
Secondary Consonant	Perfect Fourth Major or Minor Sixth
Dissonant	Minor Third Minor Seventh All Diminished Intervals All Augmented Intervals Major Second Major Seventh Minor Second

Chapter 2 - Intervals

Enharmonic intervals are intervals that sound the same but are found on different degrees of the staff. Even though the pitches are the same, they are not called prime or unison intervals since the tones do not reside on the same degrees of the staff.



Summary: *Intervals are the basic units of harmony. Some sound pleasant and others do not. In general, your ears will tell you which tones sound good together.*

Additional Notes

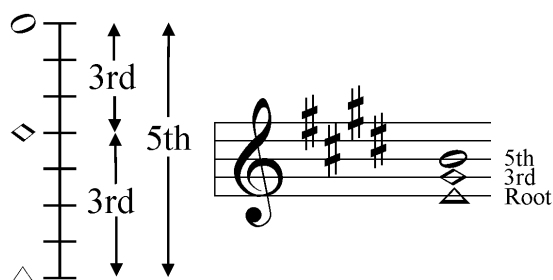
3

Chords of Major Keys

Scope: This chapter will introduce the chords of the Major keys.

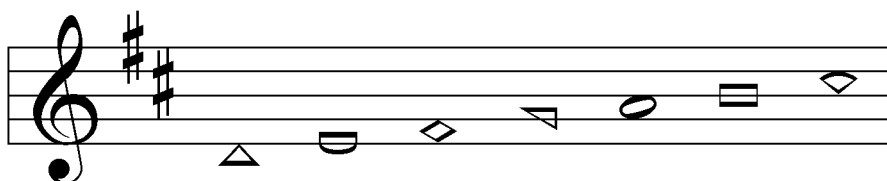
When two tones are sung at the same time, only an interval is sounded. This is called a *Dyad*. Dyads are not complete *chords* even though they may be used in the place of chords in a song. A series of dyads are used when writing a duet. Three or more tones being sung at the same time are required to form a chord. Chords with three tones are called *Triads*.

Any two third intervals that share a tone will form a triad. The lowest tone of the triad is called the *fundamental* or *root*. This is the tone on which the chord is built. The next tone up is the 3rd of the chord and the top tone is the 5th of the chord. Chords built by stacking thirds are called *Tertian Harmony*.

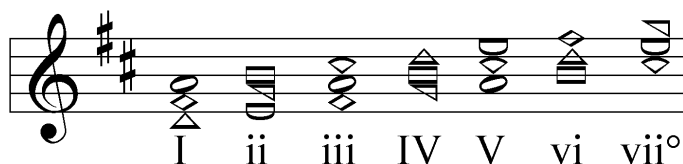


In the example above, Do (\triangle , the tone E) is the root of the chord, Mi (\diamond , the tone G sharp) is the 3rd and Sol (\circ , the tone B) is the 5th.

On the D Major Scale below, consider each of the tones to be the root of a chord. Form chords using each of the tones by placing the 3rd and 5th above the root.



The chords built from the tones of a scale can be numbered for identification using Roman numerals.

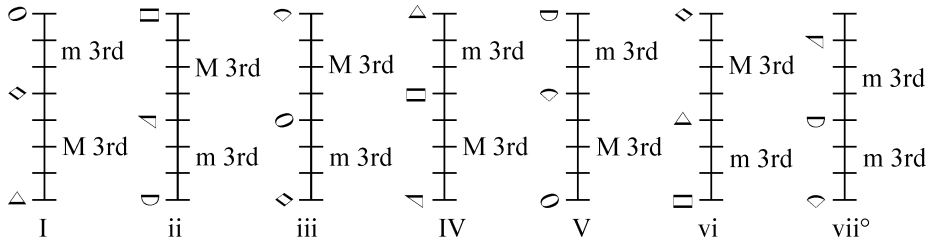


Chords that have a major 3rd for the bottom interval are identified with a capital Roman numeral.

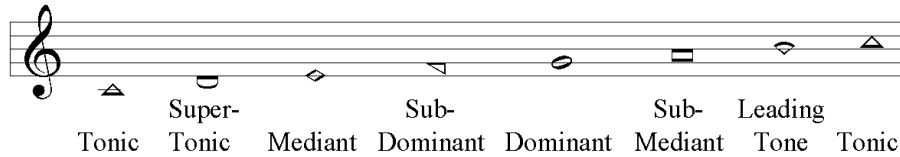
Chapter 3 - Chords of Major Keys

Notice that these chords have a minor 3rd interval on top. Chords with a minor 3rd for the bottom interval are identified with a small Roman numeral. Notice that these chords have a major 3rd interval on top. The vii chord is a diminished chord in that both its 3rds are minor. The ° included with the vii means diminished.

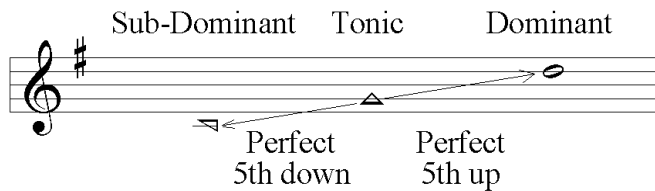
In the illustration below, a capital "M" means major and a small "m" means minor. Notice that chords with a Major 3rd as their bottom interval has a capital Roman numeral as its name. They are major chords. Also notice that chords with a minor 3rd as their bottom interval have numerical names that are not capitalized. They are minor chords.



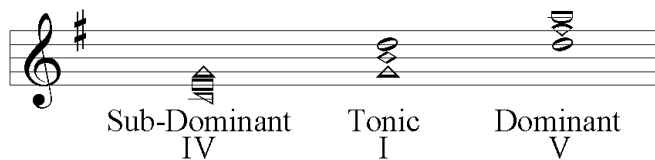
This text will also be using the harmonic names of the tones of the scale.



Music that is written around a single tone is called *Tonal* and harmony written with a tonal center is called *tonal harmony*. The central tone of this kind of music (all the music we usually sing in church) is called the *Tonic* (the keytone of the scale). The two tones that are next in importance to the Tonic are found a perfect 5th above the Tonic (the *Dominant*) and a perfect 5th below the Tonic (the *Sub-Dominant*).



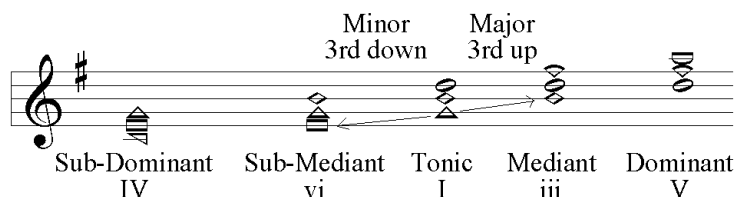
When considering chords of Major scales, the chord with Do as the root is also called the *Tonic Chord*. The chord with Sol as the root is also called the *Dominant Chord* and the chord with Fa as the root is also called the *Sub-Dominant Chord*.



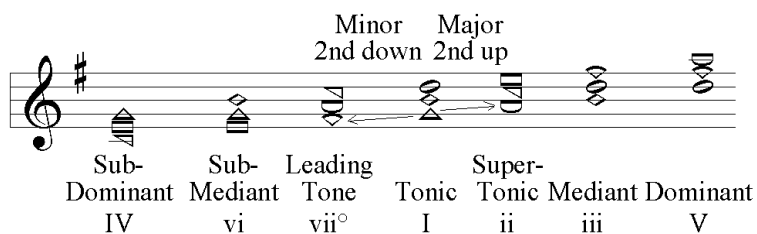
Chapter 3 - Chords of Major Keys

Notice that the Tonic, Sub-Dominant, and Dominant chords are major chords. They are the *primary triads* of music written in a major key. Our church hymns mainly use these three chords.

The two tones that are found a 3rd above and a 3rd below the Tonic are called the *Mediant* (Mi) and the *Sub-Mediant* (La) respectively. The chords with the 3rd of the scale and the 6th of the scale as their roots are therefore called the *Mediant Chord* and *Sub-Mediant Chord*.



The tone found a Major 2nd above the Tonic is called the *Super-Tonic* (Re). The tone found a minor 2nd below is called the *Leading Tone* (Ti). The chords that have these tones as their roots have the same names, the *Super-Tonic Chord* and *Leading Tone Chord*. (In some textbooks, the chord based on the seventh tone of the major diatonic scale is called the *Sub-Tonic Chord*. However, we will reserve that name for our study in minor chords in a later book.)



The Super-Tonic, Mediant, Sub-mediant and Leading Tone chords are *secondary triads* since they are of less importance than the primary triads. All of these chords have a minor interval for its bottom third.

Chapter 3 - Chords of Major Keys

Draw the shapes for the tones to the right of each chord on the staves below and write below each chord the number and name of the chord.

A musical staff in treble clef with a C-clef. It contains seven vertical lines, each representing a chord in the C major key. To the right of each chord are two horizontal lines for drawing the tone shapes.

A musical staff in bass clef with a G-clef and a sharp sign (F#). It contains seven vertical lines, each representing a chord in the G major key. To the right of each chord are two horizontal lines for drawing the tone shapes.

A musical staff in treble clef with a B-flat sign (Bb). It contains seven vertical lines, each representing a chord in the F major key. To the right of each chord are two horizontal lines for drawing the tone shapes.

Summary: *The chords of the Major keys are the Tonic, Super-tonic, Mediant, Sub-dominant, Dominant, Sub-mediant and Leading Tone. Each is based upon one of the tones of the Major Diatonic Scale.*

4

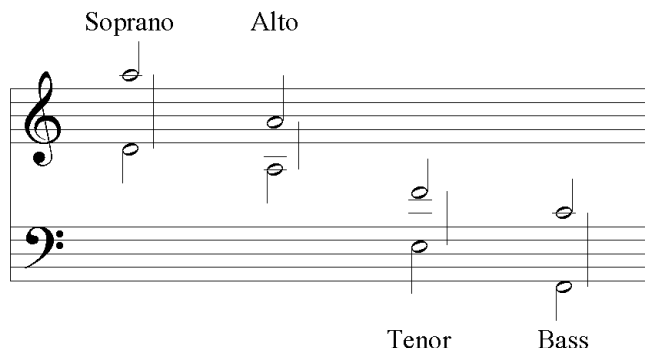
Tonic, Dominant & Sub-Dominant Chords

Scope: Rules for writing good harmony are introduced for the Tonic, Sub-dominant and Dominant Chords.

Some general considerations

Most of the chords used in church music are triads (chords of three tones). However, in church music there are nearly always four voice parts, *soprano* (the high female voice part that usually carries the melody), the *alto* (the lower female voice part), the *tenor* (the high male voice part), and the *bass* (the lower male voice part). The soprano and the alto are displayed upon the G Clef (Treble Clef) staff while the tenor and bass are displayed upon the F Clef (Bass Clef) staff.

The normal or average voice ranges are shown below.



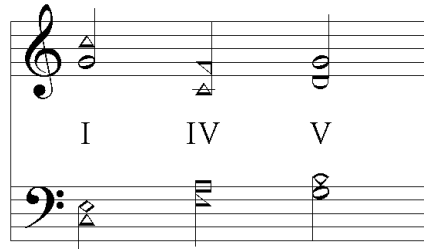
As the tones for each of the voice parts are written, they should stay within the ranges shown above. These are not mandatory barriers but are practical barriers. Since you want your music easy to sing, keep each part within the ranges of the people you are writing for.

To be sure your harmony can be sung, there are several rules that will help if followed. The rules presented here are not absolutes but guidelines toward good harmony. Everything in this book is presented so these rules can be followed without deviation and it is suggested that you follow them so you will become familiar with them.

Rule 1 - Make sure tones for each voice part fall within the normal range for each voice part.

Chapter 4 - Tonic, Dominant & Sub-Dominant Chords

The bass voice part is called the *lower part* while the soprano, alto and tenor are called the *upper parts*. A triad has only three tones, making it necessary for one of the tones in the triad to be used twice (doubled) if all of the voice parts are to sing a tone. For the chord to be as strong as possible, the root should be in the bass and doubled in one of the other voice parts. Each of the Primary Chords is shown below with the root doubled in one of the upper voice parts.



Notice that the first chord is a Tonic chord and that Do (the root) is in the bass and doubled in the soprano. The second chord is a Sub-Dominant chord and Fa (the root) is in the bass and doubled in the soprano. The third chord is a Dominant chord and it has Sol (the root) in the bass and is also doubled in the soprano. If the three chords in the example above are sung, you will find that they sound good individually but not necessarily as pleasing when one is sung immediately after the other. Also they may not be easy to sing in succession as written here. Several rules dealing with progression from one chord to another will be presented to help in this area.

Chords do not have to be displayed with the 3rd in the tenor, the 5th in the alto, and the root in the soprano. When doubling, the root can be in any of the upper parts.

Since the three major chords contain all the tones of the diatonic scale, songs can be sung with only these three chords.

Rule 2 - *When possible, place the root of the chord in the bass.*

Rule 3 - *When the root is in the bass, double the bass in one of the upper parts.*

Whenever adjacent upper parts (soprano and alto, alto and tenor) are over an octave apart, the effect of the chord is lost. To this end, make sure that adjacent upper parts are no more than an octave apart.

Rule 4 - *Adjacent upper parts should be no more than an octave apart.*

Tonic Chord (the I chord)

In the next example, the chords are all Tonic Chords (Do, Mi, and Sol) with Do (the root) in the bass and doubled in one of the upper parts of each chord. Notice that in chord #1, there is no room between any of the upper parts (the soprano, alto and tenor) for other tones of the chord to be placed. This is called *closed structure* and has the strongest harmony. When other tones of the chord can be placed between parts as in chord #2, this is called *open structure*. Notice that between the soprano and alto, the tone Do can be placed and between the alto and tenor, the tone Mi can be placed. It does not matter how far apart the tenor and bass are in determining close or open Structure. Notice that the doubling is achieved in chords #2 and #3 by placing the tenor on the same pitch as the bass.

1 2 3 4

Closed Open Closed Crossed

Notice in the example below that the tenor is pitch D above Middle C while the alto is pitch B below Middle C. The tenor is actually higher in pitch than the alto. This is the case of chord #4 in the example above. The tones are said to be *crossed* and is considered to be improper. A better solution can usually be found.

A B C D E

Rule 5 - Voice parts should not be crossed.

Whenever a chord is written with the root in the soprano, the chord is in the *First Position*. With the 3rd in the soprano the chord is in the *Second Position*. With the 5th in the soprano the chord is in the *Third Position*. The next example shows the Tonic Chord in each of the positions, with the root in the bass and in two different keys, and the other upper parts in possible positions. Both proper and improper composition is shown. (See Rule 4.)

First Position Second Position Third Position

Open Closed More than an octave Open Closed More than an octave Closed Open

Chapter 4 - Tonic, Dominant & Sub-Dominant Chords

Some of the possible chords writings for the Tonic Chord in the Key of F are shown below. Again, not all examples are proper.

First Position Second Position Third Position

Closed Closed Open More than an octave Closed Open Closed Open

For each of the chords in the next exercise, write below each chord whether that chord is open or closed and give its position.

1 2 3 4 5

Structure _____ _____ _____ _____ _____

Position _____ _____ _____ _____ _____

No part should move more than is necessary from one chord to the next. By making the moves small, the individual parts will be easier to sing.

Rule 6 - As you move from one chord to the next in a song, move each voice part to the nearest practical tone of the next chord whenever possible.

The first time you set pencil to paper to write harmony, the task can seem enormous. There are many choices to be made and many rules to keep. The best way to start is by doing a step at a time. In most instances, there is a melody to be harmonized, like the one below.

1 2 3 4 5 6

Chapter 4 - Tonic, Dominant & Sub-Dominant Chords

First, determine which chords you can use in each measure. Since we only have one chord available to us at this point and that chord can be used in all the measures, this decision is easy. Go ahead and write in the root for that chord in the bass for each chord as done below. At this point you will be halfway done.

Next, fill in the remaining voice parts, in this case the alto and tenor. Chord #1 is missing the 3rd (Mi) and the 5th (So). The So could be placed in the alto but that would leave Mi for the tenor, either resulting in the tenor being too high as in example 1a, or more than an octave from the alto as in example 1b below. The best way to fill in this chord is to place the 3rd (Mi) in the alto and the 5th (So) in the tenor as seen in 1c below.

Once the first chord is filled in, move on to the second. The first two chords are completed below. Go ahead and fill in chords 3 through 6. Determine what is missing first. If a root is missing, then determine where you want it doubled, in the alto or the tenor. Then you only one note left. If the root is already doubled, as in chord #3, try to place the two remaining notes in the alto and tenor so that they are moving as little as necessary.

Chapter 4 - Tonic, Dominant & Sub-Dominant Chords

In the exercise below, the soprano is given. You are to provide the notes for the other three parts. Use only the Tonic chord. Write the bass first, then the other two parts (the alto and tenor).

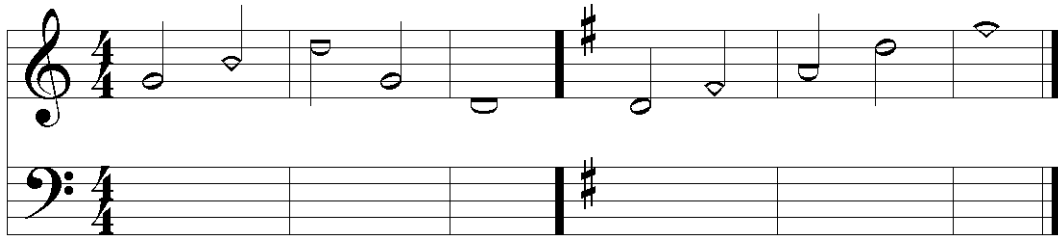
Dominant Chord (the V chord)

In the next illustration the Dominant Chord is shown in first, second and third Positions with the root in the bass and doubled. Both proper and improper examples are shown.

For each of the chords in the next exercise, write below each chord whether that chord is open or closed and give its position.

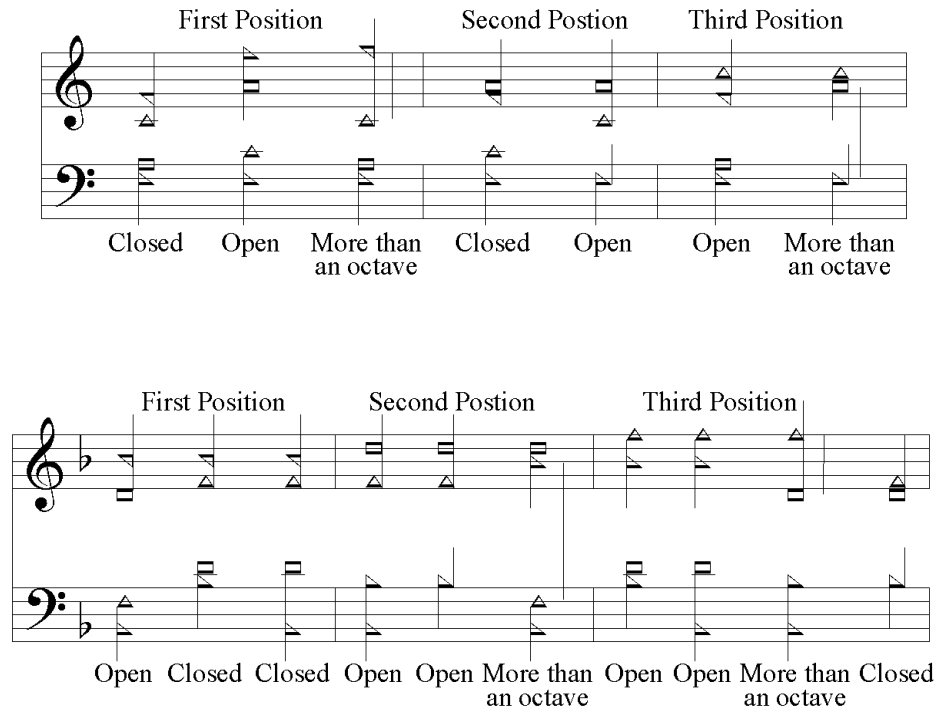
Structure _____
 Position _____

In the next exercise, the soprano has been given. You are to provide the notes for the other three parts. Use only the Dominant Chord. Write the bass first, then the other two parts (the alto and tenor).



Sub-Dominant Chord (the IV chord)

In the next illustration the Sub-Dominant Chord is shown in first, second and third positions with the root in the bass and doubled. Both proper and improper examples are shown.



Chapter 4 - Tonic, Dominant & Sub-Dominant Chords

For each of the chords in the next exercise, write below each chord whether that chord is open or closed and give its position.

	1	2	3	4	5
Structure	_____	_____	_____	_____	_____
Position	_____	_____	_____	_____	_____

In the next exercise, the soprano has been given. You are to provide the tones for the other three parts. Use only the Sub-Dominant Chord. Write the bass first, then the other two parts (the alto and tenor).

Summary:

Rule 1 - Make sure the tones for each voice part fall within the range for that voice part.

Rule 2 - When possible, place the root of the chord in the bass.

Rule 3 - When the root is in the bass, double the bass in one of the upper parts.

Rule 4 - Adjacent upper parts should be no more than an octave apart.

Rule 5 - Voice parts should not be crossed.

Rule 6 - As you move from one chord to the next in a song, move each voice part to the nearest practical tone of the next chord whenever possible.

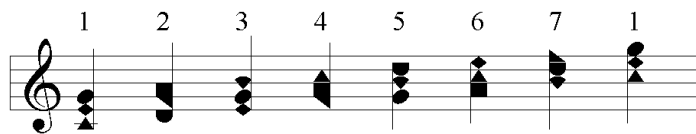
5

Chord Progression using the I, IV & V Chords

Scope: Common tones are introduced and the proper procedure to progress from one chord to the next.

Common (mutual) tones

In the example below, notice that some chords have tones that are common with other chords. Chords whose roots are a second apart (1&2, 2&3, 3&4, 4&5, 5&6, 6&7 and 7&1) have no tones in common. Chords whose roots are a third apart (1&3, 2&4, 3&5, 4&6, 5&7, 6&1 and 7&2) have two tones in common. Chords whose roots are a fourth apart, a fifth apart and a sixth apart all have one tone in common while chords whose roots are a seventh apart have no common tones.



Progression from I to V and V to I

Songs made up of only one type of chord, like the Tonic, would be very boring. Therefore, different chords are used within a song, causing the harmony to change from one type of chord to another. Although in the strict sense, movement toward the I chord can be called *progression* and movement away from the I chord can be called *digression*, we will not be making that distinction for a while. Progression in our context for the moment will be movement from one type of chord to the next.

When comparing the **I** chord (Tonic) with the **V** chord (Dominant), notice that the two chords share a common tone, that tone being Sol, as seen in measure one below.



Also notice the interval distance between the other tones of the two chords. The Do in the Tonic chord is a minor second away from the Ti in the Dominant and a major second away from the Re in the Dominant, see measure two. The Mi in the Tonic is a major second away from the Re in the Dominant, see measure three.

Whenever the **V** follows the **I**, the upper part that has the Sol in the **I** chord should retain the Sol in the **V** chord. This is also true when the **I** follows the **V**. In doing this, there will always be one upper voice part that will not be moving in pitch.

Chapter 5 - Chord Progression using the I, IV & V Chords

When one upper voice part stays on the same pitch when moving to another type of chord, the other parts will have an accurate reference as they move to their new pitch. This is called retaining the common tone. In the following example, the soprano retains the common tone in measures 4 & 8. The alto retains the common tone in measures 3, 5 & 7. The tenor retains the common tone in measures 1, 2 & 6. The common tones in this and other examples will be denoted with a tie. Retaining a common tone in the bass does not accomplish the same objective as retaining a common tone in an upper part. The bass doesn't provide a good reference for upper parts, especially when the bass is singing a low tone.

The musical score consists of two systems, each with a treble and bass staff. The first system shows measures 1 through 4. The second system shows measures 5 through 8. The key signature has one sharp (F#). The progression is I (C major), IV (F# major), V (C major), and I (C major). Common tones are indicated by ties: Soprano (C4 in measures 4 and 8), Alto (G4 in measures 3, 5, and 7), and Tenor (C4 in measures 1, 2, and 6). The bass part provides a harmonic foundation with various chord voicings.

Rule 7 - *Movement between chords that share a common tone should retain that common tone in the same upper voice part and move the other parts to the nearest practical tone.*

In the following exercise, write in the harmony using the Tonic and Dominant chords only. Use only one kind of chord in each measure. The exercise will be easier if you decide which chord to use in each measure first, write in the bass part for the whole exercise, then fill in the other two parts.

The exercise is in 2/2 time and consists of two staves: a treble staff and a bass staff. The treble staff contains a melodic line with notes and rests in measures 1 through 8, with measure numbers 1-8 written above. The bass staff is empty, intended for the student to write the bass line. The exercise is designed to practice writing harmony using only Tonic and Dominant chords.

Progression from I to IV and IV to I

When comparing the **I** chord and the **IV** chord (Sub-Dominant), notice that the two chords also have a common tone, that tone being Do, see measure one. Also notice that Mi in the Tonic is a minor 2nd from the Fa in the Sub-Dominant and wants to move there, see measure two. The Sol in the Tonic can move easily to either the La or the Fa in the Sub-Dominant, see measure three.



Again, the common tone should be retained in one upper voice part between adjacent chords. Notice that the common tone is retained in the soprano in measures 1 & 4, in the alto in measures 2 & 5, and in the tenor in measures 3 & 6.



In the following exercise, the soprano is given. You are to write in the other three parts, starting with the bass then adding the alto and tenor. Whenever a chord is marked with a **I**, **IV** or **V**, be sure to use the chord marked.

1 2 3 4 5 6 7 8

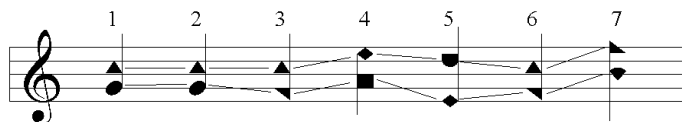
I V I I IV I V I

9 10 11 12 13 14 15 16

I IV I I IV I V I

Part movement

As parts move from one chord to the next, they relate to one another in terms of relative motion. In the following example, intervals 1 and 2 show no motion. Neither of the parts move.



In the example above, intervals 2 and 3 display *oblique motion*. The soprano part does not move but the alto part moves.

Also in the example above, intervals 3 and 4 display *parallel motion*. In interval 3, the two parts are a perfect fifth apart and both parts move upward to a perfect fifth interval.

Warning - Two forms of parallel motion warrant a caution. *Parallel octaves* and *parallel fifths* of the same size should be avoided. Parallel octaves show lazy part writing and rarely produce the best harmony. Parallel perfect fifths leave the feeling of singing in two keys. Much of the time, leaving out the 3rd of the first chord causes a parallel fifth in the movement to the next chord, a mistake seen in many of the newer songs.

In the above example, movement from 6 to 7 is also parallel motion, but only interval 6 is a perfect fifth (3 ½ steps). Interval 7 is only 3 steps. Therefore this motion would be permitted.

In the last example, intervals 4 and 5 show *similar motion*. In interval 4, the two parts are a fifth apart but in interval 5 they are a seventh apart. They have motion in the same direction.

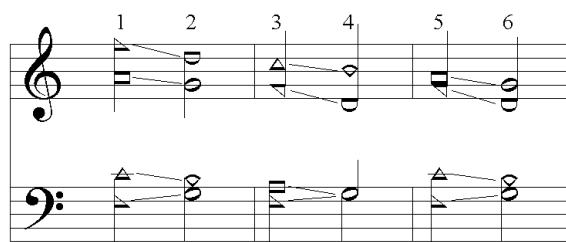
Also in the last example, intervals 5 and 6 display *contrary motion*. The two parts have both moved but have done so in different directions, the soprano downward and the alto upward.

Progression from IV to V

Now compare the IV chord to the V chord. Notice that the two chords share no common tones that can act as a reference in the new chord.



The accepted method of progressing from the IV to the V is by the use of contrary motion, where the upper parts move contrary to the root. The bass will be moving from the Fa to Sol. While it is not possible to always write the harmony so that all the upper parts move contrary to the bass, the more that do move contrary to the bass the better.



Rule 8 - When connecting chords with no common tone, move the upper parts in contrary motion to the bass.

Movement from V to IV is discouraged because of the displeasing impressing left with the singer. It does have application but not in usual progression.

Rule 9 - Do not progress from the V to the IV.

In the next exercise the soprano is given. You are to supply the other three voice parts. Again start by writing in the bass of a chord then write in the alto and tenor. You can even write in all the bass at once but don't write any other part all at once, i.e. writing in all the tenor then going back and doing the alto. When a specific chord is called for, make sure you use that chord and if possible, use the same chord for the entire measure.

Exercise 1-8: Musical notation for measures 1-8. The top staff is a treble clef in 2/4 time with a soprano line. The bottom staff is a bass clef. Chord symbols I, IV, I, V, I, IV, IV, V are written below the treble staff. Measure numbers 1-8 are above the treble staff.

Exercise 9-16: Musical notation for measures 9-16. The top staff is a treble clef in 2/4 time with a soprano line. The bottom staff is a bass clef. Chord symbols I, IV, I, V, I, IV, V, I are written below the treble staff. Measure numbers 9-16 are above the treble staff.

Summary:

Rule 7 - When connecting chords that share a common tone, retain that common tone in the same upper voice part and move the other tones to the nearest possible tone.

Rule 8 - When connecting chords without a common tone, move the upper parts in contrary motion to the bass.

Rule 9 - Do not progress from the V to the IV.

Additional notes

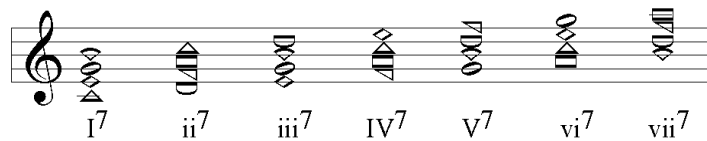
6

Dominant Seventh Chord (V⁷)

Scope: Seventh chords are introduced and the use of the Dominant Seventh is covered.

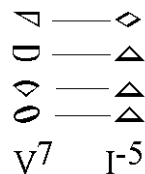
Seventh chords

So far, all the chords we have explored have three tones: the root, the third and the fifth. Chords can have more tones, however. Adding the seventh to any chord will give the chord a dissonant sound, one that sounds thickened and non-conclusive. Since they are chords with four tones, they are called *Tetrads*. Adding the seventh to the chords of the Major Diatonic Scale produces the following chords.



Of these chords, only one is of importance in this study at this point, the *Dominant Seventh* (○◊◻◻). This chord is so important that it is used as the next to last chord in most of the songs in our songbooks. The Tonic Chord is the basic chord of the Major Diatonic Scale, the most conclusive and therefore the best chord on which to end a song. Having a dissonant chord like the Dominant Seventh directly before it will cause the song to feel even more finalized when the Tonic is reached.

Resolution is the process of parts moving from a chord with a dissonant sound to one of consonant sound. The following example shows the tones of the V⁷ and the movement of each tone to the tones of the I. Since the parts should move to the nearest tone, Re (◻) will move down a full-step to Do (△), Fa (◻) will move down a half-step to Mi (◊), Ti (◊) will move up a half-step to Do (△), and of course the Sol (○) in the bass will move to Do (△) since the root stays in the bass. There is no tone in the V⁷ that leads to the Sol of the I, therefore the I will be missing it's 5th.



Chapter 6 - Dominant Seventh Chord (V⁷)

The following illustration shows how the Dominant seventh (V⁷) is actually used. Pay close attention to which tones of the V⁷ are used and which tones of the following I are used. When the V⁷ has all four tones (is full) and the root in the bass, the common tone can not be retained in one of the parts. Notice that the Tonic does not have a fifth. This will always be true if the V⁷ is full (all four tones).

Rule 10 - When a I follows a complete V⁷, the I will not have a fifth.

If one of the middle tones is left out of the V⁷ (⊖ or ⊙), then the following I can be full (all three tones) and there can be a common tone retained in one of the upper parts.

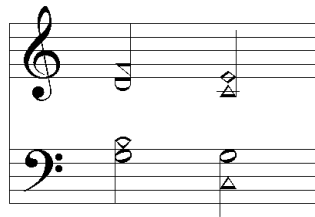
▽ — ◇	▽ — ◇
◇ — △	⊖ — △
○ — ○	○ — ○
○ — △	○ — △
V ⁷ -5 I	V ⁷ -3 I

Notice in the following example that there is a common tone between the incomplete V⁷ and the I. Either the third or the fifth can be left out, but the chord is stronger if the fifth is left out, keeping the third.

Rule 11 - When a complete I chord is preceded by a V⁷, the V⁷ will be incomplete.

Chapter 6 - Dominant Seventh Chord (V⁷)

One other resolution of the V⁷ to I can be found on church music allowing for both the V⁷ and the I to be full. Ti is allowed to move down to Sol instead of its natural movement to Do.



Rule 12 – *Ti may descent to Sol when both the V⁷ and I are full.*

It is suggested that this last resolution of the V⁷ to I only be used when placement of voice parts of the two chords warrant its use. The resolution is weak because of the Ti wanting to move to Do.

In the following exercise, harmonize the melody using the chords indicated. Change chords at the “c” sign and use the V⁷ where there is a “7”. Start by writing in the chord you will use for each note. You will notice that you will need to change chords inside some of the measures. Try to do so only at a strong beat. Next, fill in the bass, then fill in the other parts. It might be a good idea to review all the rules presented so far before doing the exercise.

Summary:

Rule 10 - *When preceding a I by a complete V⁷, the I will not have a fifth.*

Rule 11 - *When preceding a complete I chord by a V⁷, the V⁷ will be incomplete.*

Rule 12 - *Ti may descent to Sol when both the V⁷ and the I are full.*

Additional notes

7

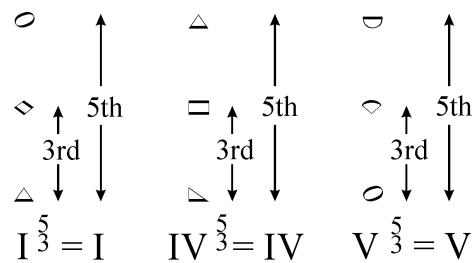
Chord Inversions

Scope: *Inversions, usage of chords with tones other than the root of the chord in the bass is introduced.*

So far, Rule 2, when possible, place the root in the bass, has been used without exception. Chords are stronger whenever the root of the chord is in the bass. However, this does not mean that the chord must always be written that way. There are many times that the third or the fifth, even the seventh of the Dominant, can be placed in the bass to keep the bass from moving up or down so often or so far. This can make the bass more melodic, but keep in mind that the harmony will be weakened and increases the likelihood of parts not singing the correct tones.

Figured Bass

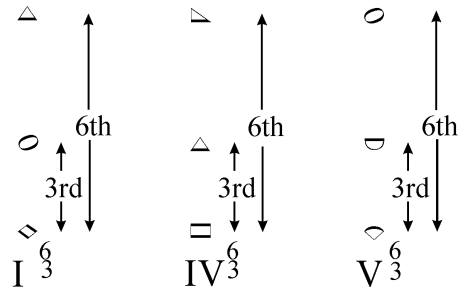
To describe the inversion of a chord, a form of notation called *figured bass* is used. When any of the chords discussed up to this point are written with their root in the bass as shown below, the other tones in the chord are tones that are a 3rd and 5th above the bass. In these illustrations, which voice parts the upper two tones are placed in is not important. The 3rd member of the chord can be in either the soprano, alto or tenor and the 5th member of the chord can be in either the soprano, alto or tenor. The main objective of this form of notation is to show which member of the chord is in the bass, thus “figured bass”.



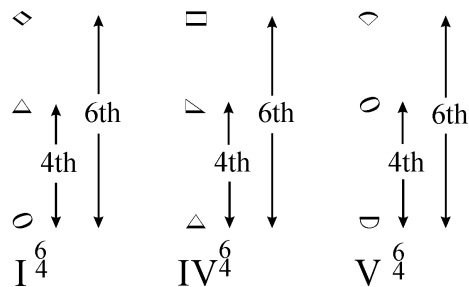
When these chords that have their root in the bass are described by using figured bass notation, the Tonic (**I**) is called the "Tonic Five Three", indicating that there is a tone a 5th above and a tone a 3rd above the bass. The Sub-dominant (**IV**) with the root in the bass is called the "Sub-dominant Five Three" and the Dominant (**V**) is called the "Dominant Five Three". This is most often shortened to just "5", as in the "Dominant 5" or no superscript numbers are show at all.

Inverted chords

Inverting a chord means putting a tone other than the root in the bass. For instance, in the following example the 3rd of the I, IV and V chords are shown in the bass. This is called the *first inversion* of a chord. Notice that in each chord there is a tone a 3rd above the bass tone and a tone a 6th above the bass tone. The figured bass for the 1st inversion is therefore "Six Three". This is most often shortened to just "6", as in "Tonic 6".



The *second inversion* places the fifth of the chord in the bass. Notice in the example below that with the fifth in the bass, there is a tone a fourth above the bass and a tone a sixth above the bass. Therefore, the 2nd inversion is called the "Six Four", as in "Tonic Six Four".



Therefore, there are three *forms* of each of the chords: the direct form (root in the bass), the first inverted form with the 3rd in the bass and the second inverted form with the 5th in the bass.

In the exercise below write below each chord the number and figured bass for each chord.

Doubling

Until the last exercise, the root of a chord has always been doubled, but when inversions are used, sometimes it is best to double other tones.

Rule 13 - When a triad is in first inversion double the soprano.

Even though this is the rule, it is not recommended that the 3rd of the V or V⁷ (◁) be doubled.

Ti wants to move to Do in both voice parts, the bass and the upper part in which it is doubled. If that occurs, the two parts are moving in parallel octaves, which should not happen (see warning in Chapter 5). **Therefore the 1st inversion of the V or V⁷ should not be used when Ti is in the soprano.**

Examples of the first inversion are shown below. Notice that chord #5 has the Ti doubled and is therefore not a good example of how doubling should occur.

Rule 14 - When a triad is in second inversion double the bass.

Examples of the second inversion are shown below.

Expanded Rules of Doubling

There are times that the rules that have been given so far cannot be used because of the pitch position of some of the parts. The following guidelines should be used whenever previous rules cannot be used. The rules that have been given so far are also given for comparison.

Root in Bass

1. Double the root if at all possible
2. Double the 5th when necessary
3. Doubling the 3rd is not recommended
4. Never double Ti

Third in Bass

1. Double the Soprano if at all possible except when Ti is in the Soprano
2. Double the root when necessary
3. Doubling the 3rd not recommended unless the 3rd is in the Soprano of the I or IV.

Fifth in Bass

1. Double the Bass if at all possible
2. Doubling the 3rd is not recommended
3. Never double Ti

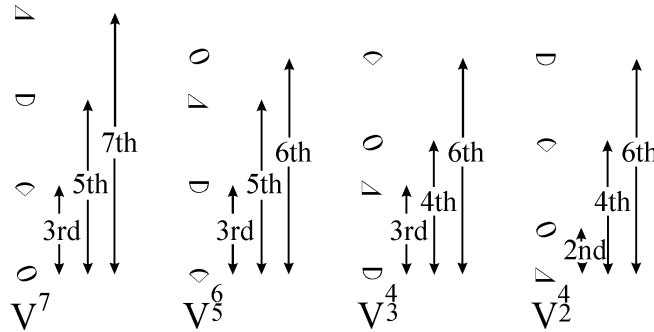
Inversions of the V⁷

Seventh chords can also be inverted. All share the same characteristics as the V⁷. The seventh chords have four forms (root in the bass, 1st inversion, 2nd inversion and 3rd inversion) and can be found in four positions (the root in the soprano, the 3rd in the soprano, the 5th in the soprano and the 7th in the soprano). The following shows the available positions and forms of the inversions.

1 2 3 4 5 6 7 8 9 10

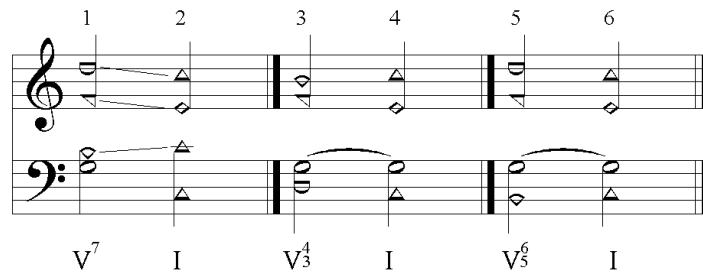
Root in Bass 1st Inversion 2nd Inversion 3rd Inversion

The next illustration shows the figured bass for the V^7 . Now that there are three intervals involved, there are three numbers used to describe the forms of the chord. The root form (Sol in the bass) could be called the Dominant Seven Five Three but is shortened to "Dominant 7". The 1st inversion (Ti in the bass) could be called the Dominant Six Five Three but is shortened to "Dominant Six Five". The 2nd inversion (Re in the bass) could be called the Dominant Six Four Three but is shortened to "Dominant Four Three". The 3rd inversion (Fa in the bass) could be called the Dominant Six Four Two but is shortened to "Dominant Four Two".

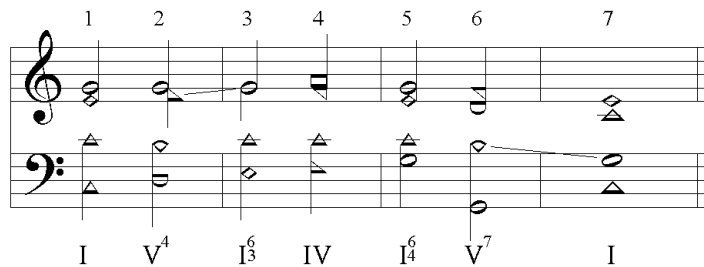


Rule 15 - If the I follows a V^7 in non-inverted form, either the I must leave out the Sol or the V^7 must leave out the Re or Ti. This is illustrated in the example below between chords #1 and #2. The fact that the soprano only moves down a major second, that the alto only moves down a minor second and the tenor only moves up a minor second, is almost as good as have common tones

Rule 16 - If the V^7 is inverted, then both chords should be full. This is the case since there is a common tone that can be used. This is the case between chords #3 and #4 and between chords #5 and #6.



There are two exceptions to the normal V^7 to I progression. Ti normally leads to Do. However when the Do to which the Ti would lead is taken by the next part above, then Ti can descend to Sol as found between chords #6 and #7. Also, Fa normally leads to Mi, but can ascend to Sol when Mi has been taken by another part as illustrated between chords #2 and #3.



Harmonize the following exercise using the rules presented so far. It is suggested that you write down the possible chords you can use for each note given in the melody first, then use the suggested inversion to smooth out the bass line.

The image shows two musical exercises for harmonization. Each exercise consists of a treble clef staff with a melody and a bass clef staff for accompaniment. The first exercise has 5 measures with notes and figured bass numbers: 1 (C4), 2 (D4), 6 (E4), 4/2 (F4), 3 6 (G4), 4/3 (A4), 6 (B4), 4 (C5), 6 (D5), 6/4 (E5), and 5 (F5). The second exercise has 10 measures with notes and figured bass numbers: 6 (C4), 4/2 (D4), 7 6 (E4), 4/3 (F4), 6/5 (G4), 8 (A4), 6/4 (B4), 9 IV (C5), 6/4 (D5), 7 (E5), and 10 (F5).

Summary:

Rule 13 - When a triad is in first inversion double the soprano.

Rule 14 - When a triad is in second inversion double the bass.

Rule 15 - If the I follows a V^7 in non-inverted form, either the I must leave out the Sol or the V^7 must leave out the Re or Ti.

Rule 16 - If the V^7 is inverted, then both chords should be full.

8

Passing & Neighboring Tones

Scope: This chapter covers non chordal tones used in transition between chords of the same kind.

Passing Tones

Many times melodies move a degree at a time. This could cause the harmony to change from chord to chord. Not only does this cause a lot of movement in the bass if the root is always in the bass, but this also causes problems in following the rules as presented so far. Examine the melody below. The first measure would have harmony of **I** chords for notes 1 and 3 but a **V** chord for note 2 and either a **IV** or **V⁷** for note 4. The second measure would have either a **I** or **V** chord for note 5.

In the exercise below, go ahead and harmonize the given melody with the rules you have so far. Don't worry about the chord transition across the heavy measure bars.

It would be much better if all of the first two measures could be Tonic. Notice in the example above that chords 6 through 10 would lend themselves to the **IV** chord and notes 11 through 15 to the **V** chord.

Most times, when the melody is moving a degree at a time, problems like these can be eliminated by the use of *passing tones*. Passing tones are approached and left by single degrees in the same direction. They pass from a chord, through a passing tone, then back to that same chord. The example below shows the passing tones of the Tonic Chord. Re is the passing tone between Do and Mi, measures 1 & 2. Fa is the passing tone between Mi and Sol, measures 3 & 4. Between Sol and Do, two passing tones can but don't have to be used. La and Ti are the passing tones between Sol and Do, measures 5 & 6. Since passing tones are not members of the chord, they are dissonant and should be used only on unaccented beats or between beats. Usually, one or two voice parts do not move, preserving a reference for the other singers. The movement can be either upward or downward.

Chapter 8 - Passing & Neighboring Tones

In the example below, chords 1, 3 and 5 are different positions of the Tonic Chord. Chord 2 employs the passing tones of the Tonic in the Soprano and Tenor. Chord 4 employs the passing tones of the Tonic in the Soprano and Alto. Also, notice that the Bass does not move. The passing tones are employed on unaccented beats. The second example shows the melody in chord 7 moving through passing tones in 8 and 9 on its way to chord 10. There may be times that only one of these two passing tones are actually used.

The first example shows a sequence of five chords in 4/4 time. Chords 1, 3, and 5 are tonic chords in different positions. Chord 2 uses passing tones in the soprano and tenor parts. Chord 4 uses passing tones in the soprano and alto parts. The bass part remains stationary. The second example shows a melody in 2/4 time moving from chord 7 through passing tones in measures 8 and 9 to reach chord 10. The bass part also remains stationary.

The example below shows the passing tones of the IV chord. Sol is the passing tone between Fa and La, measures 1 & 2. Ti is the passing tone between La and Do, measures 3 & 4. Re and Mi are the passing tones between Do and Fa, measures 5 & 6.

A single melodic line in 4/4 time showing the progression of the IV chord. The notes are Fa, La, Sol, La, Do, Ti, Do, Re, Mi, Fa. The passing tones Sol, Ti, Re, and Mi are clearly marked between the main chord tones.

In the illustration below, chords 6, 8 and 10 are different positions of the Sub-dominant Chord. Chord 7 uses the passing tones of the Sub-dominant in the Soprano and Tenor. Chord 9 uses the passing tones of the Sub-dominant in the Soprano and Alto. Again, the Bass does not move.

The illustration shows a sequence of five chords in 4/4 time. Chords 6, 8, and 10 are sub-dominant chords in different positions. Chord 7 uses passing tones in the soprano and tenor parts. Chord 9 uses passing tones in the soprano and alto parts. The bass part remains stationary.

The example below shows the passing tones of the V chord. La is the passing tone between Sol and Ti, measures 1 & 2. Do is the passing tone between Ti and Re, measures 3 & 4. Mi and Fa are the passing tones between Re and Sol, measures 5 & 6.

A single melodic line in 4/4 time showing the progression of the V chord. The notes are Sol, La, Ti, Do, Ti, Re, Mi, Fa, Sol. The passing tones La, Do, Mi, and Fa are clearly marked between the main chord tones.

Chapter 8 - Passing & Neighboring Tones

In the example below, chords 11, 13 and 15 are different positions of the Dominant Chord. Chord 12 employs the passing tones of the Dominant in the Soprano and Tenor. Chord 14 uses the passing tones of the Dominant in the Soprano and Alto. The Bass is again used as the reference part and does not move.

11 12 13 14 15

In the exercise below, write the harmony to the given melody using passing tones when indicated.

1 2 3 4 5

p p 6 p p V p

6 7 8 9 10

p 7 6/4 p IV 6/4

Chapter 8 - Passing & Neighboring Tones

The next example shows how passing tones can be used in the Bass. There are two passing tones in chords 2, 7 and 14 but only one passing tone is found in chords 4, 9 and 12 and they are in the bass.

Musical notation showing a bass line in 7/4 time, numbered 1 through 15. The notation includes various notes and rests, illustrating passing tones and neighboring tones.

Neighboring tones

Lower neighboring tones

Neighboring tones are found between two tones of the same pitch and are a whole step up or a half step down from the two tones. Neighboring tones that move downward are called *accessory tones* or *lower neighboring tones* (LN). They may be chromatic tones or the diatonic tones Fa and Ti. Notice in the first two measures of the next three examples that two upper parts contain lower neighboring tones and move parallel with each other. The two remaining parts contain the root of the chord. In the last measure of each of the examples, all three upper parts contain LN tones.

Tonic lower neighboring tones:

Musical notation showing three measures of Tonic lower neighboring tones in 4/4 time. The notation includes upper parts with LN tones and lower parts with the root of the chord.

Sub-dominant lower neighboring tones:

Musical notation showing three measures of Sub-dominant lower neighboring tones in 4/4 time. The notation includes upper parts with LN tones and lower parts with the root of the chord.

Dominant lower neighboring tones:

Neighboring tones can be used on accented or unaccented beats, but their use on accented beats is discouraged because they are dissonant. Dissonance on an accented beat fails to establish the chord in the mind of the singer. This is usually never a problem since melodies rarely place neighboring tones on accented beats.

In the exercise below, harmonize the given melody. Make sure you use the chords, inversions and neighboring tones where shown.

Upper neighboring tones

An example of a neighboring tone that moves upward is found in the following example. These are called *upper neighboring tones* (UN). Unlike lower neighboring tones which move one half step to the a neighboring tone and back, upper neighboring tones move upward to the next diatonic tone of the scale. By using an upper neighboring tone, the harmony can stay on the same kind of chord. As with all neighboring tones, they should only be used on unaccented beats or between beats. Measure 1 shows an upper neighboring tone while measure 2 shows a **IV** chord in 2nd inversion. Both have the same effect.

Indirect resolution of neighboring tones

Two examples of *indirect resolution of neighboring tones*, sometimes called *changing tones*, are shown below. The neighboring tones resolve by way of either other neighboring tones (upper neighboring tones) as in measure 2 of the example below or by way of another chord as in measure 4.

Summary: Use passing tones when the melody moves in the same direction stepwise for two tones. Use neighboring tones when the melody moves down by a half step or up a whole step and returns.

Additional Exercises

In the following exercises on this page, analyze the chord structure by writing in each chord the numeric name and figured bass of the chord. Also mark the common tones, contrary motion and neighboring tones.

Exercise 1: Treble clef, 4/4 time, key of B-flat major. Treble clef has five numbered measures of chords. Bass clef has corresponding chords.

Exercise 2: Treble clef, 3/8 time, key of D major. Treble clef has four numbered measures of chords. Bass clef has corresponding chords.

Exercise 3: Treble clef, 4/4 time, key of B-flat major. Treble clef has five numbered measures of chords. Bass clef has corresponding chords.

Exercise 4: Treble clef, 6/4 time, key of B-flat major. Treble clef has four numbered measures of chords. Bass clef has corresponding chords.

Exercise 5: Treble clef, 3/4 time, key of B-flat major. Treble clef has five numbered measures of chords. Bass clef has corresponding chords.

In the following exercise, analyze the chord structure in the chorus. Then write the harmony of the stanza using harmony that will match the chorus.

Here We Are But Straying Pilgrims

Words: I. N. Carmen

Music: W. O. Perkins

1. Here we are but stray-ing pil-grims; Here our path is of-ten dim;

But to cheer us on our jour-ney, Still we sing this way-side hymn:

Chorus

Yon-der o-ver the roll-ing riv-er, Where the shin-ing man-sions rise,

Soon will be our homes for-ev-er, And the smile of the

bles-sed Giv-er Glad-dens all our long-ing eyes.

Appendix 1

Part writing

Although the purpose of this book is not to teach song writing or composition, the following guidelines are given to help you develop some early skills. These guidelines assume that the soprano part (the melody) has been written.

- I. Make sure that the soprano is written in the proper key.
 - A. Place the highest and lowest soprano notes equidistant from B.
 1. If most of the soprano is above C, rewrite the soprano in a lower key.
 2. If most of the soprano is below G, rewrite the soprano in a higher key.
 - B. If the melody is yours, rewriting some notes should be considered to keep the soprano within good voice range. The idea is to make sure it can be sung by those whom you intend to sing it.

- II. Determine the chord for each note.

- A. Examine each note and write underneath it all the chords that contain that note. Use the following chart for help with diatonic tones.

Do	Re	Mi	Fa	Sol	La	Ti
I	V	I	IV	I	IV	V
IV	V7		V7	V		
ii ⁷	ii	iii	ii	iii	vi	vii ^o
vi	I ⁹	I ⁷	V ⁹	I ⁷	V ⁹	I ⁷
I ⁹	vii ^o	I ⁹	ii ⁷	I ⁹	ii	iii
vi	vii ^o		ii ⁷			

- B. Find notes that can be used as passing or accessory tones and mark them.
- C. When possible, the first chord in a measure should be used throughout the measure.
 1. Chords can change on the accented beats.
 2. Movement from V to V7 or V7 to V is not considered a chord change.
- D. Write the bass part.
 1. You can do this a section at a time or do the whole song.
 2. The bass should help the melody emphasize the lyrics.
 3. Make sure the bass is within its pitch range.
 - a. Try not to have whole measures with the bass below A on the first space.
 - b. Try not to have whole measures with the bass above A above the staff.
 4. Consider inversions to smooth the bass.
- E. Write the alto and tenor parts.
 1. Complete each chord individually.
 2. Check each measure for rule violations.

- III. Make sure the overall sound is what you want.

- A. Check each part.
 1. Each part should flow in small moves and not jump around.
 2. Sing each part to find hard to sing notes.
 3. Analyze to find better solutions.
 4. Don't give up with difficult parts but set the music aside and come back to it.
 5. Write several versions and compare them for final results.
- B. Never be so pleased with your work that you are not willing to change it.
 1. Wait to make the final draft until after it has been sung by a group.
 2. Solicit comments from those who will tell you the **truth** about your work.

Appendix 2

Rules for Harmony

Part Placement

1. Make sure the tones for each voice part fall within the range for that voice part.
2. Adjacent upper parts should be no more than an octave apart.
3. Voice parts should not be crossed.

Doubling

Root in Bass

1. Double the root if at all possible.
2. Double the 5th when necessary.
3. Doubling the 3rd is not recommended.
4. Never double Ti.

Third in Bass

1. Double the Soprano if at all possible except when Ti is in the Soprano.
2. Double the root when necessary.
3. Doubling the 3rd is not recommended unless the 3rd is in the Soprano of the I or IV.

Fifth in Bass

1. Double the Bass if at all possible.
2. Doubling the 3rd is not recommended.
3. Never double Ti.

Seventh in Bass

1. The chord should be full.
2. Double the seventh leaving out the fifth or third.
3. Double the root leaving out the fifth or third.
4. Never double the fifth.

Progression

1. When moving from one chord to the next in a song, move each voice part to the nearest practical tone of the next chord whenever possible.
2. When connecting chords that share a common tone, retain that common tone in the same voice part and move the other tones to the nearest possible tone.
3. When connecting chords have no common tone, move the upper parts in contrary motion to the bass.
4. Do not progress from the V to the IV.
5. When preceding a I by a complete V7, the I will not have a fifth.
6. When preceding a complete I chord by a V7, the V7 will be incomplete.
7. If the I follows a V7 in non-inverted form, either the I must leave out the So or the V7 must leave out the Re or Ti.
8. If the I follows a V7 in inverted form, then both chords should be full.

Appendix 3

Chord Spellings without Shaped Notes

Even without shaped notes, there are still seven basic chords. However it is much more difficult to recognize whether they are the I, ii, iii, IV, V, vi, or vii without the shapes to help us.

The seven chords are spelled:

Spelling	Root	3rd	5th
C E G	C	E	G
D F A	D	F	A
E G B	E	G	B
F A C	F	A	C
G B D	G	B	D
A C E	A	C	E
B D F	B	D	F

These chords can be divided into three groups: major, minor and diminished.

Group 1 (Major)	Group 2 (Minor)	Group 3 (Diminished)
C E G	D F A	B D F
F A C	D G B	
G B D	A C E	

The group 1 chords will always be major when each letter of the chord has the same accidental.

C E G	C# E# G#	Cb Eb Gb	Cbb Ebb Gbb	Cx Ex Gx
F A C	F# A# C#	Fb Ab Cb	Fbb Abb Cbb	Fx Ax Cx
G B D	G# B# D#	Gb Bb Db	Gbb Bbb Dbb	Gx Bx Dx

The group 1 chords will be minor when their 3rd is flatted.

C Eb G	C# E G#	Cb Ebb Gb	Cx E# Gx
F Ab C	F# A C#	Fb Abb Cb	Fx A# Cx
G Bb D	G# B D#	Gb Bbb Db	Gx B# Dx

The group 1 chords can be made diminished when both their 3rd and 5th are flatted.

C Eb Gb	C# E G	Cb Ebb Gbb	Cx E# G#
F Ab Cb	F# A C	Fb Abb Cbb	Fx A# C#
G Bb Db	G# B D	Gb Bbb Dbb	Gx B# D#

The group 2 chords will always be minor when each letter of the chord has the same accidental.

D F A	D# F# A#	Db Fb Ab	Dbb Fbb Abb	DX FX AX
E G B	E# G# B#	Eb Gb Bb	Ebb Gbb Bbb	EX GX BX
A C E	A# C# E#	Ab Cb Eb	Abb Cbb Ebb	AX CX EX

The group 2 chords will be major when their 3rd is sharpened.

D F# A	D# FX A#	Db F Ab	Dbb F- Abb
E G# B	E# GX B#	Eb G Bb	Ebb G- Bbb
A C# E	A# CX E#	Ab C Eb	Abb C- Ebb

The group 2 chords can be made diminished by flattening their 5th.

D F Ab	D# F# A	Db Fb Abb	DX FX A#
E G Bb	E# G# B	Eb Gb Bbb	EX GX B#
A C Eb	A# C# E	Ab Cb Ebb	AX CX E#

The group 3 chords will always be diminished when each letter of the chord has the same accidental.

B D F	B# D# F#	Bb Db Fb	Bbb Dbb Fbb	BX DX FX
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The group 3 chords can be made minor by sharpening only its 5th.

B D F#	B# D# FX	Bb Db F	Bbb Dbb Fb
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The group 3 chords will be major when its 3rd and 5th are sharpened.

B D# F#	B# DX FX	Bb D F	Bbb Db Fb
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Appendix 4

Chord Movement

The most pleasing chording movements are in bold.

- I** **I** → **any triad**, $I^{\flat 7} \rightarrow IV$, $I^{\flat 6/7} \rightarrow IV$
 Any triad → I, except I → iii → I
- ii** **ii** → **IV**, **ii** → **V**, **ii** → **vii⁰**, $ii^6 \rightarrow I^{6/4}$, ii → vi
 I → ii, $I^6 \rightarrow ii$, vi → ii, IV → ii
- iii** **iii** → **ii**, **iii** → **IV**, **iii** → **vi**, iii → V
 I → iii, $I^6 \rightarrow iii$, vi → iii → IV
- IV** **IV** → **I**, **IV** → **iii**, **IV** → **V**, **IV** → **vii⁰**
 I → IV, vi → IV, iii → IV
- V** **V** → **I**, V → vi
 I → V, ii → V, IV → V, vi → V
- vi** **vi** → **ii**, **vi** → **IV**, **vi** → **V**, **vi** → **I**, vi → iii → IV
 I → vi, iii → vi, V → vi, $V^7 \rightarrow vi$
- vii⁰** **vii⁰** → **I**, **vii⁰** → **iii**, **vii⁰** → **V⁷**
 I → vii⁰, iii → vii⁰, IV → vii⁰

Often used cadences:

- I → IV → I
 I → IV → V → I
 I → IV → V^7 → I
 I → IV → $I^{6/4}$ → V^7 → I
 I → IV → V → $I^{6/4}$ → V^7 → I
 I → ii → V → I
 I → vi → IV → V → I

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