

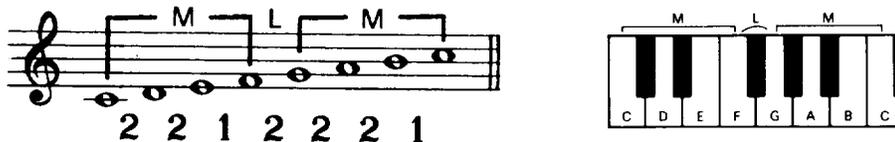
# CHAPTER 6

## MAJOR SCALES

The formula for the major scale is **MLM**.

The scale's half step/whole step interval relationship corresponds, on a keyboard, to a *white key* scale from *C* to *C*.

Scale Formula: **MLM**



*Figure 6.1: C Major Scale.*

### SHARP SCALES

To construct a scale other than *C* major, chromatic signs must be used to maintain the scale formula. The addition of chromatic signs in major scales follows specific, recognizable patterns. When a major scale is constructed on the fifth scale degree ascending in the *C* major scale, the scale formed is a *G major* scale and has one sharp: *F*♯.

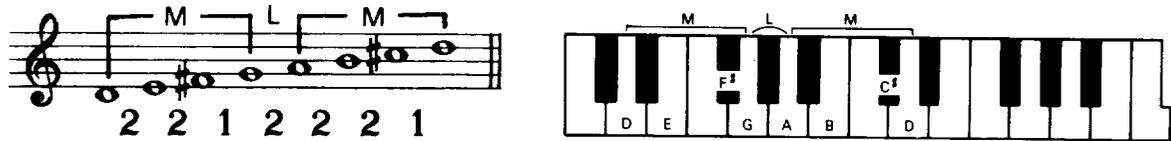
Scale Formula: **MLM**



*Figure 6.2: G Major Scale.*

When a major scale is constructed on the fifth scale degree in the *G* major scale, the scale formed is a *D* major scale and has two sharps: *F*♯ and *C*♯.

Scale Formula: **MLM**



*Figure 6.3: D Major Scale.*

When a major scale is constructed on the fifth scale degree in the *D* major scale, the scale formed is an *A* major scale and has three sharps: *F*♯, *C*♯, and *G*♯.

Scale Formula: **MLM**



*Figure 6.4: A Major Scale.*

The pattern continues through the

*E* major scale with four sharps:  
*F*♯, *C*♯, *G*♯, and *D*♯.

*B* major scale with five sharps:  
*F*♯, *C*♯, *G*♯, *D*♯, and *A*♯.

*F*♯ major scale with six sharps:  
*F*♯, *C*♯, *G*♯, *D*♯, *A*♯, and *E*♯.

*C*♯ major scale with all seven pitch names sharped:  
*F*♯, *C*♯, *G*♯, *D*♯, *A*♯, *E*♯, and *B*♯.

Scale Formula: MLM

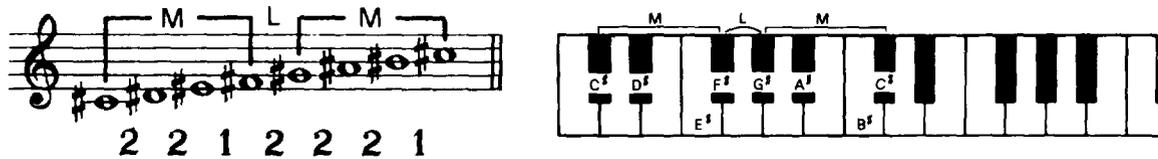


Figure 6.5: *C*♯ Major Scale.

Although a *G*♯ major scale (fifth degree ascending in *C*♯ major) is possible, the scale requires a double sharp and is considered a theoretical scale. Therefore, *C*♯ major (seven sharps) is the last practical sharp scale to be considered, making a total of seven major scales with sharps.

## FLAT SCALES

When a major scale is constructed on the fifth scale degree descending (the fourth degree ascending is the same note) of the *C* major scale, the scale formed is an *F* major scale and has one flat: *B*♭.

Scale Formula: MLM

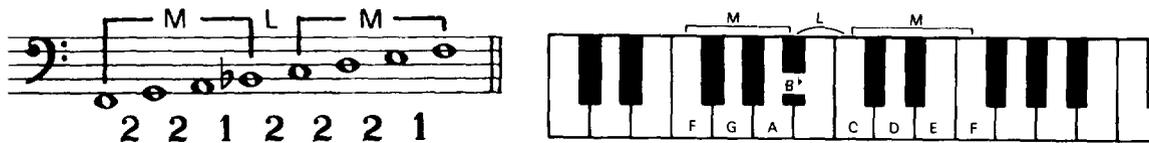


Figure 6.6: *F* Major Scale.

When a major scale is constructed on the fifth degree descending (fourth degree ascending) of the *F* major scale, the scale formed is a *B*♭ major scale and has two flats: *B*♭ and *E*♭.

Scale Formula: MLM

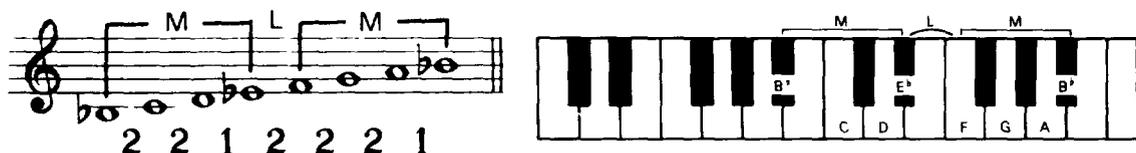


Figure 6.7: *B*♭ Major Scale.

The pattern continues through the

$E^b$  major scale with three flats:  
 $B^b$ ,  $E^b$ , and  $A^b$ .

$A^b$  major scale with four flats:  
 $B^b$ ,  $E^b$ ,  $A^b$ , and  $D^b$ .

$D^b$  major scale with five flats:  
 $B^b$ ,  $E^b$ ,  $A^b$ ,  $D^b$ , and  $G^b$ .

$G^b$  major scale with six flats:  
 $B^b$ ,  $E^b$ ,  $A^b$ ,  $D^b$ ,  $G^b$ , and  $C^b$ .

$C^b$  major scale with all seven pitch names flatted:  
 $B^b$ ,  $E^b$ ,  $A^b$ ,  $D^b$ ,  $G^b$ ,  $C^b$ , and  $F^b$ .

Scale Formula: MLM

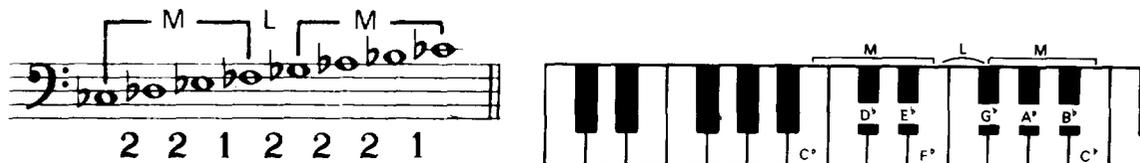


Figure 6.8:  $C^b$  Major Scale.

Although an  $F^b$  major scale (fifth degree descending in  $C^b$  major) is possible, the scale requires a double flat and is considered a theoretical scale. Therefore,  $C^b$  major (seven flats) is the last practical flat scale, making a total of seven major scales with flats.

## KEYS AND MAJOR KEY SIGNATURES

In most music, one pitch becomes more important than any of the other pitches in motion around it. This primary pitch to which the other pitches relate is known as the *tonic*. *Key* is the term which refers to interval relationships within a piece of music which establish one pitch as the tonic. A key involves a network of relationships, while a scale is an arranged list of the pitches of a key.

In most music, rather than notating the chromatic signs for each pitch, the chromatic signs are extracted from the scale and placed after a clef sign to indicate the key. This arrangement of chromatic signs is a *key signature*.

The scale of *E* major contains four sharps: *F*♯, *C*♯, *G*♯, and *D*♯ in order of their addition to sharp scales. Arranged as a key signature it is notated:



*Figure 6.9: Key Signature.*

A chromatic sign in a key signature affects all notes of that letter name in all octaves throughout the duration of the key signature unless cancelled within a measure by a different chromatic sign. The key signature is always in effect after a bar line except for a note tied from an altered note in the previous measure.

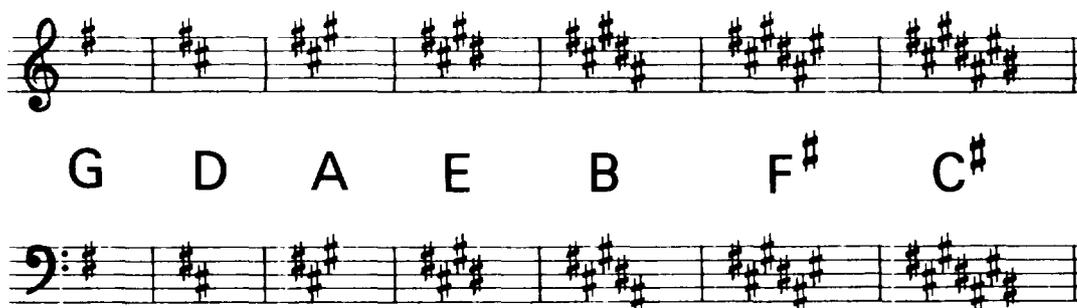
**ORDER OF SHARP MAJOR KEYS:**

<b>G</b>	<b>D</b>	<b>A</b>	<b>E</b>	<b>B</b>	<b>F♯</b>	<b>C♯</b>
1♯	2♯s	3♯s	4♯s	5♯s	6♯s	7♯s

**ORDER OF SHARPS:**

F♯ C♯ G♯ D♯ A♯ E♯ B♯

**SHARP MAJOR KEY SIGNATURES IN TREBLE AND BASS CLEFS:**



*Figure 6.10: Sharp Major Key Signatures.*

**ORDER OF FLAT MAJOR KEYS:**

**F**   **B<sup>b</sup>**   **E<sup>b</sup>**   **A<sup>b</sup>**   **D<sup>b</sup>**   **G<sup>b</sup>**   **C<sup>b</sup>**  
1 b   2 bs   3 bs   4 bs   5 bs   6 bs   7 bs

**ORDER OF FLATS:**

**B<sup>b</sup>**   **E<sup>b</sup>**   **A<sup>b</sup>**   **D<sup>b</sup>**   **G<sup>b</sup>**   **C<sup>b</sup>**   **F<sup>b</sup>**

**FLAT MAJOR KEY SIGNATURES IN TREBLE AND BASS CLEFS:**

The image displays two musical staves. The top staff is in a treble clef and the bottom staff is in a bass clef. Each staff contains seven measures, each representing a different flat major key signature. The notes in each measure are arranged in a sequence that corresponds to the key signature: F major (one flat), B-flat major (two flats), E-flat major (three flats), A-flat major (four flats), D-flat major (five flats), G-flat major (six flats), and C-flat major (seven flats). Below the treble staff, the key signatures are labeled as F, B<sup>b</sup>, E<sup>b</sup>, A<sup>b</sup>, D<sup>b</sup>, G<sup>b</sup>, and C<sup>b</sup>.

*Figure 6.11: Flat Major Key Signatures.*

**CIRCLE OF MAJOR KEYS**

Major keys arranged in a circle starting with *C* and progressing through the sharp keys clockwise and the flat keys counterclockwise, form the *circle of major keys* or the *circle of fifths*.

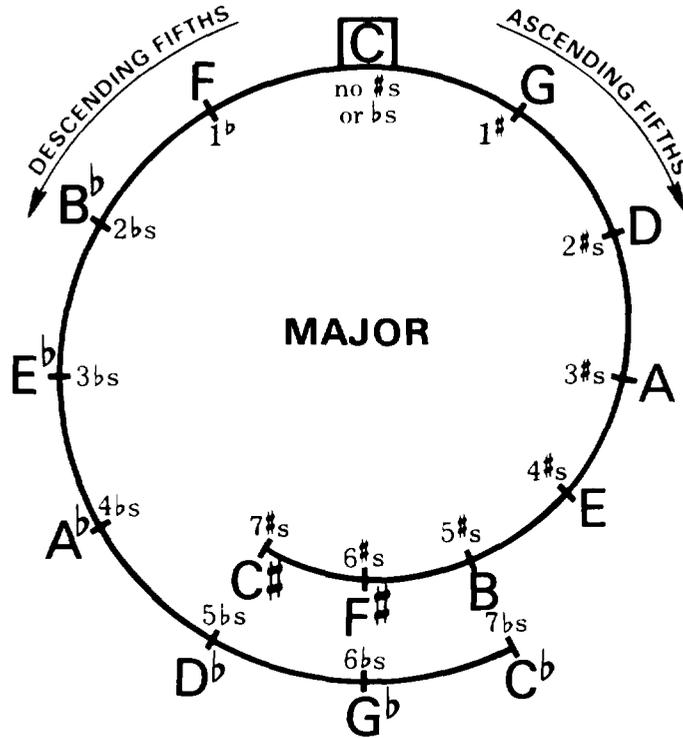


Figure 6.12: Circle of Major Keys.

## ENHARMONIC KEYS

Keys that have different names but sound the same are *enharmonic keys*. The enharmonic major keys are

$B$  major (5  $\sharp$ s) and  $C^b$  major (7  $b$ s)

$F\sharp$  major (6  $\sharp$ s) and  $G^b$  major (6  $b$ s)

$C\sharp$  major (7  $\sharp$ s) and  $D^b$  major (5  $b$ s)

It is possible to start on  $C$  major and travel around the circle of fifths in either direction and return to  $C$  major by using one of the enharmonic keys to continue around the circle.

## NAMES OF SCALE DEGREES

Traditional names are used for identification when reference is made to specific scale degrees. The *tonic* is the first scale degree. The pitch a fifth above the tonic is called the *dominant* and is the fifth scale degree. The pitch a fifth below the tonic is called the *subdominant* (meaning the dominant below the tonic) and is the fourth scale degree. The pitch midway between the tonic and the dominant is called the *mediant* (occurring in the middle) and is the third scale degree. The pitch midway between the tonic and the subdominant is called the *submediant* and is the sixth scale degree. The pitch midway between the tonic and the subdominant is called the *submediant* and is the sixth scale degree. The pitch immediately above the tonic is called the *supertonic* and is the second scale degree. The seventh scale degree is called a *leading tone* or *subtonic* depending on whether it is one half step or two half steps (a whole step) below the tonic.

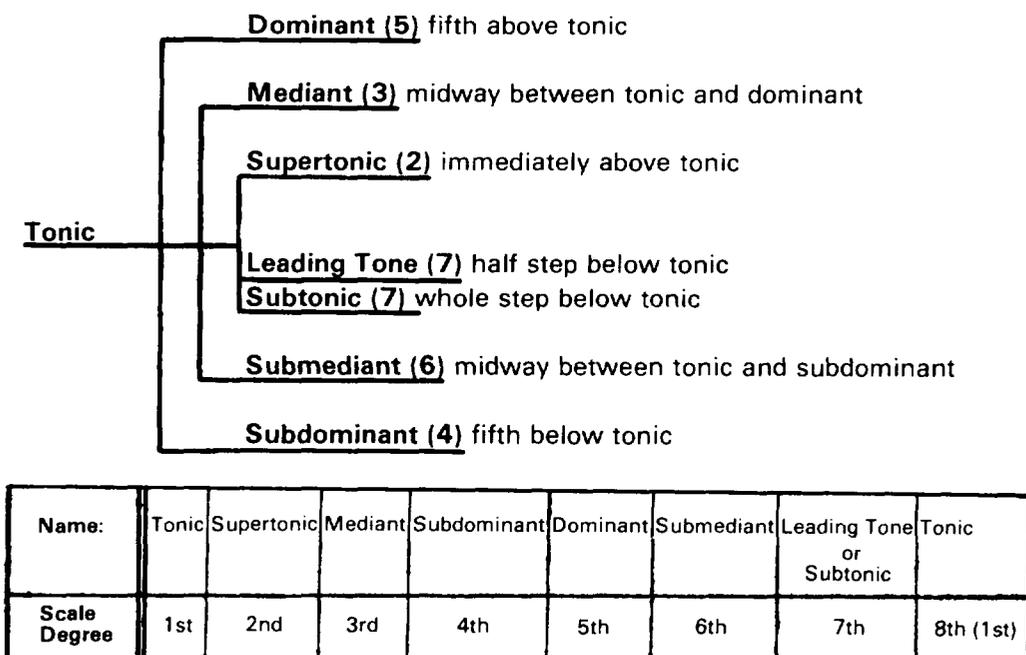


Figure 6.13: Names of Scale Degrees.

## SCALE DEGREE ACTIVITY IN MAJOR

Some scale degrees serve as points of stability or rest; others are more active, ranging from a restless sound to a tendency to move to a specific pitch.

*Stable Tones* show a tendency towards being at rest.

*Active Tones* want to move.

*Tendency Tones* are active tones that exhibit a strong pull toward a specific pitch.

### STABLE

Tonic  
Mediant  
Dominant

### ACTIVE

Supertonic  
Subdominant  
Submediant  
Leading Tone

### Tendency

Subdominant (pulls to Mediant)  
Leading Tone (pulls to Tonic)

*Figure 6.14: Scale Degree Activity in Major.*

Normally, in major keys, the active tones will move to one of the two adjacent notes in the scale. That is, the supertonic will move to the tonic or mediant; the submediant will move to the dominant or leading tone. This does not mean active tones always move in this manner but tend to do so regularly.

Tendency tones tend to move a half step to an adjacent scale degree. The leading tone will most often move to the tonic unless it is part of scalewise motion in the opposite direction. Similarly, the subdominant will most often move to the mediant unless it is part of scalewise motion in the opposite direction. Note that tendency tones pull to stable scale degrees.

