CHAPTER 8

REHARMONIZATION

Chord substitution is a procedure for increasing the harmonic interest of a tune. While the word "substitution" implies a one-for-one exchange of chords, this is not always the case. Since chord substitution may result in a totally new harmonic rhythm, with either more or fewer chords than the original, some theorists feel that **reharmonization** is a better description of the process. In any case, nearly all jazz standards incorporate substitute chords. Some affect the underlying harmonic structure very little, and may be utilized by the soloist without the support of the rhythm section. Others result in a more significant restructuring of the harmonic progression of the tune and require the support of the rhythm section.

Following are some basic but effective chord substitutions that are commonly used by most jazz composers, accompanists and arrangers.

Diatonic Substitution in Tonal Contexts

iiim7 and vim7 may freely substitute for Imaj7; these three functions may interchange because they all act as tonic chords, which define the key area. Moving between tonic chords adds color and variety without a real change in harmonic function.

Cmaj7	**Cmaj7**	becomes:	**Cmaj7**	**Am7**	or	**Cmaj7**	**Em7**
Imaj7	Imaj7		Imaj7	vim7		Imaj7	iiim7

Similarly, iim7 may substitute for IVmaj7. Both iim7 and IVmaj7 contain the stable tonic of the key along with the unstable 4th, functioning as subdominant chords, and may be interchanged.

Fmaj7	**G7**	**Cmaj7**	becomes:	**Dm7**	**G7**	**Cmaj7**
IVmaj7	V7	Imaj7		iim7	V7	Imaj7

Finally, V7 and viim7♭5 contain both the unstable 4th degree and the major 7th (or **leading tone**). These two notes are a tritone apart, causing these chords to be highly unstable. Accordingly, they function as the dominant chords of the key, and may be substituted for one another.

Dm7	**G7**	**Cmaj7**	becomes:	**Dm7**	**Bm7♭5**	**Cmaj7**
iim7	V7	Imaj7		iim7	viim7♭5	Imaj7

Diatonic substitution follows similar practice in minor keys, with chords in the same families substituting for each other.

Substitutions in Modal Contexts

In functional harmony, chords are categorized according to their tendency to resolve in certain ways. This is primarily based upon the presence or absence of specific notes that signal voice-leading expectations within the overall key. Thus Cmaj7 and Am7 are substitutes for one another in the key of C major, despite their different qualities and associated chord scales.

Modal jazz relies upon a completely different method of organizing harmony. Modal chord "progressions" are chosen for their individual colors or sounds, not for their tendency to move to other chords within the overall key. Thus a "diatonic" substitution for a specific chord in modal jazz is not chosen based upon any tendency to resolve in any specific way. Instead, modal substitutions must produce the same sound as the original. This is generally achieved by choosing a chord that utilizes the same scale.

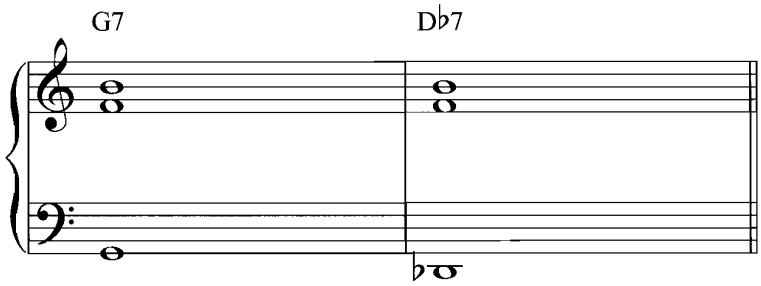
For example, if a tune or section of a tune is based on F Lydian and the chord is Bm7♭5, a possible substitution would be Cmaj7. This is not because ♯ivm7♭5 stands in for Vmaj7 in any functional sense in a Lydian context, but simply because they share the same **chord scale**. Other possibilities would be Dm7, Em7, Fmaj7, G7, and Am7. In short, any chord built on a note in the mode, and containing only the notes of that mode, is a possible substitution.

A serious consideration when using substitute chords in modal harmony is to avoid chords that will suggest functional harmony and destroy the modal quality. For example, if a modal area were in the key of B Locrian, the substitution of Cmaj7 for Bm7♭5 would almost certainly vitiate any sense of modality, effectively forcing the key into C major.

Tritone Substitution

Also referred to as **flat five substitution** (abbreviated **♭5 sub**), this device is used extensively in reharmonization. In it, a dominant chord is replaced or followed with another one whose root is a tritone away. The tritone sub is one of the basic cadences of jazz, both as a two-chord structure, and as a variation of the ii–V–I cadence, which then becomes ii–♭II–I. The interchange is possible because V7 and ♭II7 share the same tritone: the 3rd of one is the ♭7th of the other. (These notes are also the unstable 7th and 4th degrees of the parent key.)

The ♭5 sub for G7—V in the key of C—is D♭7. Either chord resolves easily to Cmaj7.



The tritone substitute chord is often preceded by its relative iim7, which here is a minor 7th chord built on the ♭6th degree of the key.

Dm7	**G7**	**Cmaj7**	becomes:	**Dm7**	**G7**	**A♭m7**	**D♭7**	**Cmaj7**
iim7	V7	Imaj7		iim7	V7	♭vim7	♭II7	Imaj7

A better analytical symbol for ♭II7 is **SubV7/I** (or just **SV7/I** for short), indicating that the V of I is the chord being replaced.

Dm7	**G7**	**A♭m7**	**D♭7**	**Cmaj7**
iim7	V7	♭vim7	**SV7/I**	Imaj7

"SV7/ " may also be followed by any diatonic chord name for which secondary dominants are used, giving us symbols such as SV7/ii, SV7/iii, SV7/IV, etc., indicating tritone subs for all the secondary dominant functions. In C major, SV7/ii is the tritone sub for V7/ii (A7), which is E♭7. SV7/iii is the tritone sub for V7/iii (B7), which is F7, and so on for SubV7/IV, /V, and /vi.

SV7/I resolves chromatically by half step, making a very strong motion to the tonic chord. When diatonic substitutes stand in for either the ii7 or the Imaj7, the result is descending motion by major 3rd.

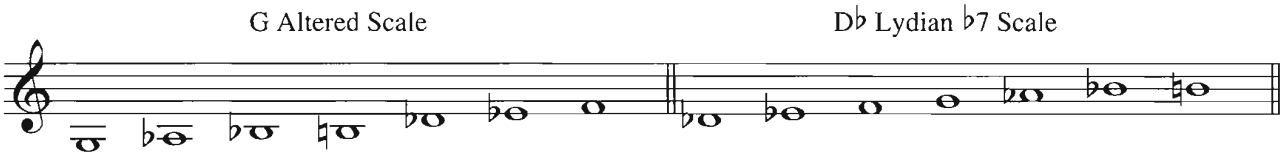
Dm7	**B♭m7**	**Am7**	or	**Fmaj7**	**D♭7**	**Cmaj7**	or	**Fmaj7**	**D♭7**	**Am7**
iim7	SV7/I	vim7		IVmaj7	SV7/I	Imaj7		IVmaj7	SV7/I	vim7

A common use of tritone substitution is demonstrated by the following chord progression, which employs a chromatically descending bass line.

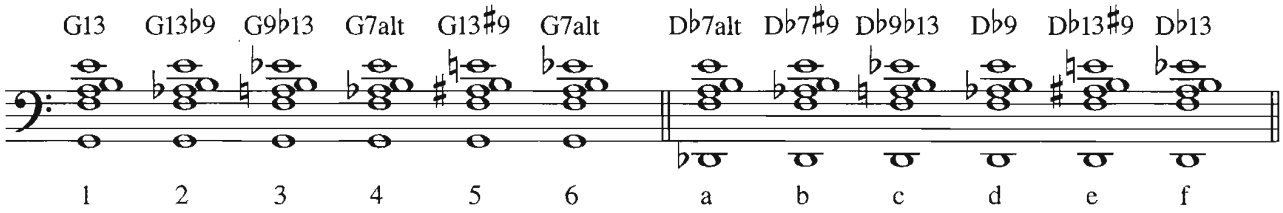
Dm7	**B♭m7**	**Cmaj7**	**Bm7**	**B♭7**	**Am7**	**A♭7**	**Gm7**	**G♭7**	**Fmaj7**
C: iim7	SV7/I	Imaj7	**Am:** iim7	SV7/i	im7		**F:** iim7	SV7/I	Imaj7
					Gm: iim7	SV7/i	im7		

Unaltered SubV7 chords (or those with ♭5/♯11 as their only alteration) always take the **Lydian ♭7** scale, the fourth mode of the melodic minor scale. This scale is also known as **Lydian Dominant**, and occasionally as **Mixolydian ♯11**. Lydian ♭7 is enharmonic to the altered scale of the V7 a tritone away. In other words, the same notes are played over G7alt or D♭7 when resolving to C.

A♭ Melodic Minor, Modes 7 and 4



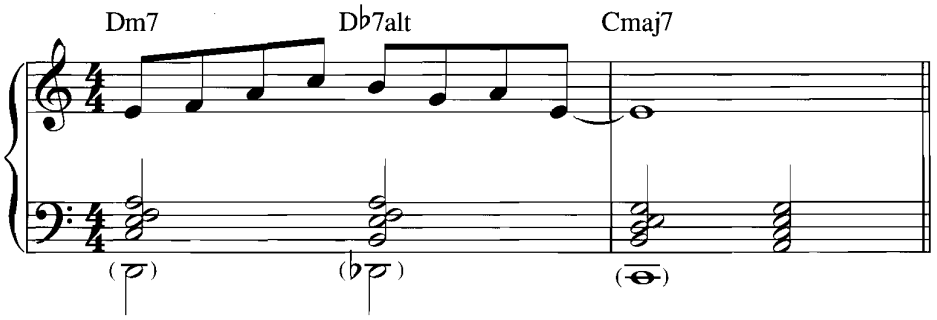
Any voicing that works over V7 will also work over its SubV7. Each chord voicing on the left (1–6) in the following diagram may interchange with the corresponding one on the right (a–f), in alternation or as a substitute.



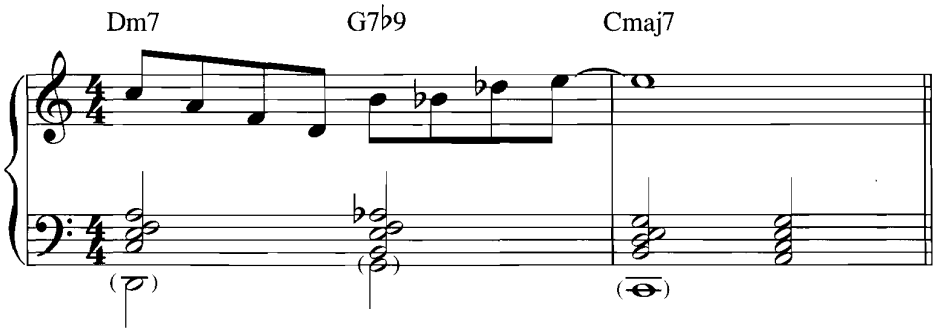
Because the notes are the same in the respective G7 and D♭7 chords in the diagram, a scale that fits the extensions or alterations of one chord will also fit those in the other.

- Over G13 or D♭7alt, you can play G Lydian ♭7, which equals D♭ altered (or D melodic minor). The 13th of G (E) is the ♯9 of D♭.
- Over G13♭9 or D♭7♯9, play the A♭ diminished scale, producing dominant diminished over both chords.
- Over G9♭13 or D♭9♭13, play the whole tone scale. Both chords will receive the correct ♭5/♯11 and natural 9.
- Over G7alt or D♭9, play A♭ melodic minor to produce G altered or D♭ Lydian ♭7. Again, this also fits if a ♭5/♯11 is present on D♭9.
- Over G13♯9 or D♭13♯9, play A♭ diminished.
- Over G7♯9♭13 or D♭13, play A♭ melodic minor to produce G altered, or D♭ Lydian ♭7.

Tritone substitution also provides a method for improvising **outside** of the harmony, by outlining a melodic line that is a tritone away from the expected diatonic dominant (or vice versa).



or the opposite:



John Coltrane often substituted the ii–V a tritone away for the original ii–V cadence. For example, the progression

| **Dm7 G7** | **Cmaj7** | | |

iim7 V7 Imaj7

would become:

| **A♭m7 D♭7** | **Cmaj7** | | |

G♭: iim7 V7 **C:** Imaj7

Mixture of the sub ii–V with the original often occurs, as in Duke Ellington's "Satin Doll."

| **Am7 D7** | **A♭m7 D♭7** | **Cmaj7** | | |

G: iim7 V7 **G♭:** iim7 V7

C: SV7/I Imaj7

The SubV7 chord may serve as a pivot chord in a modulation to a foreign key.

	Am7	**Bm7♭5**	**E7alt**	**Am7**	**A♭7**	**Gm7**	**G♭7**	**Bm7**
Am:	im7	iim7♭5	V7alt	im7		**F:** iim7	**SV7/I**	
						Gm: SV7/i	im7	**Bm:** V7	im7

Changing Chord Quality

A dominant 7th chord may substitute for a maj7 or a m7 chord on the same root, providing more harmonic possibilities when comping and improvising. Here is chord quality change applied to a diatonic turnaround in C major.

Minor to Dominant Chord Quality Change

Cmaj7	**Am7**	**Dm7**	**G7**	becomes:	**Cmaj7**	**A7**	**D7**	**G7**
Imaj7	vim7	iim7	V7		Imaj7	VI7	II7	V7

Taking this procedure a step further, replacing the expected VI7, II7, and V7 chords with their appropriate tritone subs results in the **Tad Dameron turnaround**.

Cmaj7	**E♭7**	**A♭7**	**D♭7**
Imaj7	SV7/ii	SV7/V	SV7/I

A common modification of this progression occurs when maj7 chords are substituted for the dominants.

Cmaj7	**E♭maj7**	**A♭maj7**	**D♭maj7**
Imaj7	♭IIImaj7	♭VImaj7	♭IImaj7

Numerous instances of chord quality substitution appear in the jazz and standard song literature. Here are some notable examples.

- "Just Friends" first four bars
- "Sophisticated Lady" last two bars of the bridge
- "'Round Midnight" last two bars of the bridge
- "Wave" between the first two A sections
- "Chega de Saudade" the bridge, where Dm7 becomes Dmaj7

Substituting a m6 or m(maj7) Chord for a m7 Chord

This technique resembles chord quality substitution. Following a ii–V cadence to a minor 7th chord, the minor 7th may be changed to a m6 or m(maj7) in the following measure, melody permitting. The effect is to continue the harmonic rhythm, giving the impression that the chord progression changes regularly on each measure, while, in fact, only the quality has changed. The last four bars of the A section of "Autumn Leaves" furnishes an example.

Am7♭5	**D7alt**	**Gm(maj7)**	**Gm6**
iim7♭5	V7alt	im(maj7)	im6

Passing Chords

Any chord that moves between one diatonic chord and another one nearby may be loosely termed a **passing chord**. A diatonic passing chord may be inserted into a pre-existing progression that moves by a third in order to create more movement.

| Cmaj7 | Em7 | Dm7 | G7 |

A diatonic passing chord may be inserted between I and iii.

| Cmaj7 Dm7 | Em7 | Dm7 | G7 |

The easiest passing chords to recognize move chromatically, with the passing chord quality usually matching that of the chord above or below. Here is the same progression with a chromatic passing chord between iiim7 and iim7.

| Cmaj7 | Em7 E♭m7 | Dm7 | G7 |

Adding Extra Chords

Whenever Imaj7 moves to VI7, two additional chords may be inserted to strengthen the progression. Below we'll examine some possible modifications of a simple turnaround in C major.

| **Cmaj7** **B7** | **B♭7** **A7** | **Dm7** | **G7** |

Imaj7 V7/iii SV7/vi V7/ii iim7 V7

Replacing the III7 with its tritone sub results in smooth bass movement and parallel dominant double passing chords: two passing chords in a row—B7 and B♭7—between Cmaj7 and A7. B7 is a secondary dominant of Em.

| **Cmaj7** **B7** | **B♭7** **A7** | **Dm7** | **G7** |

Imaj7 V7/iii SV7/vi V7/ii iim7 V7

Notice that each chord receives the same metric placement and time duration. The turnaround to the first section of "Satin Doll" (measures 7 and 8) furnishes an example of the progression shown directly above (parallel dominant double passing chords). Another example is found in the Latin jazz standard "Aquarela di Brazil." The same turnaround may also result from a modification of the following chord progression.

| **Cmaj7** **Fmaj7** | **Em7** **A7** | **Dm7** | **G7** |

Imaj7 IVmaj7 iiim7 VI7 iim7 V7

also becomes

| **Cmaj7** **B7** | **B♭7** **A7** | **Dm7** | **G7** |

Imaj7 V7/III SV7/VI VI7 iim7 V7

As noted before, the qualities of the chords may be altered.

Parallel Major Double Passing Chords

| **Cmaj7** | **Bmaj7** | **B♭maj7** | **A7** | **Dm7** | **G7** |

or

Parallel Minor Double Passing Chords

| **C7** | **Bm7** | **B♭m7** | **A7** | **Dm7** | **G7** |

Diminished Chord Functions

As noted in Chapter 5, any functioning dominant 7th chord may be replaced by its related vii°7. When resolving to their intended targets, these are technically not passing chords, as they perform the dominant function in a cadence. In practice, whenever a diminished chord is built on a non-diatonic step and also leads to a diatonic chord, it may be called a passing chord.

These are the most common places to put diminished passing chords in a major key:

- on the ♯1 or ♭2 scale degree leading to iim7,
- on the ♭3 scale degree leading to iim7 or to iiim7,
- on the ♯4 scale degree leading to V7,
- on the ♯5 scale degree leading to vim7.

All diminished chords usually sound best with the diminished whole-half scale as the source for melodic notes or extended arrangements. Diminished chords functioning as vii°7 may also take the harmonic minor scale based on the root of their target chord as an improvisational choice if that chord immediately follows and is minor. If the target chord is a major or dominant chord, the diminished scale is usually best, though any scale devised with the intent to tonicize the target chord and that includes the notes of the diminished chord may be explored.

In the following turnaround, notice the chromatic bass line between Imaj7 and iim7.

Cmaj7	**A7♭9**	**Dm7**	**G7**	becomes:	**Cmaj7**	**C♯°7**	**Dm7**	**G7**
Imaj7	VI7♭9	iim7	V7		Imaj7	vii°7/ii	iim7	V7

A chord may change to a diminished chord on the same root as an embellishment.

Cmaj7	**C°7**	**Dm7**	**G7**	or:	**Em7**	**E♭°7**	**Dm7**	**G7**
Imaj7	i°7	iim7	V7		iiim7	♭iii°7	iim7	V7

i°7 is an embellishing chord of Imaj7. ♭iii°7 has a similar function as i°7 since both are a m3rd apart. Notice how each one moves smoothly to iim7. Refer to measures 13–15 of "Chega de Saudade" and measure 22 of "Body and Soul" for two of the many examples of embellishing diminished chords found in the literature.

Diminished Substitution

The equivalencies of the diminished scales we examined in Chapter 3 also apply to the related chords. Each of the twelve possible diminished chords and the twelve possible dominant 7♭9 chords are equivalent in some inversion to one of three diminished 7th chords: C°7, D♭°7, or D°7.

- C°7 = E♭°7 = G♭°7 = A°7 = D7♭9 = F7♭9 = A♭7♭9 = B7♭9
- D♭°7 = E°7 = G°7 = B♭°7 = E♭7♭9 = F♯7♭9 = A7♭9 = C7♭9
- D°7 = F°7= A♭°7 = B°7 = E7♭9 = G7♭9 = B♭7♭9 = C♯7♭9

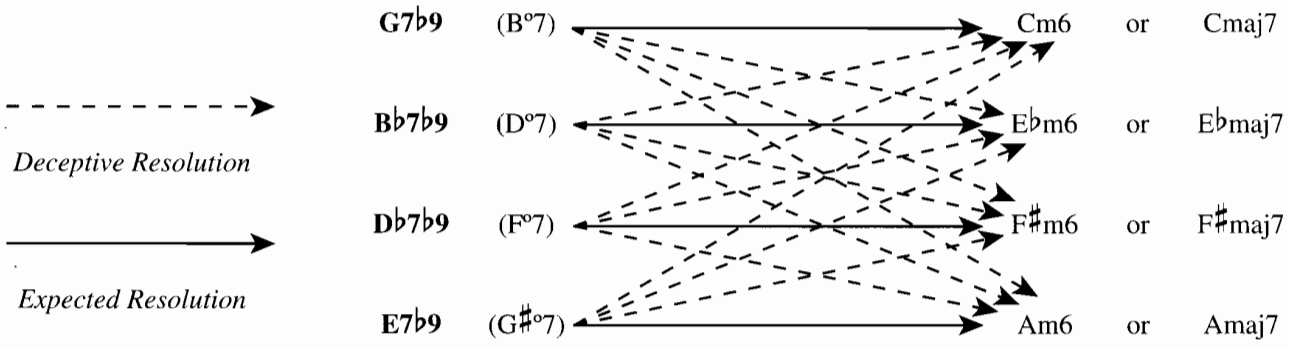
Here are dominant chords obtained by the diminished substitution method.

Gm7	**C7**	**Fmaj7**	may become:	**Gm7**	**E♭7**	**Fmaj7**
iim7	V7	Imaj7		iim7	♭VII7	Imaj7
			or:	**Gm7**	**G♭7**	**Fmaj7**
				iim7	SV7/I	Imaj7
			or:	**Gm7**	**A7**	**Fmaj7**
				iim7	III7	Imaj7

Any vii°7 chord may resolve to three other minor (or major) key areas other than its related one. For example B°7, D°7, F°7, or A♭°7 may resolve to any of the following:

- Cm6 or Cmaj7
- E♭m6 or E♭maj7
- F♯m6 or F♯maj7
- Am6 or Amaj7

By the same token, the related V7♭9 can work the same way.



Like the G7♭9 chord, B♭7♭9, D♭7♭9, and E7♭9 could also resolve **deceptively** to one of the keys on the right.

We have seen that if we add the related ii to a V7, new harmonies may be created. Thus new deceptive cadences may occur as new reharmonizations for the previous diminished chords.

| Dm7♭5 G7♭9 | as reharmonization for B°7
| Fm7♭5 B♭7♭9 | as reharmonization for D°7
| A♭m7♭5D♭7♭9 | as reharmonization for F°7
| Bm7♭5 E7♭9 | as reharmonization for G♯°7

All the above minor ii–V cadences may resolve authentically or deceptively to one of four key areas: Cm6 or Cmaj7, E♭m6 or E♭maj7, F♯m6 or F♯maj7, and Am6 or Amaj7.

V7♭9 of iim7: a Leading Chord

A straightforward example of diminished substitution, a secondary dominant chord may be inserted before iim7 in any lengthy ii–V–I cadence, thus creating a renewed tension toward iim7.

| **Dm7** | **G7** | **Cmaj7** | | becomes: | **Dm7** **A7♭9** | **Dm7** **G7** | **Cmaj7** | |

iim7 V7 Imaj7 iim7 V7♭9/ii iim7 V7 Imaj7

This technique is mostly used when comping; it allows a new confirmation of the ii. "Body and Soul" is a very good example, as is Spencer William's "I've Found a New Baby," excerpted here.

| **Cm7** **G7♭9** | **Cm7** | **C7♭9** |

Cm: im7 V7♭9 im7 **Fm:** V7♭9

Side-Stepping

Also called **side-slipping**, this technique can be applied to any lengthy ii–V–I cadence. As it is most commonly used, a chromatic ii–V progression a half step above or below is inserted, which then moves back to the first key area. This effect intensifies harmonic interest and is often used on repeated ii–V's.

| **Dm7** | **G7** | **Cmaj7** | | becomes: | **E♭m7** **A♭7** | **Dm7** **G7** | **Cmaj7** | |

C: iim7 V7 Imaj7 **D♭:** iim7 V7 **C:** iim7 V7 Imaj7

Side-stepping is not necessarily a chromatic phenomenon. Sometimes the ii–V–I cadence may be replaced by another ii–V that side-steps by a M3rd below or m3rd above.

Side-Stepping by Major 3rd Below: "'Round Midnight" in D Minor, Meas. 3–5

| **Dm7** **G7** | **B♭m7** **E♭7** **Am7** **D7** | **Gm7** |

C: iim7 V7 **A♭:** iim7 V7 **G:** iim7 V7 **Gm:** im7

Side-Stepping by Minor 3rd Above

| **Dm7** **G7** | **Fm7** **B♭7** | **Dm7** **G7** | **Cmaj7** |

C: iim7 V7 **E♭:** iim7 V7 **C:** iim7 V7 Imaj7

Side-stepping is also used in modal tunes as a device for creating tension and release, through the use of dissonance. Miles Davis's "So What" provides a good model for this technique.

Added ii–V's

Any chord may be preceded by a pair of ii–V's. They may be chained together in series and may be mixed with tritone subs.

Dm7	**G7**	**Cmaj7**		
iim7	V7	Imaj7		

becomes:

Em7 **A7**	**Dm7** **G7**	**Cmaj7**		
iiim7 VI7	iim7 V7	Imaj7		

or chained:

F♯m7♭5 B7♭9	**Em7♭5 A7♭9**	**Dm7♭5 G7♭9**	**Cmaj7**
Em: iim7♭5 V7♭9	**Dm:** iim7♭5 V7♭9	**Cm:** iim7♭5 V7♭9	Imaj7

(Charlie) "Parker's Blues" contains many chained ii–V7's.

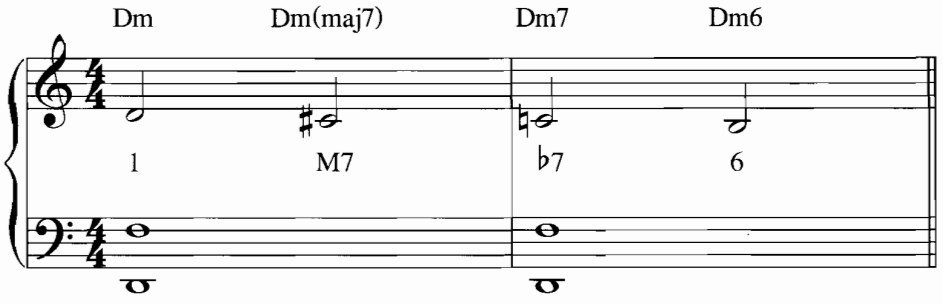
Fmaj7	**Em7 A7**	**Dm7 G7**	**Cm7 F7**	**B♭maj7**
F: Imaj7	**D:** iim7 V7	**C:** iim7 V7	**B♭:** iim7 V7	Imaj7

Here is the same progression with tritone subs added.

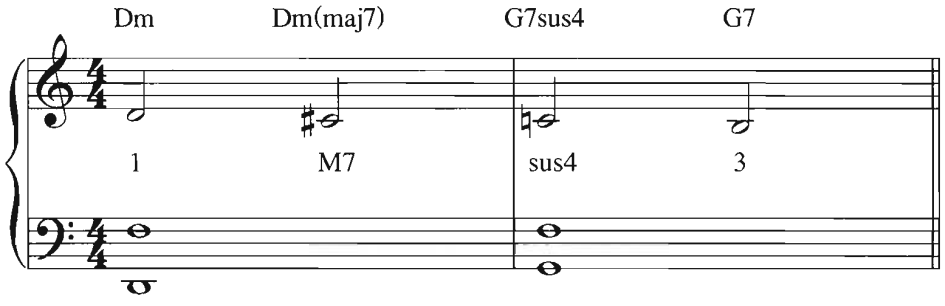
Fmaj7	**Em7 E♭7**	**Dm7 D♭7**	**Cm7 B7**	**B♭maj7**
F: Imaj7	**D:** iim7 SV7/I	**C:** iim7 SV7/I	**B♭:** iim7 SV7/I	Imaj7

CESH

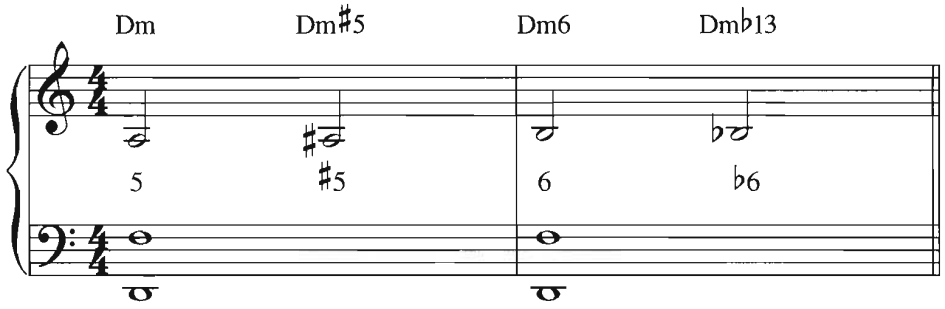
This acronym stands for **chromatic embellishment of static harmony** or **contrapuntal elaboration of static harmony**. Sometimes the technique is simply called **line cliché**. A moving chromatic line is introduced in what would normally be a static progression. Following is an example with a descending chromatic line over two measures of a static Dm7 chord.



The same series of chromatically moving notes works well on a II–V sequence.



CESH may ascend as well as descend.

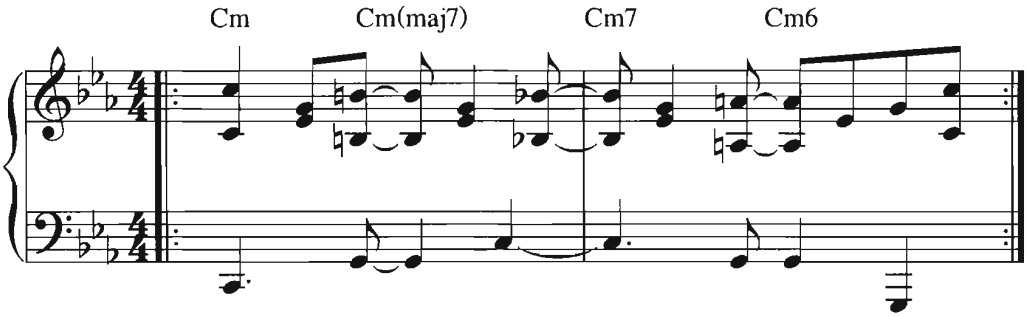


Dm♯5 or Dm♭13 are the same chord as Dm♭6 or even B♭/D. Arrangers, composers, and improvisers frequently resort to this device when a minor chord encompasses two or four bars. "'Round Midnight" is an example where this substitution occurs.

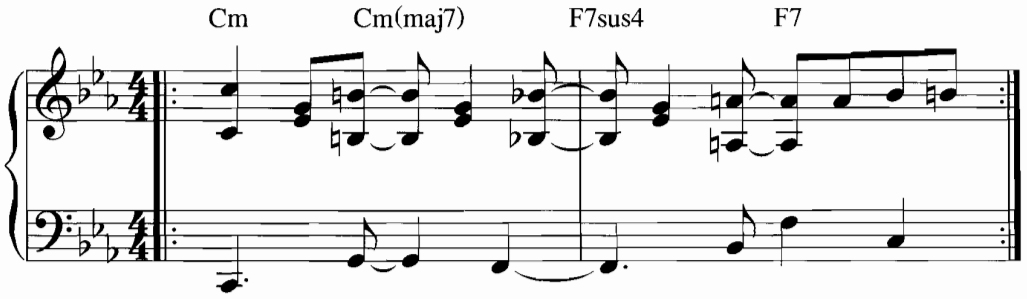
E♭m	**E♭m(maj7)**	**E♭m7**	**E♭m6**	**A♭m7**	**D♭7**
E♭m: im	im(maj7)	im7	im6	**G♭:** iim7	V7

In Latin music, the chromatic descending bass line is mostly encountered as a reharmonization of a lengthy minor (or major) chord, as in the first 4 bars of the Latin standard "Besame Mucho."

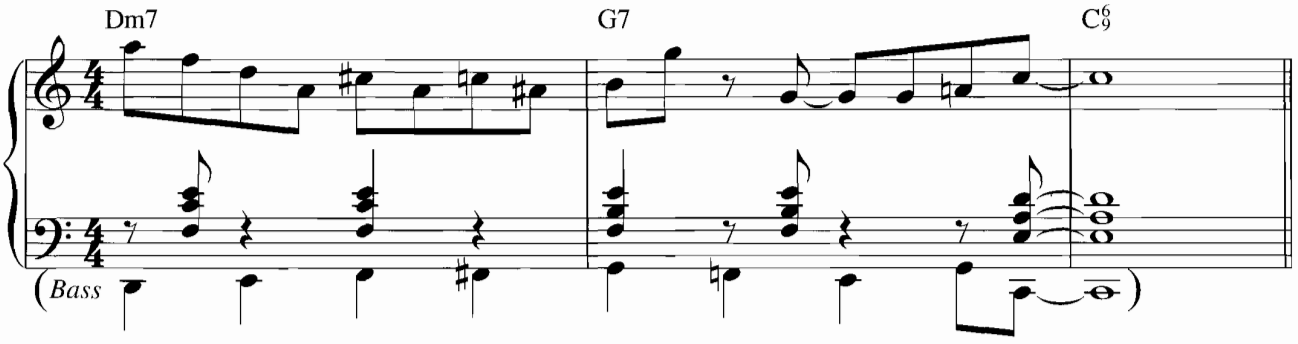
Sometimes the bass remains while the chromatic descending line occurs in both the intermediate voice and the upper voice. Here is a typical Latin montuno pattern where CESH is doubled.



Or in a II–V sequence:

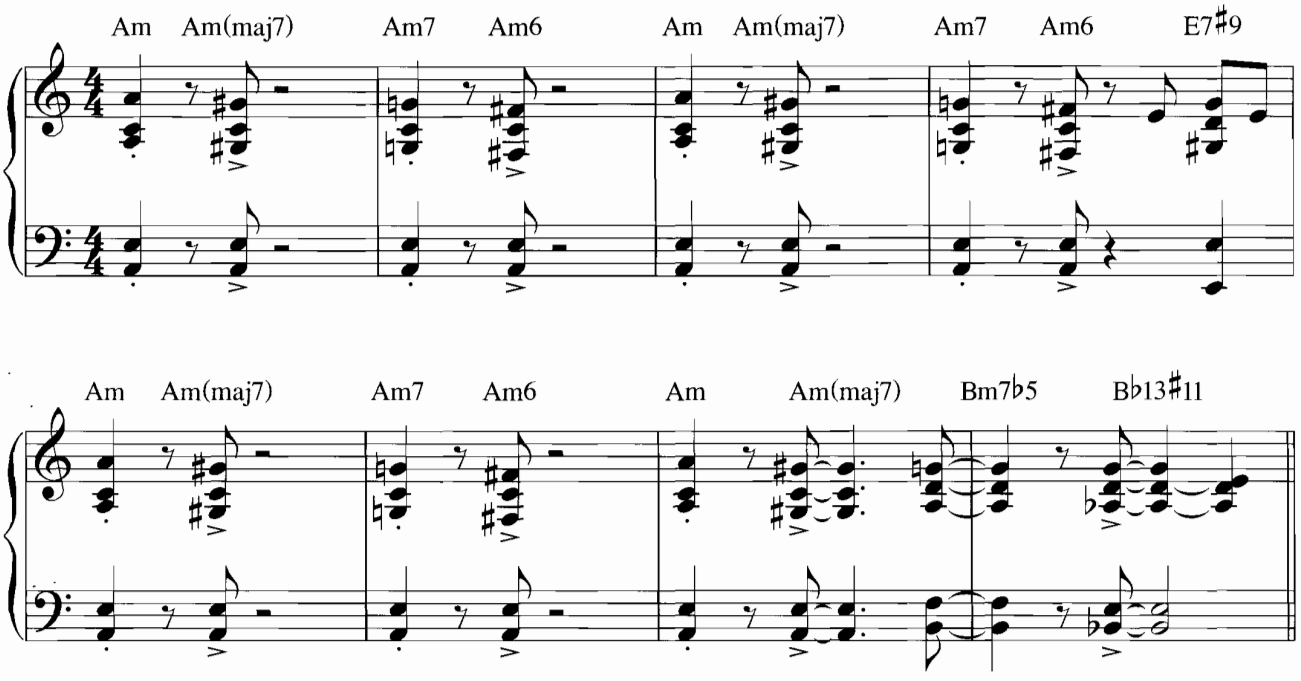


This device is often used in improvisation, especially in bebop.



"Summer of Forty-Two," "My Funny Valentine," "It Don't Mean a Thing," "In a Sentimental Mood," and "In Walked Bud" are good examples of CESH. Sometimes CESH is utilized as a 4- or 8-bar introduction to a tune.

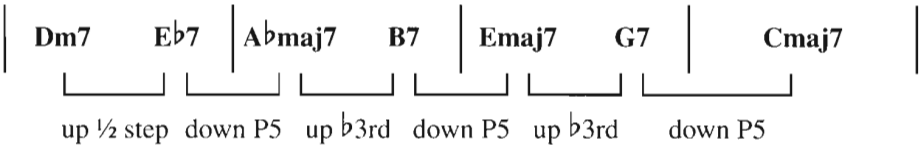
Kosma, "Manha Do Carnival" ("Black Orpheus")



Coltrane Substitutions

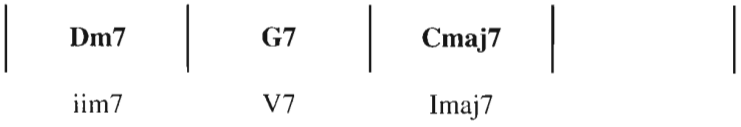
These are among the most complex substitutions in jazz harmony. Variously known as **'Trane changes**, **Giant Steps** changes, or **'Trane substitutes**, this technique incorporates a process of key centers moving through a cycle of major or minor thirds. John Coltrane was the innovator of this challenging technique of harmonization, and it appears in several of his famous compositions, including "Giant Steps" and "Countdown."

An examination of the first 4 bars of Coltrane's "Countdown" in C reveals how Coltrane employed a very useful formula to replace a standard four-bar ii–V–I.

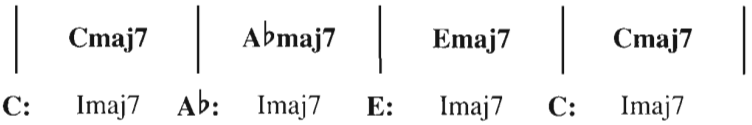


The **"Countdown" formula** may be applied whenever a ii–V–I cadence encompasses four measures. The basic idea is to modulate by major thirds or by minor thirds. While the concept is simple, the difficulty lies in applying the formula effectively to a progression. It is helpful to begin by determining the key in which the progression needs to end, then work backwards from there. By going up or down a series of thirds from that point, it is possible to determine which keys will fit the melody. Coltrane would also frequently reverse the process, altering the melody to fit the progression he had chosen.

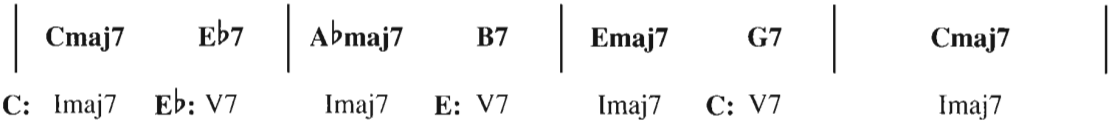
Let's break down the process of modifying the ii–V–I to include a series of key centers modulating down by major 3rds. Begin with a simple ii–V–I cadence.



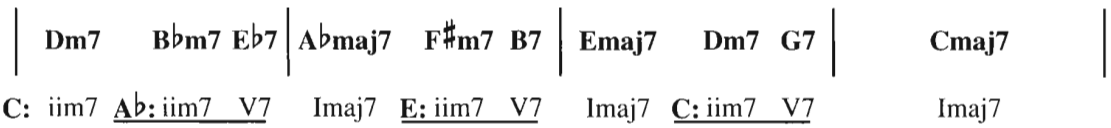
Determine the keys that lie a major 3rd away. These divide the octave from C to C into three equally sized parts.



Each I chord is then preceded by its V.



We can put the iim7 of C back at the beginning.



Extending the idea by preceding each V with its relative ii we get:

Dm7	**B♭m7 E♭7**	**A♭maj7**	**F♯m7 B7**	**Emaj7**	**Dm7 G7**	**Cmaj7**
C: iim7	**A♭:** iim7 V7	Imaj7	**E:** iim7 V7	Imaj7	**C:** iim7 V7	Imaj7

It's also possible to apply tritone substitution and/or modal interchange to Coltrane changes.

| Dm7♭5 A7 | A♭maj7 F7 | Emaj7 D♭7 | Cmaj7 |

All of these techniques may be applied to minor keys as well. It takes practice to become fluent at improvising and comping over Coltrane changes, because they go by fast. There aren't many choices of good lines to go with them. "Giant Steps" and "Countdown" provide good models. Effective improvisational strategies include arpeggios, symmetric lines, pentatonic scales, and similar constructions.

A V7 May Resolve to Any Chord: More Deceptive Cadences

Through a combination of the principles discussed in this chapter, a dominant chord can move to practically any other chord. It can be fascinating to hear a V7 resolve unexpectedly in a tune, leaving the listener convinced that the progression sounds right, but lacking an immediate explanation as to why. Obviously, it is a simple task to assign Roman numerals to any progression, but that does little to explain why an unusual progression is effective and convincing. For the purpose of applying what one has learned it is far better to have an understanding of the theory that controls the motion of dominant chords. Then one is able to understand both the "how" and the "why." Many musicians learn how progressions work, but fail to reach the deeper level of understanding that comes with comprehending why chords move as they do.

"How" may be viewed as the Roman numeral formula for analyzing chord progressions. All one needs to remember is what goes where. "Why" requires an abstract understanding of the source of a given chord progression. An understanding of *why* chords move as they do will facilitate remembering *how* they move.

While differences of opinion are bound to occur, harmonic motion can only be understood by explaining that motion in clear and logical terms.

A V7 can resolve to tonic family chords (I, iii, vi in major, or i, ♭III in minor) by

- P5th down to I or i, the dominant function.
- whole step up to vim7, or possibly to VImaj7 as a back-door cadence, in which case the proper designation would be ♭VII7/I.
- half step down to I or i as SubV7/I or SubV7/i.
- m3rd down to iiim7 or maj3rd down to ♭IIImaj7.

A V7 can also move to a chord of the subdominant family (ii or IV in major, iim7♭5, iv, or ♭VI in minor) by

- P4th down to iim7 or iim7♭5.
- whole step down to IVmaj7 or ivm7.
- half step up to ♭VImaj7.

A V7 can move to any other chord in the dominant family or any of their substitutes derived by diminished substitution

- to a dominant chord up or down a minor 3rd.
- to a dominant chord up or down a tritone.
- to a min7♭5 up a major 3rd.
- to a °7 chord up a half step, up a maj 3rd, up a 5th, or up a ♭7th.

A V7 may resolve with these other possible harmonic motions:

- to a major or minor chord up a minor 3rd.
- to a major or minor chord up a major 3rd.
- to a major or minor chord up or down a tritone.
- by a whole step up to vim7.

Below are some unusual progressions involving dominant chords. It is quite simple to employ them, but why do they work? Why do they sound both convincing and deceptive?

Half Step Up, Usually to im6 or im7

B7	**Cm6**
VII7	im6

It sounds unusual to hear VII7 resolve to Cm6 rather than to its usual target chord (Em7, Em6, or Emaj7). One possibility for explaining why B7 may resolve to Cm6 is to consider it a variation of a plagal (IV–I) cadence rather than an authentic (V–I) cadence.

Cm6	**F9♯11**	**Cm6**
im6	IV9♯11	im6

By replacing the F7 with its tritone substitute, B7, we get the following cadence, characterized by ascending half-step motion in the bass.

B7	**Cm6**
SIV7	im6

Up or Down a Tritone

While this is occasionally used in jazz, there is no agreement among theorists as to why it works. It simply sounds convincing, or as Debussy might say, follows the "rule of hearing." Some hear it as a "near miss" to the expected target down a 5th, while others hear it as an incomplete tritone sub, making it essentially the same chord as the original dominant 7th, except that the tendency for resolution has been lost.

Up a Minor 3rd or Major 3rd

Dominant chord resolution upwards by either minor or major 3rd is not common, but it does occur. The logic of these progressions can be understood by following the steps below.

In this example we'll analyze a dominant chord resolving up by a minor 3rd.

G7	**B♭m7**
V7/I	♭VIIm7

B♭m7 could also be B♭maj7 if there is chord quality substitution.

Consider this major ii–V–I cadence in G♭.

A♭m7	**D♭7**	**G♭maj7**
iim7	V7	Imaj7

We'll insert iiim7 as a diatonic substitute for Imaj7.

A♭m7	**D♭7**	**B♭m7**
iim7	V7	iiim7

Now replace the V7 with its tritone sub.

A♭m7	**G7**	**B♭m7**
iim7	SV7/I	iiim7

Now we'll examine a dominant chord resolving up by a major 3rd.

G7	**Bm7**
V7/I	VIIm7

Bm7 could also be Bmaj7 if we have a chord quality change.

Consider a plagal cadence in B minor.

Bm6	**E7**	**Bm6**
im6	IV7	im6

We learned that the E7 chord may act as a diminished substitution for G7 and vice versa. If E7 is IV7, then G7 is ♭VI7.

Bm6	**G7**	**Bm6**
im6	♭IV7	im6

Chapter 8 Exercises

1. Each pair of chords below derives from the chord scale indicated. Show one applicable substitute chord for each chord listed. Remember that function does not apply in modal contexts.

Fm7 and B♭7 (F Dorian)

Gmaj7 and D7 (G Ionian)

Am7♭5 and E♭maj7 (E♭ Lydian)

C♯m7 and G♯m7♭5 (A Major)

Cm7 and B♭maj7 (D Phrygian)

Fm7♭5 and A♭m𝄋 (A♭ Mel. Min.)

Gmaj7 and A7 (D Major)

Cm(maj7) and B°7 (C Harm. Min.)

B7alt and F13(♯11) (B Altered)

F♯m7♭5 and Cmaj7(♭5) (F♯ Locrian)

Fm7♭5 and E♭7 (D♭ Lydian ♭7)

Em7 and Am7 (E Minor)

G♭maj7 and A♭7 (B♭ Minor)

Fmaj7 and G7 (F Lydian)

2. Provide tritone substitutes for the following dominant chords.

A♭7 D7 B7 E♭7 G7 C♯7 F7 B♭7 A7 C7 E7

3. Provide tritone substitutions for the following chord progression. Show harmonic analysis.

| Gm7 | Am7♭5 D7alt | Gm7 C7 | Fm7 B♭7 | E♭maj7 | Em7♭5 A7alt |

| Dm7♭5 G7alt | Cm7 G7♭9 | C7 F7 | B♭7 A7 | A♭7 D7alt | Gm(maj7) ||

4. a. Provide chord quality change substitutions for the above chord progression (exercise 3) with harmonic analysis.

b. Compose a chord progression for F minor blues that includes these chord quality changes: major for minor, dominant for major.

c. Analyze each new chord progression.

d. Make new chord progressions from the above by using diatonic and tritone substitutions.

5. Apply diminished 7th chords over the progression given in exercise 3.

6. Make diminished substitutions over the progression given in exercise 3.

7. Add ii–V's to the following chord progressions and provide harmonic analyses.

a. | Gm7 | | | |

| E♭maj7 | | Cm7 | | |

| F7 | A7 | D7alt | Gmaj7 | ||

b. | Fmaj7 | | | | |

| B♭maj7 | | A♭maj7 | | Fmaj7 ||

c. | Gmaj7 | | E♭maj7 | | |

| Bmaj7 | | A♭m6 | | |

| Fm6 | | Dm6 | | |

| B♭maj7 | | Gm6 | | ||

8. Create CESH over the above chord progressions given in exercise 7. (New chords maybe inserted freely.)

9. Provide six examples of John Coltrane substitutions: three from tunes that already incorporate the progression, and three that do not but are suitable for Coltrane changes. (Do not include Coltrane's own works.)

10. Reharmonize the diminished 7th chords you applied to the progression in exercise 5.