Secrets of Jazz Arranging Revealed

Edited by Rick Roseberry

Table of Contents

Foreword	1
Chord Progression Rules	2
Scoring	2
Simple 4-Way Harmonization	2
Chart of Unresolved Tensions	4
Additions to Four-Way Harmonization	4
Alternate Voicings	5
Four-Way Sax Spreads	6
Bass Writing in Two	7
Bass Writing in Four	7
Background Writing	7
Low Interval Limits	8
Drop Two	8
Available Tensions For Drop Two	9
Concerted Writing - Constant Coupling	9
Concerted Coupling - Variable Alto	9
Concerted Writing With Saxes Spread	9
Tutti Writing1	C
Counterpoint Rules1	
Two-Part Counterpoint, First Species1	1
Three Part Counterpoint, First Species1	2
Chord Substitutions1	3
Cadences1	3
Harmony1	4
Flow-chart of 104 Chord Substitutions1	
74 Different "C" Chords1	8
Exercises and Demonstrations (26 pages)2	1

Print this document to letter-sized 8.5x 11 inch paper, 48 pages, single-sided, portrait.

This eBook is **not** specific to any instrument.

"Secrets of Jazz Arranging Revealed" is edited by Rick Roseberry, a music teacher who has played, studied, taught and gigged for 45 years.

Other eBooks by Rick Roseberry, available from Roseberry Books:

"Secrets of Chord Substitutions Revealed" (\$10 eBook)

"Secrets of Chords and Scales Revealed" (\$10 eBook)

"Secrets of The Guitar Fretboard Revealed" (\$10 eBook)

Buy or see Samples of them all at www.fretboardrevealed.com.

Copyright 2009, Rick Roseberry, all rights reserved.

Foreword

"Arranging" is the art of harmonizing a melody line, or which notes to use to make up the chord that's under the melody note. It's great tool for all intermediate-to-advanced music students, composers, songwriters, and musicians.

Use these jazz arranging concepts to create horn charts, vocal harmonies, and parts for any quartet, even bell ringers and glass squeakers. You can also create cool chord progressions for your songs, or improve your piano technique, all in any style of music.

A basic understanding of music theory and harmony is necessary to understand these concepts. Although the Exercises require reading of treble clef and chords, Arranging can be understood without reading music. However, in practice most Arranging is performed by creating "charts" for each instrument, in the instrument's key and range, thus necessitating the ability to write music.

Symbols

Major chord (C E G in the key of C) = C Major-7 chord (C E G B in the key of C) = Δ or M7 Minor chord (C Eb G in the key of C) = m Minor-7 chord (C Eb G Bb in the key of C) = m7 Dominant-7 chord (C E G Bb in the key of C) = V7 Diminished chord (C Eb Gb A in the key of C) = o Flat = b Sharp or Augmented = #

Chord Progressions

A. General Rules

- Any chord may follow the I chord (which is a major-7th, 6th, minor-6th, or minor-Δ chords; or in the key of C: CΔ, C6, Cm6, CmΔ).
- 2. Any I chord may be preceded by its V7 dom. 7th chord (<u>V7</u> IΔ; or in the key of C: <u>G7</u> CΔ).
- Any V7 chord may be preceded by its V7 of V chord (<u>V7 – V7</u> – IΔ; or <u>D7 – G7</u> – CΔ).
- Any V7 chord may be preceded by its IIm7 (<u>IIm7 – V7 - IΔ</u>; or <u>Dm7 – G7 - CΔ</u>).
- Any IIm7 may be preceded by its V7 of II
 (V7 IIm7 V7 IΔ; or <u>A7 Dm7</u> G7 CΔ).
- Ilm7 V7 may be repeated
 (Ilm7 V7 Ilm7 V7 IΔ; or Em7 A7 Dm7 G7 CΔ).

B. Pacing

- 1. <u>IIm7 V7</u> should normally move from relatively strong (the IIm7 chord) to relatively weak (the V7) bars or beats.
- With one chord per bar, move from odd to even bar (odd bar: IIm7, even bar: V7).
- With one chord per beat, move from odd to even beat (odd beat: IIm7, even beat: V7).

C. Substitute Chords

- Any V7 chord may be replaced by the key's flat-II7 chord (replace <u>G7</u> - CΔ with <u>Db7</u> - CΔ). Note this is a Dominant chord, not a minor-II chord.
- 2. Ilm7 chord may be replaced by the Ilm7 related to the flat-Il7 chord (replace Dm7 G7 CΔ with Gm7 Db7 CΔ).
- IVm chord may be replaced by the flat-VII7 chord (replace C – C7 – F – Fm7 - CΔ with C – C7 – F – Bb7 - CΔ).
- 4. Substitute for the I chord:
 - The I chord (CΔ) may be replaced by the IIIm7 (Em7) when a final cadence (ending) is not desired;
 - b. When used in this manner, the IIIm7 chord must be followed by the VIm7 (Am7), the V7 of II chord (A7), a substitute-V7 of II chord (Eb7), the flat-III diminished (Eb0), or the flat-IIIm7 (Ebm7) chord.

Look for more Chord Subs later on page 13.

Scoring

Simple Four-Way Harmonization

- A. Harmonize chord tones with notes from the chord built directly beneath the melody. Exception: do not use a minor-2nd (Db in the key of C) to harmonize, as it is dissonant. If the chord has no other symbol (C instead of Cm or C7), harmonize it as a major or minor 6th chord (either of which are a I chord).
- B. Harmonize non-chord tones with notes from the chord, but <u>omit the nearest</u> <u>chord tone</u> that would normally appear beneath the melody.
- C. Definition of "Anticipation:" a rhythmic device which forces an on-the-beat note to be attacked prematurely by one-half beat, resulting in melodic and harmonic syncopation. Any beat may be anticipated, but in 4/4 time anticipation normally occurs before the first and third beats of the bar. The last off-beat eighth-note preceding a chord change and followed by a rest is another form of anticipation. NOTE: if the melody anticipates, the harmony must anticipate with it.

- D. Definition of "Approach Note": An approach note is a non-chord tone that approaches a chord tone by a whole or half step from above or below, the duration of which is a quarter-note or less, usually an eighth-note. Also called "Passing Tone" or "Neighboring Tone." If it is chromatic tone then it can also be an approach note.
 - 1. Diminished Approach
 - a. An approach note must be either the II, the IV, or major-7 of the major scale of the chord you are approaching. Not necessarily of the current chord, but the scale of the approached chord.
 - b. Must approach a chord tone.
 - c. A diminished chord cannot approach a diminished chord (no two different diminished chords in a row).
 - d. Build the diminished chord from the melody note down, by minor-3rds (C A Gb Eb).

2. Chromatic Approach

- a. May approach anything, either chord tone or non-chord tone.
- b. Always approach chromatically (a half-step away, from above or below).
- c. First, harmonize the note being approached, then go back and use chromatic movement in all parts in the same direction as the melody.

E. General Statements

- 1. If a non-chord tone can be an approach note, then it is an approach note.
- 2. If you have two or more repeated eighth-notes, the last one can **not** be an approach note.
- 3. When harmonizing approach notes, use sharps (#) when ascending and flats (b) when descending. Take advantage of the key signature. Use as few accidentals as possible but be sure to spell correctly.
- 4. An anticipation can **not** be an approach note, and vice-versa.
- If the approach is scale-wise, normally one would use the diminished approach, except on the leading tone.
- 6. An approach note must **feel** like it is approaching the next chord.
- Melodic sequence begets harmonic sequence. The harmony is always determined by the melody.
- 8. If leading line (melody) moves step-wise (by half-step or whole-step), then so must the harmony. The harmony must not have repeated notes.

F. Priorities For Scoring Each Chord

- 1. Anticipation, use a strong note rhythmically and melodically.
- 2. Chord tones, which chord (Major or minor) to use, chord extensions (7th, 9th, 13th).
- 3. Approach note strategy, Diminished or Chromatic.

- 4. Non-chord tones, use for tension (2nd, 4th, 6th, altereds (b9 #9 b5 #5).
- G. Unresolved Tension
 - 1. A non-chord tone which is not an approach note.
 - Unresolved tension occurs in the melody only, not in the harmonization.
 The non-chord tone depends on the tension, see the following Chart of Unresolved Tensions.

Chart of Unresolved Tensions

<u>Chord</u> <u>Possible unresolved Tensions</u>

Major 6th the 9 replaces the 1, or the 7 for the 6

Minor 6th 9 for 1, or 7 for 6

Dominant 7th b13 for 5 (must add the b9), 13 for 5, #11 for 3, 11 for 3, b9

for 1, 9 for 1, #9 for 1 (must add b13, except when used as a

substitute Dominant)

Minor 7th 11 for *b*3, 9 for 1 Augmented 7th #11 for 3, 9 for 1

Diminished 7th Any scale note one whole step above a chord tone

Minor 7 b5 11 for b3, 9 for 1 (if moving to a Major I chord, usually b9)

Major 7th #11 for 3, 9 for 1

Additional Concepts on Four-Way Harmonization

- A. Substitute a 9 for the 1 in any and all Dominant-7th chords, except when the 1 is in the melody.
- B. Introduce the flat-9 on the last rhythmic attack on a V7 to I progression.
 - 1. The I chord can be either a major- or minor-sixth chord
 - 2. Can not be an anticipation note.
 - 3. Once the flat-9 (or other altered chord tone) is introduced into the chord, you can not go back to a natural-9 (except when moving #9 9 b9).
 - 4. The Dominant-7th following a minor seventh flat-5, will have a flat-9.
 - 5. When the melody is #9 b9 5, keep a flat-13 below the flat-9 (unless it is an approach note). Maintain the altered chord tension.
- C. When the 9 is the lead (usually the highest note) of a major- or minor-sixth chord, a major-7 must be used in the second voice (instead of the sixth).
 - 1. Could also be an approach note.
- D. Double Chromatic Approach
 - 1. Two non-chord tones that approach a chord tone from the same direction, with a duration of an eighth-note or less.
 - Start by harmonizing the same as the Chromatic Approach, then add the second non-chord tone.

- E. When the 1 or 9 is in the lead of a Dominant-7th chord that is the last rhythmic attack of V7 1, you may introduce the #5 on the last attack. Duration must be an eighth-note or quarter-note, no longer. If it occurs on the downbeat, change the chord symbol to "+" (Augmented chord), else it is just a passing note.
- F. Delayed Resolution
 - The non-chord tones that approach a chord tone from opposite directions by whole- or half-steps, the duration of which are eighth-notes or less.
- G. Dominant Approach
 - Is the V7 of the chord you are approaching (not necessarily V7 of the key).
 - 2. #5 must be used.
 - 3. Duration must be eighth-note or less.
 - 4. Normally turns out to be a substitute Dominant.
 - 5. To be used when
 - a. 13 goes to the 5 on a Dominant-7 chord.
 - b. What looks like a Chromatic Approach to the 13.

Alternate Voicings

- A. Alternate Voicing for the #11: when the #11 moves up to become the 5, treat it as a flat-5 instead of a #11.
- B. Dominant-7th with the 1 in the lead voice (the V7 of I, spelled 1 5 (or 13) 3 flat-9, top to bottom):
 - 1. Supercedes the "1 must be in the lead" rule.
 - 2. Has a richer sound.
 - 3. May be an anticipation.
 - 4. Must be in a sustained passage, can not be a melodic pick-up.
 - 5. Must not be going to the 1 of the I chord melodically.
 - 6. May be used for climax or end of phrase.
 - 7. Can not be used in a moving passage.
 - 8. Bottom range limit for the lead is F above middle C (note: the low interval limit for a 9 in the lead is Gb above middle C).
- C. If an 11 is the lead of a minor-7th chord, and sustains or repeats to become the 1 in the lead of a Dominant-7th chord, you may:
 - Use the altered Dominant and conventional minor-7th chord if the Dominant is the V7 of I.
 - 2. Look for forward motion.
 - Use the altered minor-7th and conventional Dominant-7th if the Dominant-7th is not a V7 of I.
 - 4. Altered minor-7th chord is spelled 11 flat-3 1 flat-7.

- 5. You can not use the alternate Dominant-7th on an Augmented Dominant-7th (1 3 #5 b7) chord, so alter minor-7th chord instead.
- 6. When 11 of the minor-7th goes to the 9 of a Dominant-7th chord, alter the minor-7th.

Four-Way Sax Spreads

Alto, Tenor I, Tenor II, Bari

Also called "Soli Writing," used for accompaniment or background

- A. You must have the root in the Bari (Baritone sax) at all times. Be aware of the Bari's practical range.
- B. Tenor II (Second Tenor) may play the 7 or the 3 of the chord. May play 5 on a Major chord or in a diatonic chord progression (also called parallel movement: such as C Dm Em F G7 C).
- C. Tenor I (First Tenor) plays 3 or 7, whichever one is not used by Tenor II.
- D. Alto plays the 5 or a tension (see F.4. above), except on a Dominant-7th chord play the flat-5 instead of the natural-11 (the 4).
 - 1. Do not play the 3 or the 7 on seventh chords in the alto.
 - On a minor-7th chord you may have the 1 in the lead except in a diatonic chord progression (only use in tight spots). Do not double another note with the alto.
- E. Diatonic chord progression must be voiced parallel. Avoid the 9 or 1 in the lead. The alto may play the 3, 5 or 7.
- F. On seventh chords (minor or dominant) the optional note is the 5.
- G. You cannot have more than the interval of a seventh between any two adjacent horns except between the bari and the tenor II, where you may have a tenth.
- H. Make voice leading as smooth as possible.
 - On any dominant motion 3 goes to the 7, and 7 goes to the 3. Exception: in a sub-V7 to I progression (Db7 to Cmaj7), the 7 goes to the 7 and the 3 goes to the 3.
 - Try for contrary or oblique motion (avoid parallel) between outer voices.
 - Watch the low interval limits of each voice or instrument, less important for alto.

The range for the lead alto on spreads is D4 (the D above middle-C) through C5 (the C an octave above middle-C):



I. For Five-Part writing, use two tensions or the 5 plus a tension.

Bass Writing in Two

- A. Put the root of the chord in the bass every time the chord changes.
- B. Write on the first and third beats.
- C. If there is one chord per bar, use the 1 and 5 of the chord.
- D. Change direction of line frequently.
- E. Use flat-5 approach on V7 of I (G7 C would be the notes G D Db C, with Db as the flat-5 approach note).

Bass Writing in Four

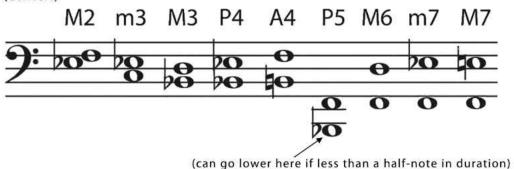
- A. Put root in the bass every time chord changes.
- B. Use chord tones and scale notes in passing (passing notes).
- C. Use occasional chromatic approaches in passing.
- D. Change direction frequently.
- E. Use flat-5 approach on V7 of I.
- F. Do not leap into or out of a non-chord tone.

Background Writing

- A. When the melody moves, the background rests or sustains.
- B. Conversely, when the melody rests or sustains, the background moves.
- C. Keep the background at least a third away (above or below) from the melody at points of simultaneous attack.
- D. Harmonized background melody should range within the octave above middle C, preferably in the lower middle of the treble clef.
- E. The background melody consists of:
 - 1. Chord tones, usually coinciding rhythmically with the melody.
 - 2. Approach notes on different points of attack.
 - Unresolved tensions, when many tensions appear in the harmonized melody or at different points of attack.
 - 4. Resolving tensions.
 - Chromatic guide tones (natural chromatic lines running through the chords).
 - 6. Live notes (out of the key notes approached chromatically).
- F. Every note of the background melody must "check out" favorably with the existing melody.
- G. Strong intervals at points of simultaneous attack are thirds and sixths; next best are fourths and fifths.
- H. Once you have anticipated a beat in any section, you cannot write on that beat.

Low Interval Limits

Note: Always assume there is a Root on the bottom of the lowest chord function. (Concert)



M=Major, m=minor, P= Perfect, A= Augmented

Drop Two

- A. Drop the second voice an octave; substitute tension for chord tone in the new space for a second voice.
- B. Tensions occur in the top two voices only, except:
 - 1. You may have a 9 or flat-9 on a dominant seventh chord, down to G2 (top space of the bass clef, G-flat for flat-9).
 - 2. You may substitute a tension in any voice on a major chord, except when the 1 or the 6 is in the lead.
- C. Do not substitute an 11 for a 3 in any chord. All seventh chords must contain a 3 and a 7.
- D. In Drop Two there is no altered dominant (b5 #5 b9 #9), but you can alter a minor seventh.

Available Tensions for Drop Two

<u>Chord</u> <u>Tensions</u>

9 for 1, 7 for 6

IIm7 9 for 1

IV 9 for 1, 7 for 6

V7 13 for 5, flat-13 for 5, 9 for 1, flat-9 for 1

VIm7 9 for 1

V7 of V 9 for 1, flat-9 for 1, 13 for 5

V7 of II 9 for 1, flat-9 for 1, flat-13 for 5, flat-5 for 5

flat-II7 (substitute dominant) 13 for 5, 9 for 1

flat-VII7 13 for 5, 9 for 1

minor 7 flat-5 9 for 1

IV7 13 for 5, 9 for 1

Concerted Writing - Constant Coupling

- A. Harmonize Brass as 4-way Close.
- B. Lead Alto may couple (double) any Trumpet or Trombone part as written or an octave lower. Pick the one that best fits the Alto's range.
- C. Watch Low Interval Limits.
- Minor Seconds are OK in any two voices as long as it is a result of a double lead.

Constant Coupling - Variable Alto

- A. Harmonize Brass 4-way close, or drop 2.
- B. Alto may play any melodic line from the Brass harmony.
- C. If Brass are drop 2, the Saxes must be drop 2 also. No open Brass with closed Saxes.
- D. All Sax harmony must coincide at points of simultaneous attack.
- E. Do not write tensions in the Saxes that do not occur in the Brass. You may have tension in the Brass and the related chord tone in Saxes if separated by a Ninth.
 - 1. This does not apply to natural 11 on a Dominant Seventh.
 - 2. All altered tensions and natural 11 on a V7 must be doubled at the lower octave.
- F. Do not use chromatic approach if contrary motion occurs.

Concerted Writing With Saxes Spread

A. Write Brass 4-way close, or drop 2; and

B. Write Saxes spread.

Tutti Writing

- A. Harmonize Brass 4-way close, or drop 2.
- B. Harmonize Saxes in spreads on strong Brass rhythmic attacks:
 - 1. On first note of phrase;
 - 2. On last note of phrase;
 - 3. On changes of a chord; and
 - 4. During anticipations.

Counterpoint Rules

Writing a cantus firmus (the melody line for which a counter melody is written, the two or more together are the counterpoint melody) needs to have direction, continuity, variety, balance and completeness, without resorting to rhythmic and motivic organization (ie., the structure of a melody).

Conditions for cantus firmus:

- A. All notes to be of equal length, namely whole notes.
- B. The counterpoint is to be a minimum of 8 and a maximum of 16 notes in length; 10 to 12 is the most common.
- C. Useable melodic intervals are Major and minor 2nds, 3rds and 6ths, and perfect 4ths, 5ths, and octaves. Do not use 7ths, intervals larger than an octave, dissonant intervals such as augmented and diminished intervals, or chromatic half-steps.

<u>Direction</u> is achieved by means of a logical contour and a movement to a single climax (or anti-climax) tone.

<u>Continuity</u> is achieved through conjunct (step-wise) motion. Melodies with too many leaps are perceived to be lacking continuity.

<u>Variety</u> is achieved through disjunct motion (2 to 3 leaps maximum) and by means of several changes of direction.

- Follow a leap larger than a 3rd by a change of direction, preferably in stepwise motion.
- b. Avoid two leaps in the same direction, except for 3rds.
- c. Avoid more than two leaps consecutively.

<u>Balance</u> is achieved when no single element predominates to such an extent that the stability of the whole is impaired, therefore:

- a. Avoid excessive motion in a single direction, whether by step or leap. Limit yourself to a maximum of 6 step-wise notes in one direction;
- b. Avoid unresolved melodic tensions such as either unresolved leading tones or outlining the tritone of a 7th by changes of direction in the melody;

- c. Do not repeat single tones; and
- d. Avoid repetition of groups of tones, either exact or in sequence.

Completeness is achieve by beginning and ending on the Tonic and by approaching the final tone by step from above or below (2-1 or 7-8 ending). The 7-8 ending should always include the leading tone (which is a half-step below the tonic); therefore it will sometimes be necessary to raise the lowered 7th degree a half-step by means of a sharp or natural sign.

Two Part Counterpoint, First Species

Writing another line against the cantus firmus ("C.F.") which has the same qualities as the cantus firmus, has melodic independence from it, and yet combines with the cantus firmus to form a logical, smoothly flowing whole.

Conditions:

- A. The melody in counterpoint is to be note-against-note; whole notes only like the cantus firmus;
- B. Only perfect and imperfect consonances may exist as harmonic intervals between the voices. Major and minor 3rds and 6ths, and perfect 5ths and octaves. The perfect 4th, all 2nds and 7ths and all augmented and diminished intervals must be avoided as harmonic intervals.

Use of consonances:

- A. Try each first species exercise with octave or unison, approaching the tonic by a 2-1 line in one voice and by a 7-8 line in the other voice (raising a lowered 7th to a leading tone if necessary). The harmonic interval before the final octave or unison will therefore either be a 6th or a 3rd; and
- B. In the course of the exercise use mostly 3rds and 6ths, rarely 5ths or octaves. Types of movement between the voices:
- A. Use mostly contrary motion as it gives greatest independence
- B. Parallel motion is usable only with 3rds and 6ths up to a limit of 3 in succession. Parallel 5ths and octaves are strictly prohibited as they tend above all to deny independence between the two voices.
- C. Similar motion, though weaker than contrary, is usable with regard to 5ths and octaves (these two approached by similar motion are term "Direct"). Therefore, try to approach all perfect intervals (5ths, octaves) through contrary motion.
- D. Oblique motion will not occur in two-part first species writing since repeated tones are forbidden in either part.
 - Range between the voices should be restricted to a tenth.

Begin with a unison, fifth, or octave if writing a counterpoint above, but exclude the fifth when writing a counterpoint below a C.F.

Avoid simultaneous leaps in both voices.

Do not let the voices overlap (upper voice momentarily lower than the lower voice, or vice-versa).

Avoid climax tones in both voices at the same time.

Avoid the unison in the middle of a song.

Three Part Counterpoint, First Species

All rules for good melody writing still apply except that occasional tied tones may be utilized in either of the counterpoint voices.

The following harmonic combinations are possible (harmonic intervals are always calculated up from the lowest voice, assume a un-notated bass note):

A. 881 Unisons and octave above the bass, not usable in parallel motion

8 1 1

B. 83 Unison or octave and a third above the bass

3 1

- C. 5 Perfect fifth and a Major or minor third above the bass,
 - 3 is a Root position triad, not usable in parallel motion
- D. 86 Major or minor sixth above the bass and a unison or octave

6 1

- E. 6 Major or minor sixth and Major or minor third above the bass,
 - 3 first inversion Major or minor triad. OK in parallel motion. Note that the fourth may occur between upper voices, but not between either upper voice and bass.
- F. M6 Forms a first inversion diminished triad. A tritone occurs between the
 - m3 two upper voices but not between either upper voice and the bass so it is acceptable
- G. 888 Combinations available for opening and closing sonorities,
 - 8 5 1 none other may be used, not usable in parallel motion.

Note: Do not use the combination 6 or 5.

5 6

Chord Substitutions

A chord substitution (also called a "chord sub" or "sub") is the use of one or more chords in place of another in a chord progression (series of chords), with the object of ending in a cadence. A cadence is the 2 chords which make up the end of the progression, the last one and the chord immediately before and resolving to it, such as G7 to C. Let's review the rules for chord progressions, from which come the chord substitutions to these rules:

General Rules for Chord Progressions

- 1. Any chord may follow the "I" chord (the Tonic, in key of C= C)
- 2. Any I may be preceded by its V7 ("Perfect Cadence"= G7 C)
- 3. Any V7 may be preceded by its V7 (the "V of V" = D7 G7 C)
- Any V7 may be prec. by its Ilm7 (the "Il of V" = Dm7 G7 C)
- 5. Any Ilm7 may be prec. by its V7 (the "V of II" = A7 Dm7 G7 C)
- Ilm7 V7 may be repeated (F#m7 B7 Em7 A7 Dm7 G7 C)
- Ilm7 V7 should move from relatively strong to relatively weak beats or bars (Ilm7 on odd beat or bar, V7 on even beat or bar)

Rules #2 thru 6 above are illustrated in the accompanying flow chart "Flow-chart of 104 Chord Substitution Possibilities".

Cadences

The most common cadence is V7 – I, or G7 C in the key of C. The V7 chord is called the Dominant, and the I chord is the Tonic. The Tonic is the main *key* of the song, especially the key of the ending. Around 95% of all songs use the Perfect Cadence, including blues, country, rock, pop, classical and jazz.

The "Sub I" (Substitute I) cadence is Db7 C (Db7 is the b5 sub for G7). The "V" (Five) cadence resolves to the V from its V, or D7 G7 C (D7 is the V of G7, which is the V of C). The "sub V" (Substitute V) cadence is D7 Db7 C, since D is the C7 C0 is the C7 C1 which is the V of C7 C2. Tritone substitution.

The third cadence is the "II" (Two), or D7 Gm7, ending in C. The "Sub II" is D7 Dbm7, since Dbm7 is the b5 sub of Gm7, also a tritone substitution.

To review the cadences:

I = G7 C sub I = G7 Gb V = D7 G7 C sub V = D7 Db7 C II = Dm7 G7 C sub II/V = Abm7 Db7 C

Harmony

To understand chords and chord subs, one must understand *Harmony*, which is the study of *pitches*, and chords made up of those pitches. It's the "vertical" aspect of music, the notes of the chord going up and down on the *staff*, whereas *melody* is the "horizontal." The distance between two pitches is called an *interval*.

Different traditions of music composition, performance and theory have their own specific rules of harmony. The most basic chord is made of the *root*, the *minor* or *major third*, and the fifth (a C or Cm chord in the in the key of C= C, Eb or E, and G).

Extended chords include the major 7, Dominant 7 (flat 7), 9th, 11th, and 13th chords (Cmaj7, C7, C9, C11, C+11, C13), and all combinations thereof.

Altered chords have a b5, #5, b9, and/or a #9 replacing the regular 5th or 9th degree of the scale, and all combinations thereof.

Extended and Altered chords can have elements of both in them (such as C13b5).

Tension chords include sus2, sus4, add6, add9, and add6/9.

Passing chords, good for making difficult key or chord changes, are C+ (Augmented) and C° (diminished). Feel free to mix and match these chords. At the end of the day, the only rule for chords is that it has to sound good. Honest.

Why Chord Subs?

Chord subs allow movement, variety, hipness, character, or make a certain melody work. It is used as a songwriting technique, and for composing songs, endings, and solos. It is used in jazz, pop, musicals, blues and folk. Chord subs can be used for very cool *turnarounds* in any music, usually blues, jazz and pop. Chord subs are so hip, even Bach used them, thereby violating the rules of contemporary harmony of his day.

The sub chords usually have some notes in common with the original chords, such as in a tritone substitution where the sub shares the 3 and the b7 with the original chord (C7 and Gb7 share the E and the Bb notes, E is the 3 in C and the b7 of the Gb, vice-versa for the Bb).

Or the sub could be the *Relative Minor* or *Relative Major* of the original chord (Am for C or C for Am). Or a Minor Chord a major third up from a Major chord (Em for C).

In fact, **any** chord may be substituted for **any other** chord as long as the new chord supports the *melody*. Subs are used in jazz music to give a song sophisticated harmony. It is also commonly used to make for easier fingering transitions, such as the late great Joe Pass would use in a chord melody song on guitar.

For example, chord subs can provide smoother *voice leading*. Using the tritone substitution, the roots of the "Dm7 G7 Cmaj7" progression move down *chromatically* by half-steps as "Dm7 Db7 Cmaj7," instead of ascending *Fourths* as D G C does. It sounds so much better, especially on guitar.

Another example of chord subs is that the common chord progression "Am7 Cmaj7" could be played as "Am7 D7 Dm7 G7 Cmaj7" or "Am7 Ab7 Abm7 Db7 Cmaj7". Chord substitution rules also allow Gb to sub for C in the examples above, therefore "Am7 D7 Dm7 G7 Gbmaj7" or "Am7 Ab7 Abm7 Db7 Gbmaj7".

There are certain *rules* governing how chord subs work, and there are many rules from many different sources (namely, arrangers, composers, and musicians). One model, the chart on Page 8, has 8 rules which yield 64 possible chord progressions using just 5 chords. Combine with the rules that allow many Extended and Altered chords, and the number of possible chord progressions from just those five chords is 3,584! Other chord sub concepts involve tritone substitutions, *omitted/added root substitutions*, *circle progression additions*, *planing*, and *reharmonization*.

Despite all the rules, it is not an exact science, but rather more of a black art. Feel free to create your own subs and rules. Remember, as long as it sounds good to **your** ear, it's fine!

The **omitted/added root substitution rule** exchanges the root of the given chord for a root a third or fifth higher (occasionally lower.) The substituted chord still retains several pitches of the original, implying the same harmony, but can also point toward different directions, both in key and function. Therefore, Cmaj7 (with the notes C E G B) becomes Em (with the notes E G B, all that is omitted from the original Cmaj7 is the C, the root, usually played by the bass anyway). Or G (G B D) can substitute, but not always as well, due to the D (the 2nd/9th of C).

Short **circle progression additions**, usually *Circle of Fourths* and being fundamental to the structure of many traditional jazz compositions, may be inserted as turnarounds, or used as a series of substitute chords in specific parts of a song towards the end of the A section (first part or verse), or may form the basis of the B section (the second part or *chorus*). Such as "C E7 A7 D7 G7 C" or "C A7 D7 G7 C."

Planing (or "stepping-in" or "sliding-in") is used by both *improvisers* and *arrangers*. It refers to the technique of *sliding* a chord (or just a chord *tone*) up or down *chromatically* (one-half step), maintaining the shape and voicing of the chord. For example, F7 (F A C Eb) could slide up to become

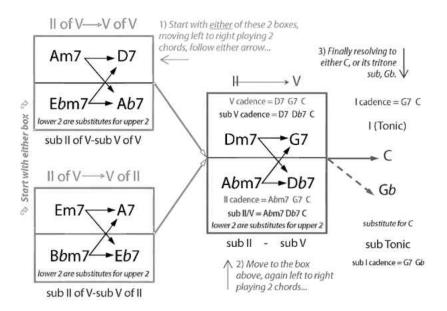
Gb7 (Gb Bb Db E). Each note has been "planed" up a half-step. The planing chord is **always** a short-duration passing chord.

Planing is used by arrangers to reharmonize melodic passing tones which might clash with the existing harmony. As well, improvisers use planing effectively, typically as part of a progression. Not all the planed notes must be played at the same time. Most of the chord tones can sound before the melody note, or vice-versa, so that the note that clashes with the melody won't.

Reharmonization is the taking of an existing melody and altering the harmony which accompanies it, using chord subs. Typically, a melody is reharmonized to provide musical interest or variety. Also, it is often used to introduce a new section in the music, such as a *coda* or *bridge*. Reharmonizations involve not just a single melody note, but the whole melodic line. As a result, there are often several melodic tones which might occur over a harmony, and all must be considered when reharmonizing. The melody note is usually the top note of the harmony.

Arrangers might even use highly *dissonant* chords when reharmonizing, however it requires a good ear and thorough understanding of harmony. Reharmonization by adding notes works best when the new notes are *diatonic* (scale-wise).

Flow-chart of 104 Chord Substitution Possibilities



Notes, Spelling and Pronunciations of 74 Different "C" Chords

Basic "C" chords

C = 1 3 5 - C E G "C major" or "C"

C (no 3) = 15 - CG "C power chord"

Cm = 1 b3 5 - C Eb G "C minor"

C6 = 136 - CEA "C six"

Cmaj7 = 1 3 5 7 - C E G B "C major seven"

C7 = 135b7 - CEGBb "C seven"

Cm7 = 1 b3 5 b7 - C Eb G Bb "C minor seven"

Cm6 = 1 b3 5 6 - C Eb G A "C minor six"

CmMaj7 = 1 b3 5 7 - C Eb G B "C minor major seven" or "C minor major"

Extended "C" chords

C9 = 1 3 5 b7 9 - C E G Bb D "C nine"

C11 = 1 3 5 b7 9 11 - C E G Bb D F "C eleven"

C13 = 1 3 5 b7 9 13 - C E G Bb D A "C thirteen"

C6/9 = 1 3 5 6 9 - C E G A D "C six nine"

C7/6 = 1356b7 - CEGABb "C seven six"

Cm9 = 1 b3 5 b7 9 - C Eb G Bb D "C minor nine"

Cm6/9 = 1 b3 5 6 9 - C Eb G A D "C minor six nine"

Cm11 = 1 b3 5 b7 9 11 - C Eb G Bb D F "C minor eleven"

Cm11 (no 5) = 1 b3 b7 9 11 - C Eb Bb D F "C minor eleven no five"

CmMaj7/9 = 1 b3 5 7 9 - C Eb G B D "C minor nine major seven"

CmMaj7/11 = 1 b3 5 7 9 11 - C Eb G B D F "C minor eleven major seven"

Cmaj7/6 = 1 3 5 6 7 - C E G A B "C major seven six"

Cmaj9 = 1 3 5 7 9 - C E G B D "C major nine"

Cmaj11 = 1 3 5 7 9 11 - C E G B D F "C major eleven"

Cmaj13 = 1 3 5 7 9 13 - C E G B D A "C major thirteen"

Altered "C" chords

 $C^{\circ} = 1 b3 b5 bb7 - C Eb Gb A "C diminished" or "C dim"$

C+ = 1 3 #5 b7 - C E G# Bb "C augmented" or "C aug"

C#9b13 = 1 3 5 b7 #9 b13 - C E G Bb D# Ab "C raised nine flat thirteen"

C+b9 = 1 3 #5 b7 b9 - C E G# Bb Db "C aug flat nine"

C+#9 = 1 3 #5 b7 #9 - C E G# Bb D# "C aug raised nine"

C+9 = 1 3 #5 b7 9 - C E G# Bb D "C aug nine"

C+9/11 = 1 3 5# b7 9 11 - C E G# Bb D F "C aug nine eleven"

C+11 = 1 3 #5 b7 9 11 - C E G# Bb D F "C aug eleven"

C+11/13 = 1 3 #5 b7 9 11 13 - C E G# Bb D F A "C aug eleven thirteen"

C+6/9/11 = 1 3 5# 6 9 11- C E G# A D F "C aug six nine eleven"

C+#9b13 = 1 3 #5 b7 #9 b13 - C E G# Bb D# Ab "C aug raised nine flat thirteen"

C+b9b13 = 1 3 #5 b7 b9 b13 - C E G# Bb Db Ab "C aug flat nine flat thirteen"

C+maj7 = 1 3 #5 7 = C E G# B "C aug major seven"

Cb5 = 13b5 - CEGb "C flat five"

Cb5#9 = 1 3 b5 b7 #9 - C E Gb Bb D# "C flat five raised nine"

Cb5b9 = 1 3 b5 b7 b9 - C E Gb Bb Db "C flat five flat nine"

Cb5#9b13 = 1 3 b5 b7 #9 b13 - C E Gb Bb D# Ab "C flat five raised nine flat thirteen"

Cb5b9b13 = 1 3 b5 b7 b9 b13 - C E Gb Bb Db Ab "C flat five flat nine flat thirteen"

C6#11 = 1 3 5 6 9 #11 - C E G A D F# "C six raised eleven"

C7b5 = 1 3 b5 b7 - C E Gb Bb "C seven flat five"

C7b5#9 = 1 3 b5 b7 #9 - C E Gb Bb D# "C seven flat five raised nine"

C7b5b9 = 1 3 b5 b7 b9 - C E Gb Bb Db "C seven flat five flat nine"

C7b5b9b13 (no 3) = 1 b5 b7 b9 b13 - C Gb Bb Db Ab "C seven flat five flat nine flat thirteen no three"

C9b5 = 1 3 b5 b7 9 - C E Gb Bb D "C nine flat five"

Cb9 = 1 3 5 b7 b9 - C E G Bb Db "C flat nine"

C#9 = 1 3 5 b7 #9 - C E G Bb D# "C raised nine"

Cb9b13 = 1 3 5 b7 b9 b13 - C E G Bb Db Ab "C flat nine flat thirteen"

C#11/13 = 1 3 5 b7 9 #11 13 - C E G Bb D F# A "C thirteen raised eleven"

C13#9 = 1 3 5 b7 #9 13 - C E G Bb D# A "C thirteen raised nine"

C13b5 = 1 3 b5 b7 9 13 - C E Gb Bb D A "C thirteen flat five"

C13b5#9 = 1 3 b5 b7 #9 13 - C E Gb Bb D# A "C thirteen flat five raised nine"

C13b5b9 = 1 3 b5 b7 b9 13 - C E Gb Bb Db A "C thirteen flat five flat nine"

C13b9 = 1 3 5 b7 b9 13 - C E G Bb Db A "C thirteen flat nine"

Cm+ = 1 b3 #5 b7 - C Eb G# Bb "C minor aug"

Cm7b5 = 1 b3 b5 b7 – C Eb Gb Bb "C minor seven flat five" or "C halfdiminished"

(also can be thought of as a Ab9 chord)

Cm7b5/11 = 1 b3 b5 b7 9 11 – C Eb Gb Bb D F "C minor seven flat five eleven"

Cm9+ = 1 b3 #5 b7 9 - C Eb G# Bb D "C minor aug nine"

Cm9b5 = 1 b3 b5 b7 9 - C Eb Gb Bb D "C minor nine flat five"

CmMaj7b13 = 1 b3 5 7 9 b13 - C Eb G B D Ab "C minor major seven flat thirteen"

Cmaj7#11/13 = 1 3 5 7 9 #11 13 - C E G B D F# A "C major seven raised eleven thirteen"

Tension "C" chords

Csus = 1 4 5 - C F G "C suspended" or "C sus"

Csus2 = 1 2 5 - C D G "C suspended two"

Csus6 = 146 - CFA "C suspended six"

Cadd6 = 1 3 5 6 - C E G A "C add six"

Cadd6/9 = 1 3 5 6 9 - C E G A D "C add six nine"

Cadd9 = 1 3 5 9 - C E G D "C add nine"

Cm6add9 = 1 b3 5 6 9 - C Eb G A D "C minor six add nine"

C7sus = 1 4 5 b7 - C F G Bb "C seven suspended"

C9sus = 1 4 5 b7 9 - C F G Bb D "C nine suspended"

Cm9sus = 1 b3 4 5 b7 9 - C Eb F G Bb D "C minor nine suspended"

Exercises and Demonstrations

The following pages are exercises for Jazz Arranging methods.

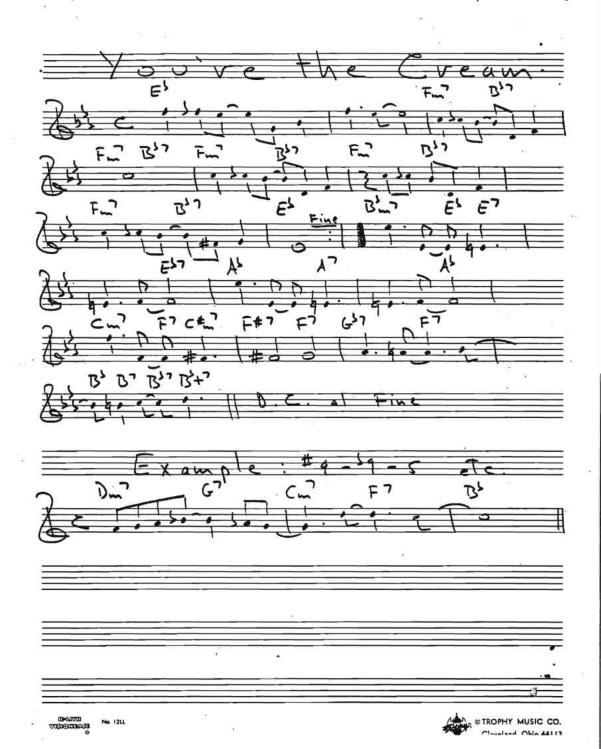
These include...

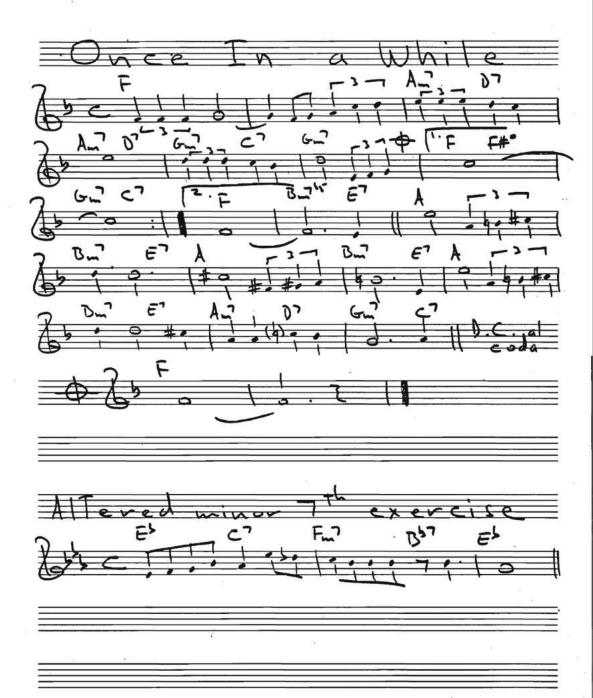
Additions to 4-way Harmonization
Drop 2
Four-way Close
Dim-Chro Approaches
Delayed Resolve
Alternate Voicing
3-way Harmonization
Sax Spreads
Anticipation

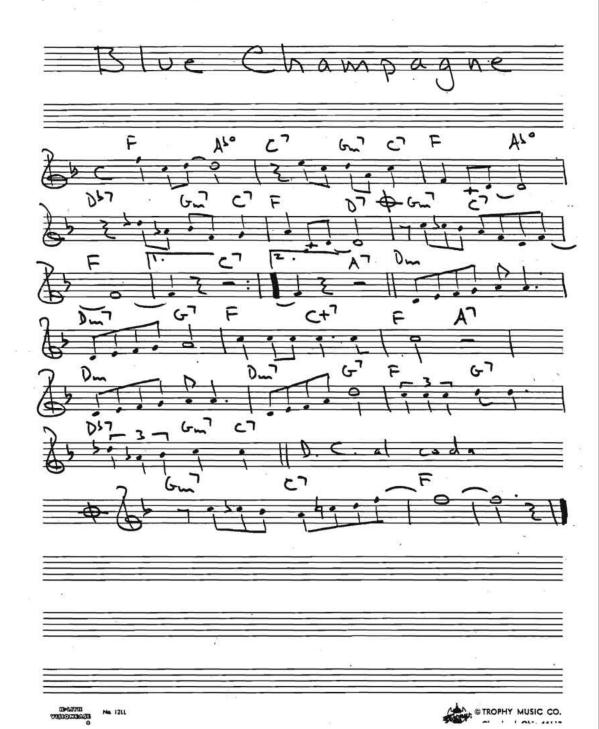
Plus Demonstrations of many of these concepts (look for "Demo").

Next to many of the Jazz Arranging exercises are capital letters. Those correspond to the applicable Rule in the section for that Exercise ("Add. 4-way A, B, C, D" means that the exercise is for Rules A through D in the section "Additions to 4-way Harmonization."

Note: "Original" refers to the arrangement.









Add to 4 may A-6





Na 1211

STROPHY MUSIC CO. Cleveland, Ohio 44113





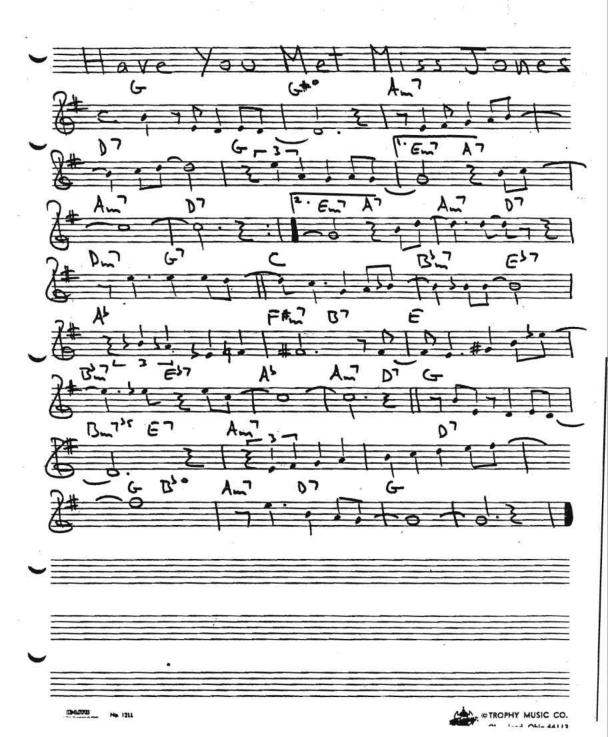


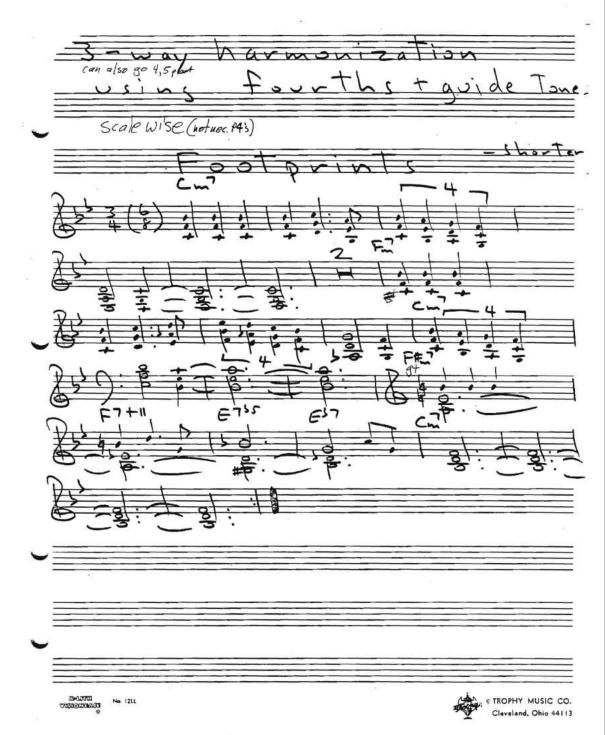
© TROPHY MUSIC CO. Cleveland, Ohio 44113

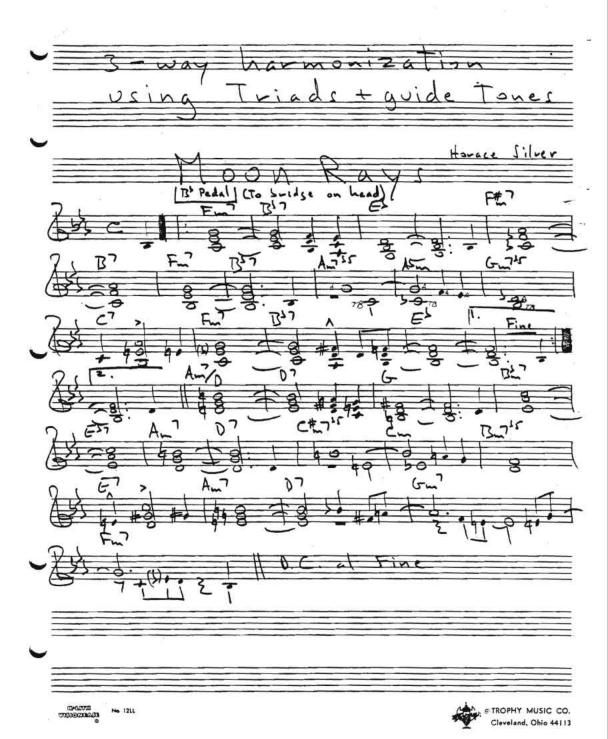


A PT

© TROPHY MUSIC CO. Cleveland, Ohio 44113







Four-way Close Demo.



fotom Leves 4-way close P.Z





Atoms Leaves Drop-2 P.Z



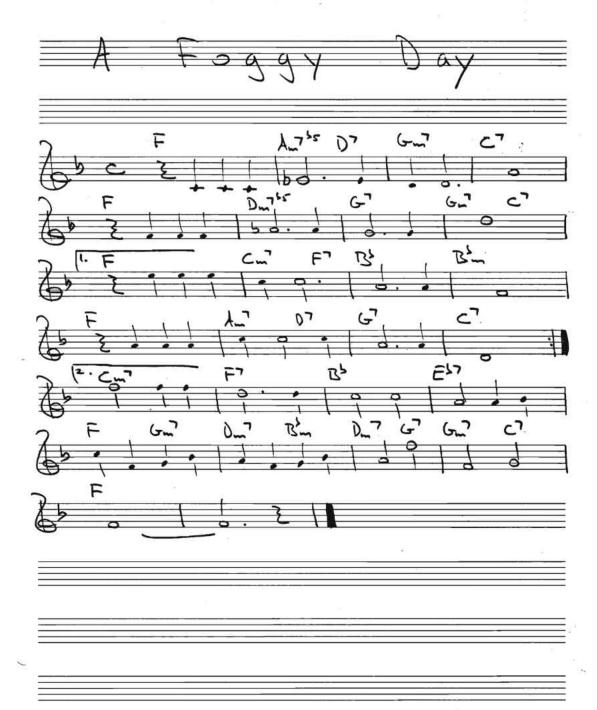
Anticipation b-15:201 (?)

701



- 701 - 701









TROPHY MUSIC CO. Cleveland, Ohio 44113



