

## FUNCTIONAL HARMONY

We will be using (at least) four-note chords (7th chords), as the “bare” triads” are insufficient for jazz.

DIATONIC HARMONY – Building 7<sup>th</sup> chords on each scale degree:

CMaj7      Dm7      Em7      FMaj7      G7      Am7      Bm7b5

I      ii      iii      IV      V      vi      vii

**M**      **m**      **m**      **M**      **x**      **m**      **ø**

There are 5 types of chords:

Type of Chord	Referred to as	Notated <sup>1</sup>	Found diatonically on
Major, M7	“Major”	<b>M</b>	I, IV
Major, m7	“Dominant”	<b>x</b>	V
Minor, m7	“Minor”	<b>m</b>	ii, iii, vi
Dim, m7	“Half-diminished”	<b>ø</b>	vii
Dim, °7	“Diminished”	<b>o</b>	vii in harmonic minor

Adding 9, 11, 13 to the chords, will be regarded as “colors” (Mehegan = “sensitive notes”), will NOT change the basic FUNCTION of the chord

Alterations of the chord notes

- 4 = suspended 4<sup>th</sup>, replaces the 3<sup>rd</sup>
- #5, b5 = modifications of the 5<sup>th</sup>
- 6 = M6 added instead of M7
- 8 = chord with no 7<sup>th</sup>, the root is doubled
- #7 = M7 on a minor chord

<sup>1</sup> The denominations M, x, m, ø, o come from Mehegan; other ways of describing the 7<sup>th</sup> chords might be: MM7 (major 7<sup>th</sup>), Mm7 (dominant 7<sup>th</sup>), mm7 (minor 7<sup>th</sup>), om7 (half-diminished 7<sup>th</sup>), oo7 (diminished 7<sup>th</sup>) – Turek p.43

### ***Translation of Chords from a chart to Harmonic Functions***

- If a chord is Diatonic (belongs to the key) then the roman numerals are sufficient, without specifying the type of chord and 7<sup>th</sup>.  
Ex: I = Maj chord with M7, II = minor chord with m7, etc
- A change of the TYPE of chord, that is not diatonic in the key, will be specifically notated.  
Ex: Ix = dominant chord on I, IIø = half-dim chord on II, etc
- If the ROOT of the chord is altered, it will be notated with the alteration symbol before the roman number; ATTN: if the chord type is the same as the chord without alteration, then adding of M,x,m... etc, will not be necessary  
ex: #I = C#Maj7; #Ix = C#7; bIII = Ebm7; bIIIx = Eb7

Another example:

Cmaj7	D7	Dm7 G7	Em7 Ebm7	Dm7 Db7	Cmaj7
I	IIx	II V	III bIII	II bIIx	I

### ***The 60 chord system in root position***

- practice with both hands
- go down the columns first. Ex: CM, Cx, Cm, Cø, Co; DbM, Dbx, etc.
- memorize the chords so you can play them without reference to the sheet
- practice by Random Chords sheet
- practice by II-V-I sheet

# THE SIXTY CHORD SYSTEM - root position

	C	Db	D	E $\flat$	E	F
M						
x						
m						
ø						
o						
	C	Db	D	E $\flat$	E	F

	G $\flat$	G	A $\flat$	A	B $\flat$	B
M						
x						
m						
ø						
o						
	G $\flat$	G	A $\flat$	A	B $\flat$	B

# RANDOM CHORDS

Bbm7	Fdim	F#m7	EbMaj7	G#dim	C#dim
CMaj7	G7	D7	Eb7	Bm7	C#m7b5
GMaj7	F#7	G#m7b5	C#m7	Bdim	DMaj7
AbMaj7	F#m7b5	Em7b5	Cm7	Ebdim	DbMaj7
Db7	BMaj7	G#m7	Cm7b5	Bbm7b5	Em7
F#dim	F7	Cdim	Adim	AMaj7	Am7b5
FMaj7	Gm7	Am7	Bm7b5	Bbdim	Edim
Ddim	Dm7b5	BbMaj7	B7	Fm7b5	Bb7
GbMaj7	Ebm7	Dm7	E7	Gm7b5	A7
Ab7	Ebm7b5	C7	Gdim	EMaj7	Fm7

Press Space Bar to re-generate

# RANDOM CHORDS

Db7	Em7	EbMaj7	G#m7	Em7b5	F#m7b5
Ebdim	BMaj7	GMaj7	Bm7b5	Am7	Bbm7b5
CMaj7	Fm7	F#7	C#m7b5	Gm7b5	Adim
Gdim	FMaj7	DbMaj7	C#dim	GbMaj7	Bm7
BbMaj7	Bbdim	AMaj7	F#dim	F#m7	Fm7b5
AbMaj7	Dm7b5	Bb7	G#m7b5	C#m7	Ddim
G7	E7	G#dim	Cm7	Am7b5	Bdim
Ab7	B7	A7	EMaj7	Ebm7	Edim
F7	Gm7	Eb7	Fdim	C7	Ebm7b5
Cm7b5	Dm7	Bbm7	D7	Cdim	DMaj7

Press Space Bar to re-generate

# RANDOM CHORDS

CMaj7	DbMaj7	F#m7	Gm7	Gdim	F7
E7	F#dim	Ebm7	Bb7	C#m7	G#m7
Em7b5	C7	G7	B7	Cm7	AbMaj7
G#dim	BMaj7	Em7	G#m7b5	Dm7	DMaj7
EbMaj7	Bbm7b5	C#dim	Ebdim	Ebm7b5	BbMaj7
AMaj7	FMaj7	Bbm7	Fdim	Dm7b5	Gm7b5
Edim	D7	Cdim	Bbdim	F#m7b5	Cm7b5
GMaj7	Db7	Fm7b5	Fm7	EMaj7	C#m7b5
Am7	Bm7b5	Ddim	Am7b5	Bm7	Eb7
F#7	A7	Bdim	GbMaj7	Ab7	Adim

Press Space Bar to re-generate

# RANDOM CHORDS

Eb7	FMaj7	Ebdim	Ebm7b5	Bb7	Fm7
Bm7b5	Edim	Ddim	F#7	EbMaj7	Gm7
F7	Dm7b5	EMaj7	E7	F#dim	AMaj7
F#m7b5	AbMaj7	C7	Adim	D7	Gdim
G#m7	B7	Ebm7	Fm7b5	CMaj7	Bbm7
GbMaj7	Fdim	Cm7	Gm7b5	A7	Bbm7b5
G#m7b5	Em7b5	Db7	DbMaj7	C#m7b5	Cdim
G#dim	Bdim	Dm7	C#dim	Em7	Am7
G7	BbMaj7	DMaj7	Bbdim	Ab7	BMaj7
Cm7b5	C#m7	Bm7	F#m7	GMaj7	Am7b5

Press Space Bar to re-generate

## II-V-I in Major Keys

Dm7	G7	CMaj7
Cm7	F7	BbMaj7
Bbm7	Eb7	AbMaj7
Abm7	Db7	GbMaj7
F#m7	B7	EMaj7
Em7	A7	DMaj7
Ebm7	Ab7	DbMaj7
C#m7	F#7	BMaj7
Bm7	E7	AMaj7
Am7	D7	GMaj7
Gm7	C7	FMaj7
Fm7	Bb7	EbMaj7



# II-V-I in Major Keys

(iReal b)

Dm7	G7	CMaj7
Gm7	C7	FMaj7
Cm7	F7	BbMaj7
Fm7	Bb7	EbMaj7
Bbm7	Eb7	AbMaj7
Ebm7	Ab7	DbMaj7
Abm7	Db7	GbMaj7
C#m7	F#7	BMaj7
F#m7	B7	EMaj7
Bm7	E7	AMaj7
Em7	A7	DMaj7
Am7	D7	GMaj7

## INVERSIONS

There are 3 inversions + Root position to the 7<sup>th</sup> chords, but, to simplify things, we will only use Root positions and Second inversions on all chords

**Learn the 60 chord system in 2<sup>nd</sup> inversion, like for the root position**

- practice with both hands
- go down in columns first
- memorize
- play them by the random sheet

***Combining the Root position with the 2<sup>nd</sup> inversion when playing***

This is typical for a pianist playing in a group; left hand plays the chords in the octave below the middle C. Right hand can be then used for playing the melody, improvising, filling in, or to double the Root and the 5<sup>th</sup> of the chords.

The goal is to go to the closest notes from one chord to another, keeping the common notes if possible

The image shows two musical staves illustrating the II-V-I progression for Dm7, G7, and CMaj7. The top staff shows the root position (I) for each chord, and the bottom staff shows the second inversion (II) for each chord. The bass clef is used for both staves.

Chord	Root Position (I)	Second Inversion (II)
Dm7	F2, A2, B2, D3	B2, D3, F3, A2
G7	B2, D3, F3, G3	D3, F3, B2, G3
CMaj7	C3, E3, G3, Bb3	E3, G3, C4, Bb3

Rules are:

- if the roots of the chords are a 4<sup>th</sup> apart → SWITCH position
- if they are a 2<sup>nd</sup> apart → KEEP position
- if they are a 3<sup>rd</sup> apart → your choice... Switch or Change

exception: in order to avoid playing too low or too high, the rules above can be broken at the end of phrases – beginning of a new phrase

For beginners: **the One-Choice 60 chord chart of root positions and 2<sup>nd</sup> inversions**

**Play the 60 chord system in Root Pos. and 2<sup>nd</sup> inversion by the II-V-I sheet**

# THE SIXTY CHORD SYSTEM - 2nd inversion

	C	Db	D	Eb	E	F
M						
x						
m						
ø						
o						
	C	Db	D	Eb	E	F

	Gb	G	Ab	A	Bb	B
M						
x						
m						
ø						
o						
	Gb	G	Ab	A	Bb	B

THE SIXTY CHORD SYSTEM - inverted (ONE CHOICE)

	C	Db	D	Eb	E	F
M						
x						
m						
ø						
o						

	C	Db	D	Eb	E	F
M						
x						
m						
ø						
o						
	Gb	G	Ab	A	Bb	B

## LEAD SHEET CHORD ADJUSTMENT

The original release of most of jazz piece was in a piano arrangement. Chord changes were adapted and thought out for that purpose, sometimes beautifying the melody. These changes were then carried over to the lead sheet by a zealous transcriber...

In order to make the chart more “improvisation-friendly”, look for and fix the following common faults:

- unprepared dominant chords
  - o V (on 4 beats) => II V
- incomplete patterns
  - o I / II V => I VI / II V
  - o III VI / V => III VI / II V
- interrupted patterns
  - o III bIIIx / ii V / I => III bIIIx / II bIIx / I
  - o III VI / II bIIx / I => III VI / II V / I
  - o Vi VI6 / VII IIIx / VI => VI #IVø / VII IIIx / VI
- key changes not indicated by key signature change
  - o the presence of a Major chord on another degree than I or IV denotes a change of key
- additional chords for melodic adjustment
  - o sometimes chords are introduced in the sheet music to accommodate the melody. If there are more than 2 chords per measure this might be the case. Eliminate the un-necessary chords
- misspelled inversions
  - o chords might not reflect inversions present in the written bass.  
Ex: Cm6 with an A in the bass is Aø
- style considerations
  - o generally, Swing/Bop will use fifth progressions (III-VIx-II-V-I) while Bossa-Nova will use triton substitutions for the same progression, to create chromatic changes such as III-bIIIx-II-bIIx-I
  - o
- changes can also be simplified for the solo only, to make it easier to improvise on
  - o II V / II V => II / V (Satin Doll, Perdido, Lover man)