

# Chord Construction (Formulas) and Symbols

## *Reference Page*

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9 = 2

11 = 4

13 = 6

### MAJOR (crucial note: 3)

<u>Spoken Name</u>	<u>Formula</u>	<u>Written Symbol</u>
(major)	1,3,5	none
(major) 6th	1,3,5,6	6
(major) add 9th	1,3,5,9	add9 or /9
(major) 6/9th	1,3,5,6,9	6/9 or <sup>6</sup> / <sub>9</sub>
major 7th	1,3,5,7	Δ7, 7, or maj.7
major 9th	1,3,5,7,9	Δ9, 9, or maj.9
major 13th	1,3,5,6,7,9	Δ13, 13, or maj.13
also called:		
major 9/6th	1,3,5,6, 7,9	Δ9/6, 9/6, or maj.9/6
major 7/6th	1,3,5,6,7	Δ7/6, 7/6, or maj.7/6

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Any of the above chords may also have a *raised* (sharped) 11th included.  
The symbol for this tone is: +11, #11, or aug.11

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A regular 11th may also be added to some of the first grouping above.

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Suspended (4th)	1,4,5	sus(4)
sus2	1,2,5	sus2
add9sus	1,4,5,9	add9sus or /9sus

Only in some voicings, otherwise it is just heard a 4th higher:

6/9sus	1,4,5,6,9	6/9sus
6sus	1,4,5,6	6sus

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The 5th may be sharped in many major types, or a #5 may be added if voiced in certain ways.  
This #5 is then possibly seen as a b6 or b13

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**MINOR** (crucial note: b3 [-3] )

<b><u>Spoken Name</u></b>	<b><u>Formula</u></b>	<b><u>Written Symbol</u></b>
minor (triad)	1,b3,5	m or min., also (-)
minor 7th	1,b3,5,b7	m7 or -7
minor7 add11th	1,b3,5,b7,11	m7/11 or -7/11
minor 9th	1,b3,5,b7,9	m9 or -9
minor 11th	1,b3,5,b7,9,11	m11 or -11

Occasionally the 13th may be added to any of the above chords.

minor 6th	1,b3,5,6	m6
minor 6/9th	1,b3,5,6,9	m6/9
minor 6 major 7th	1,b3,5,6,7	m6 <sup>Δ</sup> 7, m6/7, or m6 <sup>♯</sup> 7
minor 6/9 major 7th	1,b3,5,6,7,9	m6/9 <sup>Δ</sup> 7, m6/9/7, or m6/9 <sup>♯</sup> 7

Occasionally the 11th or raised 11th may be added to the above chords. Likewise to the following:

minor-major 7th	1,b3,5,7	m <sup>Δ</sup> 7, m7, or m <sup>♯</sup> 7
minor-major 9th	1,b3,5,7,9	m <sup>Δ</sup> 9, m9, m7/9 or m <sup>♯</sup> 7/9
minor add 9th	1,b3,5,9	m add9 or m/9th

The 11th or +11th may be added.

minor 7 b5th (half diminished 7th)	1,b3,b5,b7	m7b5 or <sup>ø</sup> 7
minor 7/11 b5th	1,b3,b5,b7,11	m7/11b5
minor 9 b5th	1,b3,b5,b7,9	m9b5
minor 11 b5th	1,b3,b5,b7,9,11	m11b5

1) The 13th may be added to any of the above.

2) The b5th can act as a #11th if it is voiced high and/or voiced over a <sup>♯</sup>5th.

Example: m13+11 = 1,b3,(5),b7,9,+11,13

3) The #5th (b13th) may be added to the above.

minor 7 b9th	1,b3,5,b7,b9	m7b9
minor 11 b9th	1,b3,5,b7,b9,11	m11b9

The b5th or #11 may be added to these.

minor augmented	1,b3,#5	m+
minor 7th augmented	1,b3,#5,b7	m7+
minor 7/11th augmented	1,b3,#5,b7,11	m7/11+
minor add 9th augmented	1,b3,#5,9	m/9+
minor 9th augmented	1,b3,#5,b7,9	m9+

**DOMINANT** (crucial notes: 3 (or 4) and b7)

<u>Spoken Name</u>	<u>Formula</u>	<u>Written Symbol</u>	
(dominant) 7th	1,3,5,b7	7	} Regular extensions
(dominant) 9th	1,3,5,b7,9	9	
(dominant) 7/6th	1,3,5,b7,13	7/6	
(dominant) 13th	1,3,5,b7,9,13	13	

(dominant) 7th suspended	1,4,5,b7	7sus	} Suspended Dominants
(dominant) 9th suspended	1,4,5,b7,9	} 9sus; or 11	
(dominant) 11th	1,5,b7,9,11		
(dominant) 7/6th suspended	1,4,5,b7,13	7/6sus	
(dominant) 13th suspended	} 1,4,5,b7,9,13 1,5,b7,9,11,13	13sus (13/11)	
(dominant) 11/13th		11/13	
(dominant) (13/11th)			

The 3rd may be added on *top* of these chords, it then acts as a 17th, at least for notation's sake.

(dominant) 7+11th	1,3,5,b7,+11	7+11	} #11 Dominants (Overtone Dominants)
(dominant) 9+11th	1,3,5,b7,9,+11	9+11 or +11	
(dominant) 7/6+11th	1,3,5,b7,+11,13	7/6+11	
(dominant) 13+11th	1,3,5,b7,9,+11,13	13+11	

Remember that +11 may also be written as #11 or aug.11.

(dominant) 7#5th	1,3,#5,b7	7+, 7#5	} Altered Dominants (b5,#5,b9,#9)
(dominant) 7b5th	1,3,b5,b7	7b5, (7-5) (7+11)	
(dominant) 7#9th	1,3,5,b7,#9	7#9, 7+9	
(dominant) 7b9th	1,3,5,b7,b9	7b9, (7-9)	
(dominant) 7#9#5th	1,3,#5,b7,#9	7#9+, 7#9#5	
(dominant) 7#9+11th	1,3,5,b7,#9,+11	7#9+11 (7#9b5)	
(dominant) 7b9#5th	1,3,#5,b7,b9	7b9+, 7b9#5	
(dominant) 7b9+11th	1,3,5,b7,b9,+11	7b9+11 (7b9b5)	
(dominant) 13b9th	1,3,5,b7,b9,13	13b9	
(dominant) 13b9th+11th	1,3,5,b7,b9,+11,13	13b9+11	
(dominant) 9#5th	1,3,#5,b7,9	9+, 9#5	
(dominant) 11b9th	1,5,b7,b9,11	11b9	

- 1) There are many other dominant 7th type chords but they will have to wait for later.
- 2) #5 may be written as b13 when voiced high.

**DIMINISHED 7th** (crucial notes: b3 and b5)

<b><u>Spoken Name</u></b>	<b><u>Formula</u></b>	<b><u>Written Symbol</u></b>
Diminished 7th	1,b3,b5,bb7(6)	°7, (°), dim.
Diminished major 7th	1,b3,b5,(6),7	°Δ7, °7, or °maj.7
Diminished add 9th	1,b3,b5,(6),9	°(7)/9, °(7) add9
Diminished major 9th	1,b3,b5,(6),7,9	°Δ9, °9, or °maj.9
Diminished triad	1,b3,b5	°, dim.

There are quite a few other diminished family chords but they will be covered later.

**AUGMENTED** (crucial notes: 3 and #5)

<b><u>Spoken Name</u></b>	<b><u>Formula</u></b>	<b><u>Written Symbol</u></b>
Augmented	1,3,#5	+, aug.

There is a whole bizarre little family [of augmented chords]....

9=2  
11=4  
13=6

**MAJOR** (CRUCIAL NOTE: 3)  
WRITTEN SYMBOL

UPPER NAME	FORMULA	WRITTEN SYMBOL
(MAJOR)	1,3,5	none
(MAJOR) 6th	1,3,5,6	6
(MAJOR) ADD 9th	1,3,5,9	ADD 9 or /9
(MAJOR) 6/9th	1,3,5,6,9	6/9 or 6/9
MAJOR 7th	1,3,5,7	Δ7, 7 or MAJ.7
MAJOR 9th	1,3,5,7,9	Δ9, 9 or MAJ.9
MAJOR 13th	1,3,5,6,7,9	Δ13, 13 or MAJ.13
also called:		
MAJOR 9/6th	"	Δ9/6, 9/6 or MAJ. 9/6
MAJOR 7/6th	1,3,5,6,7	Δ7/6, 7/6 or MAJ 7/6

Any of the above chords may also have a RAISED (sharped) 11th included.

The symbol for this tone is:

+11, #11, or AUG. 11

A regular 11th may also be added to some of the 1st grouping above

SUSPENDED (4th) 1,4,5 SUS (4)

SUS 2 1,2,5 SUS 2

ADD 9 SUS 1,4,5,9 ADD 9 SUS or /9 SUS

6/9 SUS 1,4,5,6,9 6/9 SUS

ONLY IN SOME VOICINGS, OTHERWISE IT IS JUST HEARD A 4TH HIGHER

6 SUS 1,4,5,6 6 SUS

The 5th may be sharpened in many major types. Or a #5 may be added if voiced in certain ways. This #5 is then possibly seen as a b6 or b13

MINOR AUGMENTED 1, b3, #5 m+

MINOR 7th AUGMENTED 1, b3, #5, b7 m7+

MINOR 7/11th AUGMENTED 1, b3, #5, b7, 11 m7/11+

MINOR ADD 9th AUGMENTED 1, b3, #5, 9 m/9+ or m ADD 9+

MINOR 9th AUGMENTED 1, b3, #5, b7, 9 m9+

**MINOR** (CRUCIAL NOTE: b3 (-3))  
WRITTEN SYMBOL

UPPER NAME	FORMULA	WRITTEN SYMBOL
MINOR	1, b3, 5	m or also min. (-)
MINOR 7th	1, b3, 5, b7	m7 "
MINOR 7 ADD 11th	1, b3, 5, b7, 11	m7/11 "
MINOR 9th	1, b3, 5, b7, 9	m9 "
MINOR 11th	1, b3, 5, b7, 9, 11	m11 etc.
Occasionally the 13th may be added to any of the above chords.		
MINOR 6th	1, b3, 5, 6	m6
MINOR 6/9th	1, b3, 5, 6, 9	m6/9
MINOR 6 MAJOR 7th	1, b3, 5, 6, 7	m6 Δ7, m6/7 or m6 Δ7
MINOR 6/9 MAJOR 7th	1, b3, 5, 6, 7, 9	m6/9 Δ7, m6/9/7 or m6/9 Δ7

Occasionally the 11th or RAISED 11th may be added to the above chords. Likewise to the following:

MINOR MAJOR 7th 1, b3, 5, 7 m Δ7, m7 or m Δ7

MINOR MAJOR 9th 1, b3, 5, 7, 9 m Δ9, m9, m7/9 or m Δ7/9

MINOR ADD 9th 1, b3, 5, 9 m add 9 or m/9

The 11th or +11th may be added.

(± DIMINISHED 7th) MINOR 7#5th 1, b3, b5, b7 m7b5 or 7b7

MINOR 7/11b5th 1, b3, b5, b7, 11 m7/11b5

MINOR 9b5th 1, b3, b5, b7, 9 m9b5

MINOR 11b5th 1, b3, b5, b7, 9, 11 m11b5

1) The 13th may be added to any of the above.

2) The b5th can act as a #11th if it is voiced high 4 or voiced over a 4 5th.

EX: m13+11 = 1, b3, (5), b7, 9, +11, 13

3) The #5th (b13th) may be added to the above.

MINOR 7b9th 1, b3, 5, b7, b9 m7b9

MINOR 11b9th 1, b3, 5, b7, b9, 11 m11b9

The b5th or #11th may be added to these.

**DOMINANT 7th** (CRUCIAL NOTES: 3 (or 4) and b7)  
WRITTEN SYMBOL

UPPER NAME	FORMULA	WRITTEN SYMBOL
(DOMINANT) 7th	1, 3, 5, b7	7
" 9th	1, 3, 5, b7, 9	9
" 7/6th	1, 3, 5, b7, 13	7/6
" 13th	1, 3, 5, b7, 9, 13	13
" 7th SUSPENDED	1, 4, 5, b7	7 SUS
" 9th SUSPENDED	1, 4, 5, b7, 9	9 SUS; or 11
" 11th	1, 5, b7, 9, 11	
" 7/6th SUSPENDED	1, 4, 5, b7, 13	7/6 SUS
" 13th SUSPENDED	1, 4, 5, b7, 9, 13	13 SUS (13/11)
" 11/13th (13/11th)	1, 5, b7, 9, 11, 13	11/13
The 3rd may be added on top of these chords, if then acts as a 17th, at least for notation's sake.		
(DOMINANT) 7+11th	1, 3, 5, b7, +11	7+11
" 9+11th	1, 3, 5, b7, 9, +11	9+11 or +11
" 7/6+11th	1, 3, 5, b7, +11, 13	7/6+11
" 13+11th	1, 3, 5, b7, 9, +11, 13	13+11
Remember that +11 may also be written as #11 or AUG. 11		

UPPER NAME	FORMULA	WRITTEN SYMBOL
(DOMINANT) 7#5th	1, 3, #5, b7	7+, 7#5
" 7b5th	1, 3, b5, b7	7b5 (7-5) (7+11)
" 7#9th	1, 3, 5, b7, #9	7#9, 7+9
" 7b9th	1, 3, 5, b7, b9	7b9, (7-9)
" 7#9#5th	1, 3, #5, b7, #9	7#9+, 7#9#5
" 7#9+11th	1, 3, 5, b7, #9, +11	7#9+11 (7#9b5)
" 7b9#5th	1, 3, #5, b7, b9	7b9+, 7b9#5
" 7b9+11th	1, 3, 5, b7, b9, +11	7b9+11 (7b9b5)
" 13b9th	1, 3, 5, b7, b9, 13	13b9
" 13b9+11th	1, 3, 5, b7, b9, +11, 13	13b9+11
" 9#5th	1, 3, #5, b7, 9	9+, 9#5
" 11b9th	1, 5, b7, b9, 11	11b9

- There are many other dom. 7th type chords but they will have to wait for later.
- #5 may be written as b13 when voiced high.

**DIMINISHED 7th** (CRUCIAL: b3 and b5)  
NOTES

NAME	FORMULA	SYMBOL
DIMINISHED 7th	1, b3, b5, b6, 7 (6)	o7, (o), DIM
DIMINISHED MAJOR 7th	1, b3, b5, (6), 7	o Δ7, o7 or o MAJ.7
DIMINISHED ADD 9th	1, b3, b5, (6), 9	o(7)/9, o(7) ADD 9
DIMINISHED MAJOR 9th	1, b3, b5, (6), 7, 9	o Δ9, o9, o MAJ
DIMINISHED TRIAD	1, b3, b5	o, DIM

**AUGMENTED** (CRUCIAL NOTES: 3 and #5)

AUGMENTED 1, 3, #5 + AUG.  
There is a whole bizarre little family