## CHORD SYMBOLS

Chord symbols are used in jazz, pop/rock, folk music. In fact in most types of music except in classical music and there may even be some modern classical composers who use them. So if you can understand chord symbols, a whole new world of music will be open to you.

A chord symbol is a shorthand way of denoting what notes in whatever chord are to be played. They do not tell you how exactly to play it or in what range of the instrument to play it. That is up to the player to decide.

The most basic bit of information lies in the initial part of the symbol. This is the note on which the chord is built, called the root-note (or sometimes just the root). The root-note refers to any of the notes in a chromatic scale and is written with a capital letter, eg. C or C\#.
(Sometimes in a given key, Roman numerals are used instead, eg. IV indicates the fourth degree or step in the scale. This can show how each chord relates to the others. While this is useful for transposing purposes (changing the piece into another key), it is rather cumbersome to read.

Besides showing the root-note, the captal letter also informs you whether the chord is major or minor. Thus, $\mathbf{C}$ refers to a major chord, whereas $\mathbf{C m}$ (sometimes written as $\mathbf{C m i}, \mathbf{C m i n}$ or $\mathbf{C}-$ ) means that a minor chord is required.

The most basic form of chord is the triad. It consists of just 3 different notes (tri- means 3, as in tricycle). The lowest note is the root-note as already mentioned. The note above that is the third and the one above that is the fifth since chords are traditionally built out of thirds.

As major triads are taken from the notes in a major scale, the third note is called a major third. In the case of a C major triad, the third is the E. Note that there are 4 semitones between the C and the E: C-C\#, C\#-D, D-D\#, D\#-E.

The 2nd, 3rd, 6th and 7th notes of a major scale are all called major intervals (an interval is the distance between two notes).
The 4th, 5th and octave (8th note) occur in both major and minor scales.
They are all called perfect intervals.
To make up the full major triad you need to add a perfect fifth to the root and the major third, for example the C major triad consists of C E G.
Note that there are 7 semitones between the C (the root-note) and G (the perfect fifth).

A triad can be in root-position or inverted to form the first and second inversions. Root-position means that the root-note is on the bottom. To get to the first inversion, you put the root-note an octave higher so that the lowest note is now the major 3rd. Similarly to get the second inversion you then put the 3rd up an octave so that the perfect fifth is now on the bottom. Or you may find it quicker to find the 2nd inversion if you start with the root-position and then place the highest note at the bottom.


When a chord has a note other than the root at the bottom it is indicated by a slash. This can be as shown in the second and third bars or it may look like this $C / E$ and $C / G$.
(In figured bass notation used in early classical music the root-position is called a 53, the 1st inversion a 63 and the 2nd inversion a 64. Unless you come from a classical background, this need not concern you.)

To get a bigger chord using just the 3 notes of a triad, you can double any of them, provided that you keep the lowest note the same. You need not double them all, in fact you can leave out notes too as long as the 3 essential notes are played somewhere.

You can also play the chord anywhere on the keyboard. You will find that the lower you get, the further away you have to put the notes, whereas the notes can be quite close to one another higher up.

note treble stave

If the chord sound too muddy you can often rectify it by moving the major third up an octave.

The chord need not be played all at once - it can also be played in a variety of ways as arpeggios, eg.


You could also play this an octave lower in your left hand. There is no limit to the different ways arpeggions can be played - use your imagination.

In the left hand, the chord can also be played by playing the lowest note first with the chord coming next.
some examples


There are 12 major triads in all. Here are 6 of them. Play them, remember the notes - play inversions of them and play them as chords of different sizes in different parts of the keyboard and play them as arpeggios.
[he first 3 have only white notes

the next 3 have 1 black note
note where the sharp comes


For some of these the 2 nd inversion is shown an octave lower
to avoid all the leger lines - play the notes in brackets using the octave below as a guide

## Exercises

Play these chords with your right hand, left hand or both.

1. $|E \quad A| D \quad G|C \quad F| G \quad C \mid$
2. | $D \quad D / F \#|G \quad E / G \#| D / A \quad A|D \quad|$ (the note after the / is the bass note)
3. $\left\lvert\, \begin{array}{ll}F / C \quad C|F / A \quad C / G| F \quad C / E|G / D \quad C|\end{array}\right.$
4. practice the major scales and arpeggios of $D, G, F, D, E$, and $A$ (see later pages). Practice them SLOWLY and play each one only once. Make them as smooth as possible and keep it in time.

## PART 2

Here are the remaining six major triads. You will progress faster if you memorise the notes as soon as possible because at a more advanced stage you will need to know these basic chords.

The first $\mathbf{3}$ have 2 black notes with a white note in the middle in root position

this one has only black notes

this one has only 1 black note

this one has only 1 white note

note that Db is sometimes written as $\mathrm{C} \#$ and Gb as $\mathrm{F} \#$ but the notes sound the same
Remember to do all the same things with these as you did with the previous 6 major triads. Hint - to help memorise them, play each major scale, taking the 1 st , 3rd and 5th notes and putting them together. After this, in a way, things get easier!

Now for a few words you will come across. Each note in the key/scale is called a degree or step and is usually referred to in Latin numerals, as explained earlier. They also have names. See the following diagram.

super means above, sub means below. In the last 4 notes, the submediant is below the tonic
The really important ones to remember are the tonic, subdominant and dominant

The major scale is called a diatonic scale as all the notes fall within the key. A chromatic scale on the other hand contains every semitone within the octave. To refer to notes that are not in the major key, you place a flat or sharp before the nemeral, eg. bll or \#IV - ie. the flattened second or the sharpened fourth notes.

## Exercises

1. $|\mathrm{Eb} \quad \mathrm{Ab}| \mathrm{Db} \quad \mathrm{Gb}|\mathrm{B} \quad \mathrm{Bb}| \mathrm{Eb}$ |
2. $|\mathrm{Ab} / \mathrm{C} \quad \mathrm{Gb} / \mathrm{Db}| \mathrm{Ab} / E b \quad \mathrm{Db} / \mathrm{F}|\mathrm{Eb} / \mathrm{G} \quad \mathrm{Ab}| \mathrm{Bb} / \mathrm{D} \quad \mathrm{Eb} \mid$
3. $|\mathrm{C} / E \quad \mathrm{Db} / \mathrm{F}| \mathrm{D} / \mathrm{F} \# \quad \mathrm{~Eb} / \mathrm{G}|\mathrm{E} / \mathrm{G} \# \quad \mathrm{~F} / \mathrm{A}| \mathrm{Gb} / \mathrm{Bb} \quad \mathrm{G} / \mathrm{B} \mid$
| $\mathrm{Ab} / \mathrm{C} \quad \mathrm{A} / \mathrm{C} \#|\mathrm{Bb} / \mathrm{D} \quad \mathrm{B} / \mathrm{D} \#|$
4. $\mid \mathrm{C} / \mathrm{G}$ B/F\#|Bb/F A/E|Ab/Eb G/D|F\#/C\# F/C|
| E/B Eb/Bb|D/F\# Db/F|C/G |
5. Practice all the major scales and arpeggios, particularly the new ones. Play the ones you are more familiar with faster.


Left Hand

G


MAJOR SCALES - PART 2


# MAJOR ARPEGGIOS 

1=Thumb root position
1st inversion
2nd inversion
root position
C


G







MAJOR ARPEGGIOS - left hand root position
C 9
$1=$ IThumb ${ }_{5}$ root position
1st inversion
2nd inversion


$\mathrm{D}:$| 5 | 3 | 1 | 4 | 2 | 1 | 5 | 3 | 1 | 5 | 3 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 20 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | $\rho$ |  |  |







## PART 3

Having learned the major triads, you now have to learn the minor triads. But that just means altering one note in each of them - the third. To be more precise, the major 3rd is lowered by a semitone to form a minor 3rd. There are just 3 semitones between the root-note and the minor 3rd C - Eb, for instance is made up of these semitone: C-C\#, C\#-D, D-Eb.

Again you can find all the notes by playing a minor scale, picking out the 1st, (minor) 3rd, and the 5th. Remember that a minor triad, as well as every other minor chord has a small $\mathbf{m}$ or the abbreviations $\mathbf{~ m i}$ or $\mathbf{m i n}$ after the name of the root-note.

There are 6 minor triads Practice them as you did for the major triads.

The first 3 of these use only white notes

the next 3 have one black note in the middle in root position


In a minor key signature, you won't find accidentals before the 3rds in each chord

Don't get confused between a minor 3rd and a major 3rd. If the 3rd doesn't come in the major scale starting on the root-note, it must be a minor 3rd, and vice versa.

You are probably aware of 2 minor scales. The harmonic minor which has a minor 3rd and a minor 6th, ie. the sixth note is a semitone lower than the major 6th that you find in a major scale. The melodic minor has a minor third going up and a minor 7th and minor 6th as well as a minor 3rd when coming down. There is another minor scale which is far more useful in jazz than these - the plain minor scale. This is identical to the ascending form of the melodic minor scale, going up and coming down. It is easy to construct. Play a major scale but substitute a minor 3rd for the major 3rd and you have it.

Returning for a moment to the major (diatonic) scale, we can build 3-note chords on every step. This is what we get.


You will notice that there are a mixture of major and minor triads. Ignore for the moment the chord on the 7th step which is a diminished triad. See that there are 3 major chords (C, F and G) and 3 minor chords (Dm, Em, and Am). There are many chord sequences which use just these chords in a tune. It is customary to refer to the chords by the numeral if you are talking in general and not about just the one key. So a sequence that goes like this: I VI II V III Vi II I would mean (in the key of C) C Am Dm G Em Am Dm G C. Furthermore, the numerals could refer to much larger chords than triads.

Sometime the minor chords are described by lower case Latin numerals, giving you I ii iii IV V vi vii I.

Lean all the new chords in the usual way.

## Exercises

1. $|\mathrm{Dm} \quad \mathrm{Am}| \mathrm{Cm} \quad \mathrm{Fm}|\mathrm{Em} \quad \mathrm{Am}| \mathrm{Gm} \quad \mathrm{Cm} \mid$
$2|\mathrm{Cm} / \mathrm{Eb} \quad \mathrm{Fm}| \mathrm{Gm} \mathrm{Cm}|\mathrm{Em} / \mathrm{B} \quad \mathrm{Am}| \mathrm{Fm} / \mathrm{Ab} \mathrm{Gm} \mid$
2. Practice the minor scales and arpeggios of Dm, Am, Em, Cm, Fm, Gm

## PART 4

The other six minor triads are shown below.

The first $\mathbf{3}$ have 2 black notes with a white note in the middle in root position

this one has a white note at the bottom and 2 black notes above in root position note the position of the black note

this one has $\mathbf{2}$ black notes with a white note at the top in root position note the position of the white note


Sometimes, C\# is written as Db, and F\# as Gb
Jon't be put off by how the chords look on paper. Memorise them how they look on the piano.
You have now come across all the major and minor triads. Spend some time in playing them over and seeing what you can do with them.

You will notice that the sound of a major chord and that of a minor chord are very different. Sometimes it is said that a major chord sounds happy and a minor chord sounds sad, but these need not be the case. Pieces of music are usually made up of lots of different chords, some major and some minor so the overall emotion you get from hearing it is much more subtle. A tune that uses only major chords can sound rather superficial, whereas a tune
using only minor chords can become unbearable after a while. So it is important to learn both major and minor.

## Exercises

1. $|\mathrm{FHm} \mathrm{Bm}| \mathrm{Bbm}$ Ebm|Abm Dbm|Ebm |
2. $|\mathrm{Cm} \mathrm{Ebm}| \mathrm{Gbm} \mathrm{Am}|\mathrm{Dbm} \mathrm{Em}| \mathrm{Gm} \mathrm{Bbm}|\mathrm{Dm} \mathrm{Fm}| \mathrm{Abm} \mathrm{Bm} \mid$
3. $|\mathrm{Cm} / \mathrm{G} \mathrm{Dbm} / \mathrm{Ab}| \mathrm{Dm} / \mathrm{A} \mathrm{Ebm} / \mathrm{Bb}|\mathrm{Em} / \mathrm{B} \mathrm{Fm} / \mathrm{C}|$

F\#m/C\# Gm/D|G\#m/D\# Am/E|Bbm/F Bm/F\#|Cm/Eb |
4. Practice the minor scales and arpeggios of Dbm(C\#m), Ebm(D\#m), F\#m (Gbm), G\#m(Abm), Bbm(A\#m) and Bm(Cbm)

MINOR SCALES - PART 1
(ascending form of melodic minor used for going up and down)
Note: same finguring as major scales


Left Hand


## MINOR SCALES - PART 2

(1 = Thumb)


 @人,




## Left Hand


$\begin{array}{llllllllllllllllllllll}21 & 4 & 3 & 2 & 1 & 3 & 2 & 143 & 1 & 3 & 2 & 3 & 1 & 2 & 3 & 4 & 2 & 3 & 1 & 2 & 3 & 4\end{array}$



 $\mathrm{G} \# \mathrm{~m}$ 2: \% \#
 CHm HOOHOHO

# MINOR ARPEGGIOS 

$1=$ Thumb

> root position

1st inversion
2nd inversion
root position





Fm


## MINOR ARPEGGIOS



| 5 | 3 | 1 | 5 | 3 | 1 | 5 | 2 | 1 | 5 | 3 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\cdot$ | 0 | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |  |



## DOMINANT SEVENTHS

Dominant seventh chords occur a lot in jazz. Why are they called dominant? Because in classical music they are to be found built on the 5th degree of the scale - the note called the dominant.


In its simplest form, this is a four-note chord. We have already seen than you can build triads on each step of the scale. On the dominant that will give us a major chord. To turn it into a dominant seventh we must add the note a third above the fifth, in fact the seventh (counting from the root-note of the chord).
In the example above, all the notes of the dominant 7 th occur within the key. Therefore you can say that G7 belongs to the key of C.

You will notice that the seventh note of the chord is a tone (2 semitones) below the octave. It is easy then to construct dominant sevenths on any note. First you start with a major triad and then add to it a seventh (the note a tone below the octave. In the diagram below you will see simple dominant sevenths on every note.


You will come across enharmonic equivalents of some of these chords. G\#7 instead of $\mathrm{Ab} 7, \mathrm{~Gb} 7$ instead of $\mathrm{F} \# 7$, and $\mathrm{Db7}$ instead of $\mathrm{C} \# 7$. More rarely
you may also come across A\#7 for Bb7, D\#7 for Eb7, Cb7 for B7 and Fb7 for E7. Don't be phased by this - the important thing is how the chord sounds, not how it looks.

Just as $G 7$ belongs to the key of $C, C 7$ belongs to the key of $F, F 7$ belongs to the key of Bb and so on. That is because the dominant seventh is built on the fifth degree of the scale
$C$ is the fifth note of the major (and minor) scale of $F$, and $F$ is the fifth note of the scale of Bb, etc. What's more, all the notes of the dominant sevenths are to be found in the key signatures of the note a (perfect) fifth below.

What stems from this, is that if you want to smoothly modulate to a new key you can easily do so by playing the dominant seventh of the new key followed by the new tonic chord.

Notice the way that a dominant seventh is represented - the name of the rootnote followed by a 7. You know that it has to have a major third, otherwise the letter $m$ would follow the name of the note. Don't be put off by how the chords look on paper - it's the sound that matters. Remember them by how they look on the piano.

The notes of a dominant seventh chord can be inverted just like triads can.


As you can see there are three inversions. See how the interval of a tone (major second) comes at the top in the first inversion, in the middle in the second inversion and at the bottom in the third inversion.

In classical music, the use of the dominant seventh was rather limited to being found on the fifth degree of the scale. In modern music however you can find dominant sevenths on any note of the chromatic scale. Strictly speaking they can be regarded as being temporary modulations lasting maybe only a few beats or even a single beat or the seventh note may be added to give a bit of colour to the chord. A proper modulation is easly spotted as the chords that follow will stay in a new key for a while.

The chords given above are in what is called close position or close voicing, ie. the notes are in order as they appear on the keyboard. You can spread the notes out using just the given notes to give wider chords and you can double some of the notes. This also applies to all the chords you will come across.

## Exercises

1. | C7 B7 | Bb7 A7 | Ab7 G7 | Gb7 F7 | E7 Eb7 | D7 Db7 | C7 |
2. |C7 Eb7 | Gb7 A7 | Bb7 Db7 | E7 G7 | Ab7 B7 | D7 F7 |
3. | C7 F7 | Bb7 Eb7 | Ab7 Db7 | F\#7 B7 | E7 A7 | D7 G7 |
4. Practice dominant sevenths and their inversions (both hands).
5. Practice the scales and arpeggios you find most difficult.

## MINOR SEVENTHS

If instead of adding the seventh to a major triad to produce a dominant seventh we add it to a minor triad, we end up with a different category of chord - a minor seventh. Minor means it has a minor third, seventh means the minor seventh note (a minor seventh interval from the root-note). Going back to a C major scale, we see there are 3 minor seventh chords which fit within the key.


Remember that the (minor) seventh note is a tone (2 semitones) below the octave from the root-note. Don't get confused between the minor seventh chord and the interval of a minor seventh.

Like the dominant seventh, the minor seventh also has 3 inversions:

:Like the inversions of a dominant seventh, the interval of a major 2nd occurs at the top in the first inversion, in the middle in the second inversion and at the bottom in the third inversion. Recognising how this looks on a piano will help you recognise a chord.

The full 12 minor sevenths are shown below.


Sometimes you will find the enharmonic equivalents of some of these chords - Dbm7 instead of C\#m7, Gbm7 instead of F\#m7, G\#m7 instead of Abm7 but the actual notes are the same.

A minor seventh can be found on any note of the chromatic scale but as long as you remember how it is formed that should not worry you.

Minor sevenths often preceed dominant sevenths in a sequence, eg.
| Dm7 G7 | C | This is called a II V I progression or 251 because the chords are built on the II V and I steps of the scale.

## Exercises

1. | Cm7 Dm7|Em7 F\#m7|Abm7 Bbm7|Cm7 |
2. | Dbm7 Ebm7 | Fm7 Gm7 | Am7 Bm7 | Dbm7 |
3. Practice minor sevenths - chords, arpeggios and inversions.
4. Practice any major or minor scales you still find difficult - slowly at first.

## MAJOR SEVENTHS AND MAJOR SIXTHS

To enrich a triad you can add certain notes to it.
For a major triad, you can add a major seventh, ie. the note a major seventh from the root-note which equals a semitone from the octave. This chord is known as a major seventh, written as, for example, Cmaj, Cmaj7 or C ${ }^{\Delta}$.

If you build 4-note chords on a major scale, you will get a major seventh on the tonic and sub-dominant.


Major sevenths can be found on any chromatic note - here they are:


A major sixth chord can also be constructed by adding the major sixth note of the major scale to a major triad. This is written as, for example, C6


As with other chords, you will come across enharmonic equivalents of some of these chords.

Like other 4-note chords, major sevenths and major sixth chords can be inverted..

$$
\text { root position } 1 \text { st inversion }
$$

$\mathrm{C}^{\Delta}$


Note that the major second interval is in a different place in the two sets of chords.

## Exercises

1. | Cmaj7 Bmaj7 | Bbmaj7 Amaj7 | Abmaj7 Gmaj7 | Gbmaj7 Fmaj7 |
| Emaj7 Ebmaj7 | Dmaj7 Dbmaj7 | Cmaj7 |
( Cmaj7 is another way of writing $\mathrm{C}^{\Delta}$ )
2. | C6 Db6|D6 Eb6|E6 F6|F\#6 G6|Ab6 A6|Bb6 B6|C 6 |
3. Practice all major seventh and major sixth chords and some scales.

## MINOR MAJOR SEVENTHS AND MINOR SIXTHS

To enrich a minor triad you can also add certain notes to it.
For a minor triad, you can add a major seventh which equals a semitone from the octave. This chord is known as a minor major seventh, written as, for example, Cm maj, Cm maj7 or $\mathrm{Cm}{ }^{\Delta}$.


Minor major 7ths are not too common, but minor sixths are often found. A minor sixth is constructed by adding the major sixth note of the major scale to a minor triad, written, for example as Cm6

A major sixth chord can also be constructed by adding the major sixth note of the major scale to a major triad. This is written as, for example, C6


As with other chords, you will come across enharmonic equivalents of some of these chords.

Minor major sevenths and minor sixths can be inverted like other chords.


Note that the major second interval is in a different place in the two sets of chords.

## Exercises

1. |Cmmaj7 Bbmmaj7| Abmmaj7 Gbmmaj7|Emmaj7 Dmmaj7|Cmmaj7|
2. | Bmmaj7 Ammaj7 | Gmmaj7 Fmmaj7 | Ebmmaj7 Dbmmaj7 | Bmmaj 7 |
3. | Cm6 Fm6|Bbm6 Ebm6|Abm6 Dbm6|F\#m6 Bm6|Em6 Am6|
|Dm6 Gm6|Cm6 |
4. Practice the first 6 harmonic minor scales (remember that the scale has a lowered sixth (a minor sixth).

This is the same as the minor scale but with a lowered sixth degree


Left Hand


$$
\text { ( } 1 \text { = Thumb } \text { ) }
$$

## HARMONIC MINOR SCALES - PART 2

Fm $\underbrace{b b b}_{0}$
$\sqrt{700000}$
 B


时 $=0$
 $\operatorname{Ebm} \underset{\sim}{9: b b b}$ $32143213 \quad 21432 \begin{array}{lllllllllllll}2 & 1 & 2 & 3 & 4 & 1 & 2 & 3 & 1 & 2 & 34 & 1 & 2\end{array}$ $\mathrm{G} \# \mathrm{~m}$ ): CHm 哖

$$
432113214 \begin{array}{llllllllllllllllllll}
1 & 3 & 1 & 3 & 2 & 2 & 1 & 2 & 3 & 1 & 2 & 3 & 4 & 1 & 2 & 3 & 1 & 2 & 3 & 4
\end{array}
$$


( $x$ means double sharp, $b b$ means double 3ffat )

## DIMINISHED AND HALF-DIMINISHED CHORDS

The last 2 categories of chords are the diminished and half-diminished. You will remember that a 3-note chord built on a 7th step of a major scale (the leading note) is a diminished triad. By adding two different notes to this we end up with two quite different chords.

Let's deal first with the half-dimished chord. I have no idea why it is called this but it seems to have stuck. It can also be thought of as being a minor seventh chord with a flattened 5th. The chord is written either as, for example, $\mathrm{Bm} 7-5$ or as $\mathrm{B}^{\varnothing}$. I personally prefer the circle with the line through it as it is shorter and doesn't take as much room to write or as much time to work out what it is. But the former Bm7-5 is more self-explanatory.

If we go back to the minor seventh chords, what we need to do it to lower the 5th note in the chord by a semitone to produce a flattened fifth. The full list of all 12 chords is shown below:


To avoid double-flats and double-sharps I've used enharmonic versions in places
Don't be put off by all the flats and sharps. Look and see what they look like on the piano.

The half-diminished can be inverted to give these chords;


One of the main functions of the half-diminished is to replace the minor
seventh chord in a !! V I sequence which ends up in a minor key. In the key of Cm, the first chord will therefore be a Dm7-5 ( $\mathrm{D}^{\varnothing}$ ) instead of a Dm7, the second chord will be G7 and the last chord will be a Cm chord. The reason for this is that it sounds better.

## Exercises

1. $\mid$ Cm7-5 Em7-5 | F\#m7-5 Bbm7-5 | Bm7-5 Ebm7-5 | Fm7-5 Am7-5 |
| Bbm7-5 Dbm7-5 | Ebm7-5 Gm7-5 | Dm7-5 Abm7-5 | Gm7-5 |
(Cm7-5 is another way of writing $\mathrm{C}^{\varnothing}$ )
2. Practice the next 6 harmonic minor scales.

## DIMINISHED CHORDS

The diminished chord consists of 4 notes all a minor third apart.
For example, B D F Ab. They are quite distinctive and you will soon get to recognise them. The full list of 12 diminished chords is shown below.
I have spelled some of them with enharmonic notes to avoid double-flats and double-sharps. I was once taken to task for this but to my mind the important thing is to make things look as easy as possible. Unfortunately there are a lot of pedantic people in music.

The diminished chord is written either as Cdim or $\mathrm{C}^{\circ}$.

Now here is a nice surprise for you. There are only really 3 of these chords. The notes are the same for $\mathrm{C}^{\circ}, \mathrm{Eb}{ }^{\circ}, \mathrm{F}^{\circ}$ and $\mathrm{A}^{\circ}$. Similarly the notes are the same for $\mathrm{CH}^{\circ}, \mathrm{E}^{\circ}, \mathrm{G}^{\circ}$ and $\mathrm{Bb}^{\circ}$, and for $\mathrm{D}^{\circ}, \mathrm{F}^{\circ} \mathrm{Ab}^{\circ}$, and $\mathrm{B}^{\circ}$. In other words, the inversions of each of the three chords is the root-position for the other chords.


How each chord is spelled out in a piece of music depends really upon what key you are in and whether the notes are rising or falling in relation to neighbouring chords.

This concludes the 6 different types of chords: major chords (which include the major 7th and major 6th); minor chords (which include the minor major 7th and the minor 6th), minor 7ths, dominant 7ths, half-diminished and diminished chords.

## Exercises

1. | Cdim C\#dim | Ddim D\#dim | Edim Fdim | F\#dim Gdim | G\#dim Adim |
| A\#dim Bdim | Cdim |
(Cdim is another way of writing $\mathrm{C}^{\circ}$ )
2. From now on, practice a few scales and a few arpeggios every day. It will help you improve your piano technique and your fingering. Don't overdo it.

## CHORD TYPES IN ALL KEYS



## NINTHS

Various notes can be added to triads and four-note chords to give a richer harmony.

With one exception, these are taken from the higher extensions of chords, ie. notes which lie over 1 octave (but within 2 octaves from the root note of the chord. The notes in question are the ninth, eleventh and thirteenth.

The exception is the second which is found on the second step of the major and minor chords which can be added to major and minor triads, with or without the root-notes, as shown below. Some of the inversions sound better than others.


Sometimes it might be stated "omit $C$ " or "omit root"


When the sixth is also added to the major or minor triad, we end up with a 69 chord.


This chord can be opened up by putting the fifth (G, here) up an octave


Note that in the open voicing, from the 3rd upwards the notes are arranged in fourths.

Note also that the same notes can be played as a scale by putting the 9 th down an octave to form a major and minor pentatonic scale respectively

The 69 chord is often used when the melody note is the tonic (C),
A major seventh can also have a ninth added to it.


The notes above the root-note can be inverted to give the following


Play these chords also an octave lower
The ninth can also be added to minor seventh chords.


Usually in the chords given above the ninth is left unaltered (ie. it is the same as
in the major and minor scales. This is not the case with dominant sevenths when the ninth is added. First of all, let's see the chords with unaltered ninths.


Play these chords also an octave lower

With dominant sevenths, the ninth can be unaltered or raised or sharpened by a semitone.

Domınant sevenths with tlattened nınths


Note that if you take away the root-note you have various diminished chos The -9 and $b 9$ are sometimes enclosed in round brackets

Play these chords also an octave lower
Dominant sevenths with sharpened ninths


Depending on the context, the sharpened ninth may be written with a \#9 (see first chord) or as a b10 (see second, third and fourth chords)

The +9 and \#9 are sometimes enclosed in round brackets
Play these chords also an octave lower
It is also possible to have a dominant seventh with both a flattened and sharpened ninth.

Half-diminished chords can also have a ninth (usually unaltered)


Note that the ninth (D) is a tone above the root-note (the octave

A half-diminished with a flattened ninth is rarely found.


The diminished chord can also have a ninth added to it.


When the ninth is added to the diminished chord the sixth (A, here) is often replaced by the major 7th (B)

Strictly speaking I have written the chord wrongly, but it is easier to read this way.

## When to use the ninth

1. When the melody note itself is the ninth or altered ninth.
2. To make a fuller chord.

## Guidelines as to which form of the ninth to add

1. If the dominant seventh lies on a note not in the key, the unaltered ninth is usually the one.
2. If the dominant seventh is preceded by a half-diminished or followed by a minor chord of some sort, the altered (usually flattened) ninth sounds best.
3. If the ninth of whatever chord is part of an inner movement of voices (usually semitones) choose accordingly. Note the A going to the $A b$ and then to the $G$ in this example.

4. Dominant sevenths with sharpened ninths can be used to give a bluesy sound as the \#9 (which can be thought of as a flattened third) is found in the blues scale.

With all of these chords, experiment with different voicings and with different notes playing the lead.

## FIFTHS, FOURTHS, ELEVENTHS AND THIRTEENTHS

## FIFTHS

In major seventh chords and dominant seventh chords, the fifth can sometimes be altered, ie raised or lowered a semitone. This only applies to these two types of chords.

Major seventh chords with altered fifths look/sound like this:


Dominant seventh chords with altered fifths look/sound like this


The dominant seventh with the raised fifth is sometimes called the augmented seventh, just as the major triad with a raised fifth is sometimes called an augmented chord in classical music.

Sometimes, in both types of chord shown above, the lowered and raised fifth can both occur, but a chord with a natural fifth and an altered fifth is very rarely found except in clusters.

The use of an altered fifth will change the appropriate scale used with it, so be aware.

## FOURTHS

Triads in which the (perfect) fourth replaces the major or minor third are called suspended chords, abbreviated like this, C sus4 or more rarely C4.
The major second can also be used to fill out the chord if desired, but there is no need to mention this in the chord symbol. Some things are best left unmentioned!


Major triads which include a major third and a perfect fourth are extremely rare, except in clusters as the clash between the two notes is too much for delicate ears.

The perfect fourth can be added to a minor triad however without any such qualms.


The second chord is an example of a cluster in which the distance between the notes is no larger than a major or minor second. Clusters are a perfect antidote to twee music!

## ELEVENTHS

Just as the interval of a ninth can be thought of a second to make it easier, the eleventh can be thought of as a fourth in some circumstances.

The eleventh can be added to various chords, particularly minor chords.


Note that when the eleventh is the top note, the ninth is usually included below it to fill out the gap between the seventh or sixth and the eleventh.

The eleventh can also be added to diminished and half-diminished chords:


Whether you want to list all the notes added to these chords or just the eleventh is up to you.

When it comes to dominant seventh chords though the eleventh and the major third are very rarely found together as they are thought to clash. The presence of the major third also spoils the character of the eleventh chord.

There are two solution to this. One way is to omit the third altogether. This gives a dominant seventh with a suspended 4th:


Note that this same chord can be found written differently. C11 automatically implies that the major 3rd is omitted. The third symbol (in the second bar) shows that the same chord can be thought of as being a minor 7th on a pedal note a perfect fifth below.
This is often easier for a piano player to read and sometimes also for horn players, whereas some bass players are tempted when confronted by seeing Gm7/C to play the G instead of the C , so I would suggest not using this symbol for them. In a C7sus4 chord the eleventh and ninth can be doubled an octave lower if required.

The other solution to including an eleventh chord in a dominant seventh chord is to alter the eleventh by raising it a semitone:


The ninth is used to bridge the gap again. Here the ninth is unaltered.
Notice that the sharpened eleventh could also be seen to be a flattened fifth. Very often no distinction is made between a $\mathrm{C} 9-5$ and a $\mathrm{C} 9+11$ in written music you will encounter.
But there is a difference. Where it is a sharpened eleventh, the natural fifth can also be played lower down, as shown here. But if the flattened fifth is required in all octaves, then the natural fifth can't be used.

## ALTERED CHORDS

As stated earlier, the presence of altered notes changes the scales which can be applied (see separate tutorial on this).

There are various combinations of altered notes in a chord. This refers to fifths and ninths. Here are some: C7(\#9-5), C7(b9-5), C7(\#9+5), C7(b9-5). Fortunately, the same scale ( C altered scale) applies to all these combinations.

## THIRTEENTHS

We come now to the last piece of this jigsaw - thirteenths. The thirteenth note is the same as the major 6th.

The most common use of thirteenths applies to minor seventh chords and to dominant seventh chords.

When used with a minor seventh chord, it gives a lovely rich sound.


The ninth and eleventh are often used to support the thirteenth above.
The thirteenth is sometimes used as a substitute for a fifth. In fact the inclusion of a fifth in the same chord can weaken the effect that the thirteenth provides:


In dominant seventh chords, the thirteenth can be added with a natural or altered ninth and with a sharpened eleventh:


The sharpened 11th in these chords is sometimes written as -5 .
Where there is a raised fifth in the chord, the thirteenth is not added.
This is getting far too complicated for me, so I'll end it here.


6s

play in all keys and all types of scale and vary tempo and dynamics

play in all keys, major, minor, augmented and diminished

diatonic 4ths (4ths within the key)

chromatic 4ths (perfect 4ths intervals)

major 6ths - also play minor 6ths

major minor 7ths

half-diminished


