

# RockStudy Music

The Theory Behind Rock & Pop



## Topic 1

### Key Change & Modulation - Part A

By Lachlan Wilson

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# Key Change & Modulation

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## Overview

Rock and roll music developed throughout America from the middle of the twentieth century onwards. Young adults, then known as teenagers, looked to identify their contemporary status by way of specific clothing fashion, young role models, who were often film actors such as James Dean and Marlon Brando, and most importantly, a new musical style that projected optimism, excitement, and rhythmic vitality.

The emerging rock and roll musician was inevitably young, enthusiastic, and musically untrained. However by varying and adapting much of the musical language of previous styles, particularly Rhythm and Blues and Country music, a new form of music evolved, one that spoke clearly to the young people of America and subsequently throughout the whole world. This evolution has continued to develop over several decades thereby influencing the many stylistically variations within the genre.

Furthermore, many rock musicians have developed considerable technical skills without any real understanding of music notation and how the theoretical aspect of musical language relates to performance. There can be little doubt that a thorough understanding of music theory can further enhance performance and compositional skills within the musician, which ultimately leads to a more overall proficient musical artist.

## About the Author

Melbourne based musician Lachlan Wilson was drawn to Rock and Roll music from a very young age, and this involvement has since spanned many decades. Whilst also embracing many other musical styles, it was the initial impact of Rock music that has always remained a strong influence throughout his musical career.

As a performer Lachlan has played saxophone and flute in several groups and ensembles throughout Australia dating from the 1960's, through to more contemporary times.

The desire for a more comprehensive understanding of music theory saw him undertake further study where he completed a Bachelor of Music at the University of Melbourne, later leading to additional Post Graduate studies in both composition and education.

Lachlan has subsequently taught harmony and counterpoint at tertiary level for more than 20 years in contrasting musical genres ranging from the Renaissance era through to contemporary non-tonal theoretical practises.

During these educational sessions, the energy and authority of the musical language associated with Rock and Pop music has formed the basis of these instructive modules.

# User's Guide

The headphone symbol lets you know that there is listening material available via the links provided.



The vinyl record symbol lets you know when a specific piece of music is being discussed. The title, artist and composer will be listed here.



Analysis and notation examples are indicated by the image of a treble clef.



Generally notation examples are designed to reinforce the audio examples and offer support for different levels of music theory knowledge. Examples include:

The chord symbol or name. Amaj, Dmin, etc.

The chord's functional name: Tonic, Dominant, Mediant, ect.

The chord's function, represented as a Roman Numeral: I, ii, iii, IV, V etc. It should be noted that in this style an upper case numeral indicates a major chord, and a lower case numeral indicates a minor chord. Additional symbols provide further information such as o denotes that the chord is a diminished triad and the + sign denotes that the chord is an augmented triad. The musical notes, key signature and time signatures will also be layed out across a musical stave.

Additionally each topic will also have its own playlist available on Spotify. These playlists include the original artist version of the songs examined as well as extra listening examples related to the topic. Click [here](#) to listen to Spotify playlist for this book.

Go to [www.rockstudymusic.com/keychange](http://www.rockstudymusic.com/keychange) for details.

## Purchasing



If you wish to develop an educational version for use in the classroom, please contact the Victorian Music Teachers Association.

Go to <https://www.vmta.org.au/online-store/rockstudy-music-online-theory-courses/>

# Introduction

How is it that many great songs are made even greater by a simple change of key?  
But is it really that simple?

This topic will examine why this musical device can become such a powerful tool in the hands of Rock and Pop songwriters.

Throughout traditional western music in diverse and contrasting styles, composers and songwriters have employed various methods of moving through different tonal centres in order to develop musical ideas and maintain a constant source of interest throughout a given piece. The process of changing key when used in Rock and Pop music is a highly effective feature within the style, with three important elements requiring consideration.

1. The structural point within the song where the key alteration takes place.
2. The interval and direction of the tonal shift
3. The harmonic consideration given to the preparation and resolution of the chord progression.

This resource will examine each of these aspects by drawing upon specific musical examples of highly successful songs found within the Rock and Pop genre. Generally speaking, the term modulation, or key change, seems to indicate the same thing. However it may be helpful to consider that modulation appears as a subtle and seamless movement into new and different key areas, whereas a key change may be best thought of as a sudden and abrupt shift into a new tonal area, usually requiring an alteration to the key signature.

Musical material uses modulation regularly from the early Baroque and Classical eras by way of what's known as a pivot chord. The pivot chord is a common harmonic structure that appears in the diatonic collection of both keys, thus enabling the harmonic progression to seamlessly move from one key into another without any obvious dissonance.

The popular jazz standard repertoire regularly employs yet another device, by subtly preparing the listener by inserting one or two chords prior to establishing the tonic harmony in a new tonal centre. In both of these cases there is no variation in the original key signature to highlight the tonal shift. However it is the abrupt key change, often referred to as a juxtaposition key movement that is the more common and most effective in Rock and Pop music.

## Podcast

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Remember to subscribe, like and share to keep up to date with our podcasts and to help us spread the word.

## Playlists

The Spotify playlist for this book can be found by clicking [here](#) or heading over to our website [www.rockstudymusic.com/keychangeandmodulation](http://www.rockstudymusic.com/keychangeandmodulation)

# Key Change by Juxtaposition

In the initial years of Rock and Roll music the favoured key alteration was by shifting already heard musical material up by a semitone in an unprepared sudden manner. This enabled the songwriter to repeat existing music, whilst at the same time maintaining momentum. This can be most effective, particularly if there is minimum musical material composed. During the following musical examples, notation indicating the chord types will be included, although not necessarily the actual voicing, to reinforce the approach used by each of the composers.



*Single section piece using tonic to tonic semitone key changes.*  
Example “Rebel Rouser”, Duane Eddy/Lee Hazelwood.

A good early instance of this key change method can be found in the popular 1958 instrumental “Rebel Rouser”, by guitarist Duane Eddy. In a later interview, Eddy explained his continual key change strategy by admitting that at the time of recording he had only composed an eight bar melody, and this would be a means of further developing the tune and incorporating a feeling of forward energy. This proved to be most successful as the piece was later used to great effect during one of the “Run – Forrest - Run” scenes in the 1994 Academy Award film *Forrest Gump*.



Click the link on your preferred streaming platform to listen to “Rebel Rouser” from 0:35 – 1:35



Note the manner in which this instrumental tune regularly changes key by way of juxtaposition from the tonic chord in each repeating section. By progressively shifting the tonal centre in a rising manner the music maintains its melodic vitality throughout the complete piece.

E → F  
(Tonic chord in E major) (Tonic chord in F major)

bar 24

I

bar 25

I

Musical notation for bars 24 and 25. Bar 24 shows an E major triad (E, G#, B) in the treble clef and an E2 note in the bass clef. Bar 25 shows an F major triad (F, A, C) in the treble clef and an F2 note in the bass clef. The key signature changes from three sharps to two sharps.

F → F#  
(Tonic chord in F major) (Tonic chord in F# major)

bar 32

I

bar 33

I

Musical notation for bars 32 and 33. Bar 32 shows an F major triad (F, A, C) in the treble clef and an F2 note in the bass clef. Bar 33 shows an F# major triad (F#, A, C#) in the treble clef and an F#2 note in the bass clef. The key signature changes from two sharps to three sharps.

F# → G  
(Tonic chord in F# major) (Tonic chord in G major)

bar 40

I

bar 41

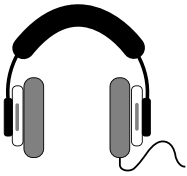
I

Musical notation for bars 40 and 41. Bar 40 shows an F# major triad (F#, A, C#) in the treble clef and an F#2 note in the bass clef. Bar 41 shows a G major triad (G, B, D) in the treble clef and a G2 note in the bass clef. The key signature changes from three sharps to one sharp.



## Key change by semitone to chorus using existing dominant to new tonic chords.

Example "Love on Top", Beyoncé Knowles/Terius Nash/Shea Taylor.



Click the link on your preferred streaming platform to listen to "Love on Top" from 2:53 - End



The upward shift by semitone has continually been used throughout the history of Rock and Pop music. Beyoncé manages to keep the excitement building during the final chorus repeats of her 2017 hit Love on Top.

In this case there are a total of four semitone key shifts as the music progressively moves from the tonal centre of C major upwards until finally settling in E major for the eventual fade out.

To provide an added sense of stimulation, the abrupt change has been resolved from the dominant chord in the existing key to the tonic in the newly arrived tonality. This creates additional tension as these two harmonies, set in root position, are separated by the highly dissonant interval of a tri-tone.

The repeating section of the chorus subsequently lifts by a further semitone to D major, however this time using a juxtaposition type shift before eventually resolving back to the second verse in the original key of B major.

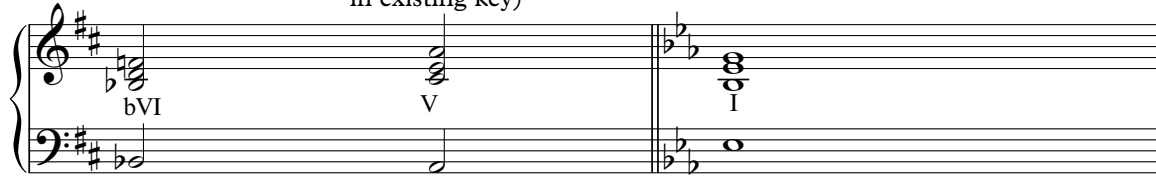
Ab (bar 41 (on repeat))      G<sup>7</sup> (Dominant chord in existing key)      Db (Tonic chord in Db major) (bar 42)

A (bar 49 (on repeat))      Ab (Dominant chord in existing key)      D (Tonic chord in D major) (bar 50)




B $\flat$                                   A                                  E $\flat$

bar 57 (on repeat)                                  (Dominant chord in existing key)                                  bar 58                                  (Tonic chord in E $\flat$  major)



C $\flat$                                   B $\flat$                                   E

bar 65 (on repeat)                                  (Dominant chord in existing key)                                  bar 66




*Extended modulation into instrumental solo by semitone*  
Example "For Once in My Life", Ron Miller/Orlando Murden.

Whilst the previous two examples have employed several semitone key shifts within the one song, the use of just one upward movement can also be most effective, particularly when placed at an important structural point in the song. Consider the following Stevie Wonder song, "For once in my life", where the single key change occurs just prior to the harmonica solo.



Click the link to listen to  
"For Once in My Life" from 1:15-1:35



Here the tonal centre moves from F major up to G $\flat$  major where it remains for the remainder of the song. In this case the shift to G $\flat$  major has been aurally prepared over a number of bars by way of melodic repetition in both keys, eventually resolving from the dominant chord to the tonic harmony of the new tonality for the instrumental solo. This method of abrupt tonal alteration has been established in a more emphatic manner as it completes the modulation process over a total of 4 bars.

(Cyclic movement)

bar 37 F(add9) Eb(add9) Ab(add9) Dbmaj7 C13(b9)

instrumental

I → V → I

(Cyclic movement)

Gb(add9) Eb(add9) A(add9) Dmaj7 Db13(b9) Gb

Anticipated tonic of new key

bar 41 Tonic of Gb major

(Harmonica solo)



*Existing altered dominant to new tonic in chorus by semitone*

Example "Man in the Mirror", Glenn Ballard/Siedah Garrett.

Michael Jackson has also chosen this type of harmonic device from time to time and a good example can be found in his song, Man in the Mirror taken from his hugely successful album 'Bad'.



Click the link to listen to  
"Man in the Mirror" 2:30-2:55



The structural point chosen for the key change is the chorus to add momentum to the music, albeit midway through the song rather than leaving the effect towards the ending, as is often the case. In this particular example the tonal area of the chorus shifts upwards from G major to Ab Major by way of an altered dominant chord. The V7 (#9) of the original key provides a powerful resolution to the following tonic Ab triad.

D7(#9) → A $\flat$

(Altered dominant in the key of G major) (Tonic chord in D major)

bar 64 (on repeat) bar 65



*Potential alternative pivot chord change by whole tone from verse to chorus*  
 Example “I Will Always Love You”, Dolly Parton.

Although Rock and Pop composers have regularly favoured abrupt key change by semitone, particularly in the early period, other interval leaps have also become popular with songwriters and producers, as the era has developed. Rather than an upward shift by semitone, increasing the interval to a whole tone provides a very good means of refreshing a musical passage. This is particularly evident in the Whitney Houston version of Dolly Parton’s “I Will Always Love You”, made popular in the score for the film *The Bodyguard*.



Click the link to listen to  
 “I Will Always Love You” from 2:35-3:40



In this arrangement the final chorus has been raised by a whole tone from the key of A major to B major. The effect has been further enhanced by a sustained fluid bar of 5/4 time, most likely conducted, with a single drum hit highlighting the emotional and uplifting vocal re-entry.

Whilst this key change is heard as an effective juxtaposition shift, it is of particular interest, as the preceding dominant harmony can also be found in the tonality of the resolution key as the subdominant chord.

Therefore in analysis this modulation may be able to fall into both the juxtaposition and pivot chord categories. However the aural perception clearly appears to be best described as a disconnected upward key change.

Further detailed discussion of pivot chord modulation will be undertaken in a later section of this module.

Dmaj7      E      →      B

(Dominant chord in existing key / Subdominant in new key)      (Tonic chord in B major)

At coda

(drum lead in)



*Whole tone key change from chorus to verse using tonic tone tonic chords*  
 Example "Slippin' Away", Max Merrit.



Click the link to listen to  
 "Slippin' Away", 2:50-3:45



The following musical example, Slippi'n Away, an iconic Australian hit recorded by the New Zealand artist Max Merritt and his band the Meteors also makes use of the whole tone shift as the preferred interval for the key change. Although in this instance rather than the chorus of the song being the point for modulation, Merritt has chosen the verse. Similar to the previous example, the key change is also preceded by a drum fill, although in this situation there is an extended pause and percussion period paving the way for the re-entry of the recurring verse.

C      →      D

(Tonic chord in existing key)      (Tonic chord in new key)

At coda

drum fill



## Minor-third key change midway through chorus. Supertonic to new tonic chords

Example “If I Could Turn Back Time”, Diane Warren.

Over time the size of the rising intervals gradually increased to a point where many song-writers found that one of the most effective upward key changes was that of a minor third, and many examples can be found with this interval shift. One particularly good illustration of this can be found in Cher’s “If I can turn back time.” A major hit for her during the 1980’s and more recently featured during the final credits of the film *Deadpool 2*.



Click the link to listen to  
“If I Could Turn Back Time”, 3:00-3:35



Interestingly in this particular piece, the change occurs mid-way through one of the final chorus’s where the music moves suddenly from B major to D major producing the aural effect of introducing fresh melodic material to the song, rather than simple repetition.

This change is all the more effective due to the fact that the harmony leading into the shift is the supertonic chord of C# minor rather than the dominant chord of F# major, as had been the case previously. This then allows a strong semitone leading-tone type resolution into the new key of D major.

<p>During existing chorus</p> <p>C#m →</p> <p>(Supertonic chord in existing key)</p> <p>ii</p>	<p>Continuing chor us</p> <p>D</p> <p>(Tonic chord in new key)</p> <p>I</p>
<p>At coda</p>	



Minor-third key change in minor key. Existing leading-note to new tonic chord for chorus.

Example “Livin’ on a Prayer”, Jon Bon Jovi/Richie Sambora/Desmond Child.

It will be noticed that the abrupt ascending key change occurs far more often in music written in major keys than in those in minor keys. A convincing argument supporting this fact could very well be that the uplifting nature of key change may be at odds with the tonal atmosphere generally found in songs written in a minor key. However be that as it may, a fine minor key example of this exhilarating effect can be heard in the 1980’s Rock Anthem “Livin’ on a Prayer” by Bon Jovi



Click the link to listen to “Livin on a Prayer” 3:00-3:40



Notice the effect nearing the end of the piece where the song’s Chorus takes additional flight by moving upward from the key of E minor to G minor.

In this song the tonal shift and resolution has been brilliantly achieved by using the diatonic natural minor bVII chord of D major in the pre-chorus, resolving to the new tonic chord in the key of G minor for the final chorus.

Furthermore including an additional tension-building element of employing a rhythmic shift by altering the preparation bar to the time signature to 3/4 provides additional impetus when launching into the new key of the following chorus.

<p>Pre-chorus</p> <p>D</p> <p>(Leading note chord in existing key)</p> <p>bVII</p>	<p>→</p>	<p>Chorus</p> <p>Gm</p> <p>(Tonic chord in new key)</p> <p>i</p>

Key changes exceeding a minor third are far less common in Rock and Pop music and are more likely to take place at a point of contrast during the music. For instance many songs that incorporate a bridge passage will generally introduce a contrasting tonal area. Similarly examples can be found where introductions may be composed in a key different from the main body of the song. Furthermore at times the music may intentionally move from a minor key to its relative or parallel major key to present a different aspect to the mood of the song. Closer examination of these occurrences will be further considered when discussing form and structure as it relates to Rock and Pop music.

There are so many exciting options available when writing and arranging music using this type of key change. This may include locating the change at various structural points, combining it with a time signature alteration, and experimenting with differing interval sizes. This musical device can really make a difference to your piece.

# Theatrical Key Changes

Focusing again upon the more common role of modulation by juxtaposition, particularly as these abrupt upward key changes generally serve to propel the music forward and inject an additional element of excitement within the music.

Unfortunately this device has been sometimes criticised for simply extending the duration of a song rather than adding a more creative compositional approach by the songwriter.

This general criticism does seem somewhat unfair, as this musical “manoeuvre” has consistently established itself as a highly valuable modulatory method throughout the decades of the Rock and Pop music genre.

Regardless, key change by juxtaposition regularly plays an important role when employed in single section, or shorter songs, specifically tunes with an unfolding storyline and traditional Christmas carols heard during the festive season.

Furthermore there can also be a theatrical element created by this strategy as can be demonstrated in this concluding musical example which hopefully will further highlight the value of this harmonic device.



*Multiple theatrical key changes using existing dominant, prepared dominant and tonic to tonic methods.*

Example “Greased Lightnin’”, Jim Jacobs/Warren Casey.



Click the link to listen to  
“Greased Lightnin’” 1:13-2:50



Here once again the key change raises to music by a minor 3<sup>rd</sup> when introducing the guitar solo as it heightens the effect of the choreography and hand clapping during the song “Greased Lightnin’” taken from the hugely popular musical *Grease*. The tonal centre shifts from C major up to Eb major during the improvisation, when upon the end of the solo the music abruptly reverts back to C major for the handclapping scene. The following saxophone solo enters with the key once again rising to Eb major where an extended instrumental section involving additional tonal shifts ultimately settling with the concluding vocal tune remaining in this re-established key of Eb major.



(Dominant chord in C major)  $V^7$  (Tonic chord (added 7th) in Eb major) I

Guitar solo 16 bars

$G^7$  (Prepared dominant of new key)  $\longrightarrow$  C (Tonic chord in C major) I

end solo Handclapping sequence 8 bars

$C^7$  (Tonic chord (added 7th) in C major) I  $\longrightarrow$   $Eb^7$  (Tonic chord (added 7th) in Eb major) I

end sequence Saxophone solo 8 bars

$Eb$  (Tonic chord (added 7th) in Eb major) I  $\longrightarrow$   $G^7$   $\longrightarrow$   $B^7$  Build up

end solo Dance sequence 4 bars dance continued 4 bars

$Bb^7$   $\longrightarrow$   $Eb$   
 $V^7$  (Dominant chord in Eb major) I (Tonic chord in Eb major)

(Extended dominant arpeggio) 8 bars Vocal re-entry



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# Conclusion

Eventually the trained ear will become more and more aware of the role of key change and modulation, noting in particular at what structural point this occurs during the song, the interval of the shift, and the resulting effect it has upon the music. In fact the focused listener may eventually be able of anticipate the tonal shift prior to the actual event.

If you enjoyed this content and you wish to learn about more advanced forms of Keychange, head over to [rockstudymusic.com](http://rockstudymusic.com) where you can get hold of Keychange and Modulation Book 2.

In book 2, modulation by pivot chord will be discussed. This form of key alteration had its beginnings in early tonal musical language from the Baroque era onward. However several Rock and Pop songwriters have also made use of this clever device to shift from one key area to another. Often the tonal movement is very subtle with the change seamless, although in other cases there may be a still be a powerful feeling of key alteration. Regardless this sophisticated songwriting strategy is a valuable composition tool within the Rock and Pop genre.

# Listening Examples

Title.	“Rebel Rouser”	Title.	“I will always love You”
Songwriter.	Duane Eddy/Lee Hazelwood	Songwriter.	Dolly Parton
Recording artist.	Duane Eddy	Recording artist.	Whitney Houston
Title.	“Love on Top”	Title.	“Slippin away”
Songwriter.	Beyonce Knowles/Terius Nash/ Shea Taylor	Songwriter.	Max Merritt
Recording artist.	Beyonce	Recording artist.	Max Merritt and the Meteors
Title.	“For Once in My Life”	Title.	“If I could turn back Time”
Songwriter.	Ron Miller/Orlando Murden	Songwriter.	Diane Warren
Recording artist.	Stevie Wonder	Recording artist.	Cher
Title.	“Man in the Mirror”	Title.	“Livin on a Prayer”
Songwriter.	Glenn Ballard/ Siedah Garrett	Songwriter.	Jon Bon Jovi/Richie Sambora
Recording artist.	Michael Jackson	Recording artist.	Desmond Child Bon Jovi
Title.	“Greased Lightnin”		
Songwriter.	Jim Jacobs/Warren Casey		
Recording artist.	John Travolta		