

# THINKING IN INTERVALS

It's great to know all of the names of the notes on every string and fret and you should strive to do so for completeness' sake. It's more practical to recognize the interval relationships between notes and chords. Since notes relate to each other the same way in every key, learning them as intervals eliminates the need to instantly recall the note names on every string at every fret.

I've found that looking at the guitar in intervals made learning easier and faster and I encourage all players to spend time learning how to do so.

Perhaps the best-known application of interval relationships is The Nashville Number System, which was first created using intervals (numbers) to sing harmony vocal parts. Musicians adopted the concept to reflect both melody and chordal relationships.

## E9 Tuning open position notes and intervals:

STRING	PITCH	INTERVAL
1	F#	9
2	D#	7
3	G#	3
4	E	1
5	B	5
6	G#	3
7	F#	9
8	E	1
9	D	b7
10	B	5

The E note is given the number 1 and is also called the "root" or "R".

The G# note is called the "three" or "third".

The B note is the "five" or "fifth".

The D# note is the "seven" or "major seventh". Sometimes written as "maj7" or 7.

The D note is called a "flat-seven" or "dominant seventh", written "b7"

The F# note is called a "nine" or "ninth". In some applications it is called the "two".

The Open Position has two Roots, two thirds, two fifths, two ninths, a seventh and a flat-seven.

# THE FOUR STRING GROUPS AND MAJOR TRIADS

The 4 String Groups are Major Triads (three-note chords). They can be played in any order with any note on top, in the middle, or at the bottom. A particular arrangement of notes in a chord is called a “voicing”.

STRING	PITCH	INTERVAL		STRING	PITCH	INTERVAL
1	F#	9		1	F#	9
2	D#	7		2	D#	7
3	G#	3		3	G#	3
4	E	1		4	E	1
5	B	5		5	B	5
6	G#	3		6	G#	3
7	F#	9		7	F#	9
8	E	1		8	E	1
9	D	b7		9	D	b7
10	B	5		10	B	5
<b>GROUP 1</b>				<b>GROUP 2</b>		
STRING	PITCH	INTERVAL		STRING	PITCH	INTERVAL
1	F#	9		1	F#	9
2	D#	7		2	D#	7
3	G#	3		3	G#	3
4	E	1		4	E	1
5	B	5		5	B	5
6	G#	3		6	G#	3
7	F#	9		7	F#	9
8	E	1		8	E	1
9	D	b7		9	D	b7
10	B	5		10	B	5
<b>GROUP 3</b>				<b>GROUP 4</b>		

## INVERSIONS

When the notes are in the order of 1 - 3 - 5 (low to high) , we call it the Root Position.

When the notes are in the order of 3 - 5 - 1 (low to high) , we call it the First Inversion.

When the notes are in the order of 5 - 1 - 3 (low to high) , we call it the Second Inversion.

Group 3 is the Root position, low to high intervals are 1 - 3 - 5, notes are E - G# - B

Group 2 is the First Inversion, low to high intervals are 3 - 5 - 1, notes are G# - B - E

Group 1 and Group 4 are Second Inversion, low to high intervals, 5 - 1 - 3, notes are B - E - G#

Try singing the notes of each Group/Inversion. Sing the intervals as in “One...Three...Five”, etc. This will help train your ear and help you think of the guitar in intervals.

## STANDARD PEDAL SETUP

Study and memorize what each pedal does to the strings in intervals. Your pedal locations and movements may vary, so apply the concept to your own setup. We'll use the "Emmons setup" in these examples.

The **A pedal** raises your B's to C#'s (strings 10 and 5). Think of it as raising your 5ths up a whole tone to 6ths. The **B pedal** raises your G#'s to A's (strings 3 and 6). That's raising 3rds a half-tone to 4ths.

The **C pedal** raises E to F# and B to C# (strings 4 and 5). In intervals, that's raising a Root to a 9th and a 5th to a 6th. .

**A pedal** = 5ths up to 6ths

**B pedal** = 3rds up to 4ths

**C pedal** = 1 up to 9th (string 4 only), 5th up to 6th (string 5 only)

The "+" sign is a half-step raise. Two "++" is a whole step, etc.

STRING	PITCH	INTERVAL	A PEDAL	B PEDAL	C PEDAL
1	F#	9			
2	D#	7			
3	G#	3		+	
4	E	1			++
5	B	5	++		++
6	G#	3		+	
7	F#	9			
8	E	1			
9	D	b7			
10	B	5	++		

## A & B PEDALS ("Pedals Down" position)

The A & B pedals change the E9th tuning into an A6th tuning.

When you push the A & B pedals down, your A pedal raises your B's to C#'s and your B pedal raises your G#'s to A. Keeping both pedals down puts your guitar in an A6 tuning (low to high):

STRING	PITCH	INTERVAL
1	F#	6
2	D#	b5
3	A	1
4	E	5
5	C#	3
6	A	1
7	F#	6
8	E	5
9	D	4
10	C#	3

## THE FOUR STRING GROUPS/TRIADS (PEDALS DOWN)

STRING	PITCH	INTERVAL		STRING	PITCH	INTERVAL
1	F#	6		1	F#	6
2	D#	b5		2	D#	b5
3	A	1		3	A	1
4	E	5		4	E	5
5	C#	3		5	C#	3
6	A	1		6	A	1
7	F#	6		7	F#	6
8	E	5		8	E	5
9	D	4		9	D	4
10	C#	3		10	C#	3
<b>A &amp; B PEDALS</b>	<b>GROUP 1</b>			<b>A &amp; B PEDALS</b>	<b>GROUP 2</b>	
STRING	PITCH	INTERVAL		STRING	PITCH	INTERVAL
1	F#	6		1	F#	6
2	D#	b5		2	D#	b5
3	A	1		3	A	1
4	E	5		4	E	5
5	C#	3		5	C#	3
6	A	1		6	A	1
7	F#	6		7	F#	6
8	E	5		8	E	5
9	D	4		9	D	4
10	C#	3		10	C#	3
<b>A &amp; B PEDALS</b>	<b>GROUP 3</b>			<b>A &amp; B PEDALS</b>	<b>GROUP 4</b>	