

Intervals Continued
Compound Intervals, Inversions
MUS 102 Music Fundamentals
Mark Nelson, Instructor

Compound Intervals:

These intervals are greater than one octave but they function the same as intervals of an octave or less. One can merely remove the octave and what is left is essentially the interval it functions as.

Example 1:



This compound interval has D on the bottom and F# on the top. By moving the D up one octave to the next D, the interval can now be identified conventionally:

Step 1: count the pitches – D-E-F = 3. The interval is a 3rd.

Step 2: count the ½ steps – D-D#, D#-E, E-F, F-F# = 4. The interval is a Major 3rd or M3.

You can also lower the F# by one octave and you would get the same interval, just one octave lower.

Inversions:

An inversion is when the two pitches of an interval are reversed. The total between each of the two intervals always adds up to 9. For example, a P4 and its inversion P5 is 4+5=9.

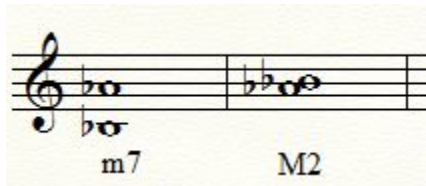
Inversion possibilities:

1. Inverted intervals always invert to their opposite except perfect intervals which invert only to themselves.
2. Inversions are useful to flip pitches to allow different singers or instruments to take the high or low part.
3. Inversions have the following rules:
 - Perfect intervals invert to Perfect intervals
 - Major intervals invert to minor intervals (and vice versa)
 - Diminished intervals invert to augmented intervals (and vice versa)
 - Doubly diminished intervals invert to doubly augmented intervals.

Chart of Interval Inversions Perfect, Minor, Major, Diminished and Augmented

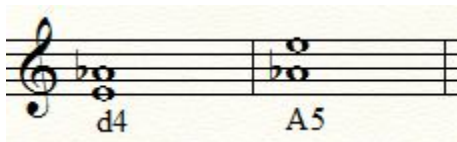
Perfect Unison	←→	Perfect Octave
Perfect Fourth	←→	Perfect Fifth
Perfect Octave	←→	Perfect Unison
Minor Second	←→	Major Seventh
Minor Third	←→	Major Sixth
Minor Sixth	←→	Major Third
Minor Seventh	←→	Major Second
Major Second	←→	Minor Seventh
Major Third	←→	Minor Sixth
Major Sixth	←→	Minor Third
Major Seventh	←→	Minor Second
Diminished Second	←→	Augmented Seventh
Diminished Third	←→	Augmented Sixth
Diminished Fourth	←→	Augmented Fifth
Diminished Fifth	←→	Augmented Fourth
Diminished Sixth	←→	Augmented Third
Diminished Seventh	←→	Augmented Second
Augmented Second	←→	Diminished Seventh
Augmented Third	←→	Diminished Sixth
Augmented Fourth	←→	Diminished Fifth
Augmented Fifth	←→	Diminished Fourth
Augmented Sixth	←→	Diminished Third
Augmented Seventh	←→	Diminished Second

Example 1:



The first interval (minor 7th) inverts to a major 2nd because the notes are in reverse order by either moving up the bottom note one octave or the top note down one octave.

Example 2:



The first interval of d4 will invert to its opposite A5. Note the notes are the same but reversed .