

The Modern Double Bass.org.uk

# Composer Pack — An Introduction to the Double Bass

Revised edition 2019

[www.themoderndoublebass.org.uk](http://www.themoderndoublebass.org.uk)

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## Introduction

This information pack is intended to give composers who wish to write for the instrument a brief introduction to the Double Bass, what playing it involves, and some explanation of its core techniques. Some of the information here and there may seem a little basic but it is surprising how often some of these things get forgotten!

This pack covers things such as: tuning(s), standard orchestral technique (both arco and pizzicato), the basic types of bow stroke and an introduction to some more complicated and extended techniques. A list of performers is also given at the end. This list covers historical as well as current figures and is intended to give a (very) brief overview of some performers who have done much to advance the instrument within their respective genre. This list is in no way exhaustive and I would encourage further exploration with these names as a starting point.

When using the website, please be aware that many of these techniques are not standardised within the conservatoire curriculum and that many result from the efforts of a few performers working at the coalface of double bass performance to further expand its possibilities. As such, many even highly-trained bassists may be unaware of the specifics of a technique and confusion may arise when confronted with an unfamiliar technique. I would advise, therefore, that as much information is given to performers as possible to further clarify your intentions.

Ultimately, however, the double bass has come a long way in the past 50 years so don't be afraid of giving challenging material to the double bass. Its size actually makes it a very versatile sound generator and I hope you will have fun exploring the website to see what is possible. If you can find a bass player to work with, better still. If not, try to find one, after all, we're a friendly bunch! A few things are not included which generally fall outside of strict bass technique (such as vocal sounds) but, where possible, links are given to external sites which cover them. The site was created to address some of the problems I have confronted time and again in scores where composers have not fully understood how a technique works or sometimes even how the bass works. I hope it will be at least a small step in helping to solve these issues and that you will enjoy.

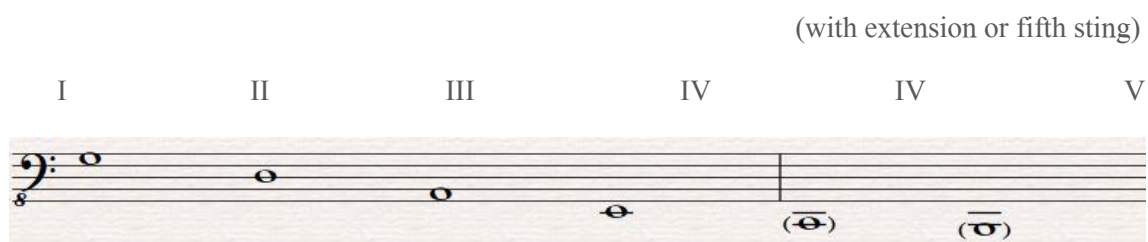
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## General Notes

- 1) The Double Bass is tuned in fourths, unlike the rest of the Violin Family that tunes in fifths. High to low, the open strings are: G $\sharp$ , D $\sharp$ , A $\sharp$ , E $\sharp$ .

Sometimes the E string is equipped with an extension which lowers it to C and Five string instruments are relatively common.



- 2) The Double Bass is a transposing instrument and sounds an octave lower than written. As such, the appropriate transposition clefs should be used. As the Double Bass regularly uses three clefs (bass, tenor and treble) these are:

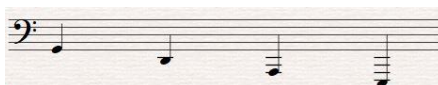


However, if these clefs are not used the bassist will commonly assume that the octave transposition still applies and the written music will sound an octave lower than its written pitch.

Open strings are written



but actually sound



This also applies to natural harmonics.

Written



Sounding



This also applies to false harmonics. In the examples given, false harmonics using the fourth are used which produce a pitch that sounds two octaves above the lower pitch.

Written



Sounding



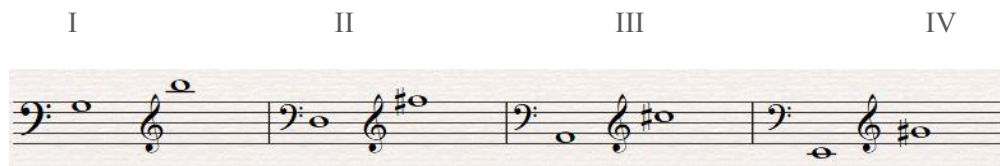
3) The range of the double bass is as follows:



Notes in brackets at the lower end are for a five string or four string bass with an extension. Regarding the higher range; fingerboard lengths are by no means standardised and older instruments which have not been refurbished may have shorter fingerboards than those of a more modern construction. The B $\sharp$  shown is a fairly safe bet as to the uppermost limit but some do go higher but I would advise against going higher than the D $\sharp$  above it.

- 4) The first octave of a string covers a physical distance of over three feet so large intervallic leaps are difficult to perform.
- 5) The strings of the instrument are thick and do not respond quickly in the lowest registers.

- 6) There are two types of instrument often used: the orchestral bass and the solo bass, the qualities of each are discussed below.
- 7) Unlike the rest of the string family, there is a huge variation in instrument size, set-up and range (dictated by fingerboard length). As such, here is a suggested pitch range (on fingerboard) for each string:



- 8) Where possible, consult with a bassist during the composition process to ascertain what is possible, practical and effective and what is not.

## Instrument Types

The Double Bass is unusual amongst string instruments as there are two types of instrument which have different sizes, tunings and characteristics depending on the type of music to be performed.

### The Orchestral Bass

The orchestral bass is often a larger instrument than the solo bass. Orchestral players most often use a 4/4 sized instrument for a greater depth of sound in the lower register. As much orchestral repertoire does not venture into the extreme high register of the instrument, playability in these positions is often not a major concern for orchestral performers.

As discussed above, many such instruments will be equipped with a C-extension which lowers the pitch of the E string down to a C. Also very common is a five stringed instrument with a low B string. However, it is not a given that a bassist will have either and if neither are available be prepared for instrumentalists to play notes written below the open E string up an octave.

The sound quality of the orchestral bass is gruffer but richer in depth than that of its solo counterpart.

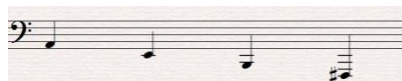
### The Solo Bass

The solo bass is also a transposing instrument and uses a solo scordatura of (high to low) A, E, B, F#. The instrument reads at concert pitch (albeit an octave lower) but sounds a tone higher than written so that, for example, a piece written in G major will sound in A major.

Written



Sounding



Physically, instruments used for solo playing are often smaller than their orchestral counterparts which offers a reduced string length which, in turn, offers a great ease of playing. The higher tuning also allows for greater projection and a slightly faster string response allowing for greater clarity in faster passages and a more brilliant sound quality in general.

## Variants

There are some variations in tuning which are by no means standard:

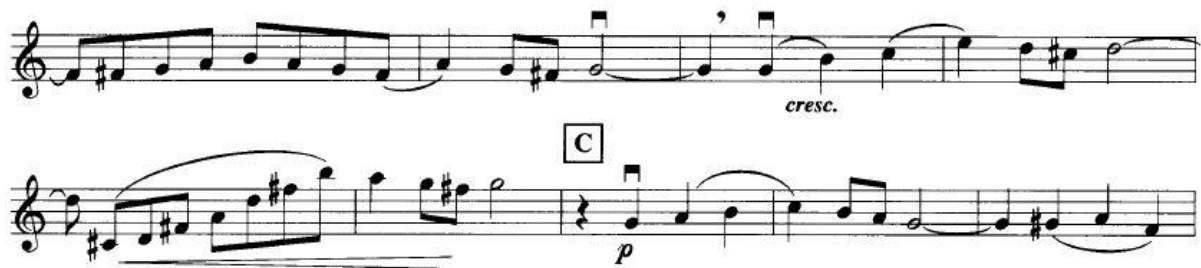
- A fifths tuning (high to low A-D-G-C) used by many bassists including Red Mitchell and Joel Quarrington.
- Viennese Tuning (high to low A-F#-D-A or A-F#-D-A-D for a five stringed instrument) for the performance of historical works although some modern works have been written for this tuning.
- Piccolo Bass Tuning (high to low C-G-D-A) used by some bassists including Ron Carter, Barry Guy and Richard Dubugnon. A smaller (typically ½ size) instrument is also used



# Technical Notes

## Arco

The strings of the double bass are slower to respond than the rest of the string family due to their length and thickness. However, the double bass is more than capable of virtuosic performance as exemplified by this excerpt from Bottesini's *Concerto No.2*

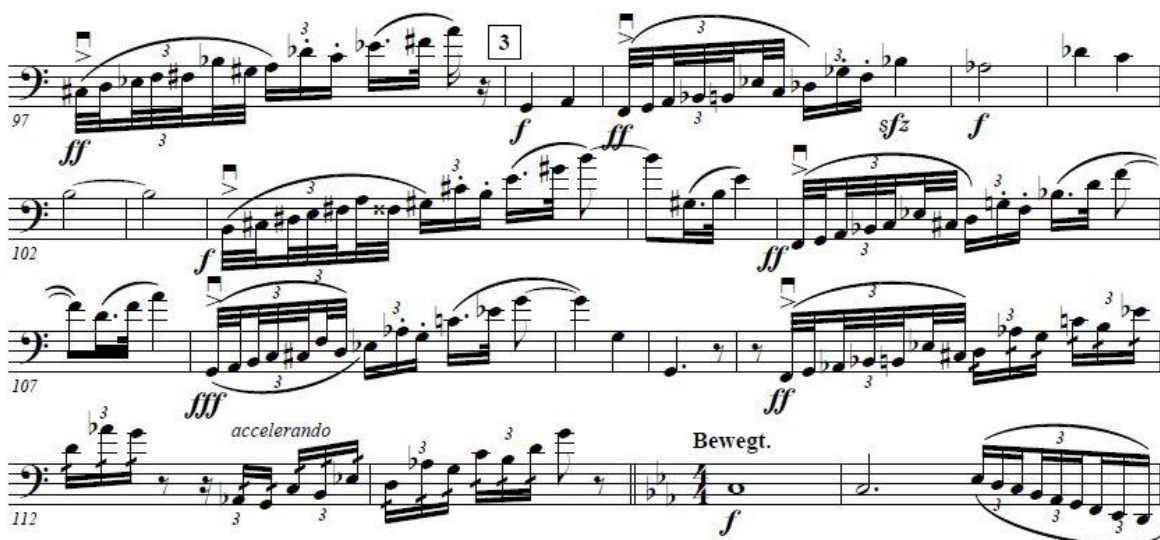


Ex. 1: Bottesini, *Double Bass Concerto No.2, Movement 3 – Allegro m.28.-36*

It is often stated that rapid low register writing for the instrument is difficult to execute cleanly but this is easily refuted by the number of orchestral excerpts which feature the instrument in such a role.

Quick changes of tessitura are, however, more difficult to execute because of the great distance between pitches (a  $\frac{3}{4}$  size instrument has an average string length of between 104 and 108cm of which there is a playable range of about two octaves and a third on the same string) but by no means impossible as the above excerpt demonstrates.

Indeed, examples such as this, whilst difficult, are not uncommon in standard orchestral repertoire.



Ex. 2: Strauss, *Also Sprach Zarathustra m.97-115*

## Basic Arco Articulations

Arco articulations fall into two categories: on the string and off the string. There is an explanation for each type below along with an example of standard notation. In each case, the notation type with a verbal instruction will suffice.

### 1) On The String

**Détaché** produces notes of equal value and weight produced by an evenly distributed weight



**Legato** indicates the notes should be smoothly connected, played either in one or several bows



**Louré/Portato** strokes connect several notes that are pulsed within a single bow.



**Martelé** is a percussive stroke and begins with a sharp accent beginning of the note, followed by a quick release.



**Staccato** indicates that the bow plays shortened and detached notes, distinctly separate from successive notes.



## 2) Off The String

**Jeté** involves throwing the bow on the string, and then allowing it to bounce for several notes in the same bow direction. Height and speed of bounce are dictated by arm position.



**Ricochet** is a bow stroke where the bow is dropped on the string and allowed to play successive notes with each rebounds.



**Sautillé** allows the bow to bounce off of the string, producing a lighter, more rapid, and less percussive sound than spiccato.



**Spiccato** is an off-the-string stroke producing a short, crisp note.



## Bow Areas and Directions

The area of the bow is also specified for certain modes of playing. For more aggressive playing, the bow is used closer to the frog. For more delicate, and softer performance, the middle to tip area is used. These are specified thus:

- Frog/heel: Au Talon
- Tip: Punta d'arco

A down bow moves frog to tip and is used for stronger accents and diminuendo: ▣

An up bow moves tip to frog and is used for weaker beats and crescendo: ▽

Occasionally, the following terminology is used to specify which part of the bow is to be used:

WB = Whole Bow

LH = Lower Half (frog to middle)

UH = Upper Half (middle to tip)

MB = Middle of the Bow

Tremolo involves a rapid, unaccented repetition of the same pitch over the whole duration of the note: 

## Pizzicato

Most orchestral performers will not have the pizzicato technique of a virtuoso Jazz bassist. When writing pizzicato parts for orchestral performers, be aware of limitations of speed and dexterity. Quick changes from arco to pizzicato necessitate the holding of the bow in the right hand which further limits speed. Where possible, consult with a bassist as to what is practical.

## Chords

Chords, even double stops, become increasingly difficult to perform accurately as tessitura ascends. Pizzicato sustain also decreases as the pitch gets higher.

All chords shown on the site relate to a specific hand position. As the combination of intervals is given along with the highest and lowest possible chords using each hand position, assume that all chromatic variations of the chord are possible within the specified range as the use the same hand position.

## Amplification

Many instrumentalists will not own a pickup unless they also perform Jazz and Popular Music and should not be relied upon.

## Extended Techniques

To reiterate, many of the techniques discussed on the site are relatively new and do not form part of the core curriculum for conservatoire-level education. As such, many performers are often unfamiliar with the techniques themselves and as much information as possible should be presented in the preface to the score to clarify the composers intention to the performer.

If using body sounds, col legno sounds or preparations, remember that instruments and bows are fragile and expensive. Sounds which could damage the instrument or bow should be avoided and it is not unknown, or unreasonable, for a performer to refuse to play something which they consider may be injurious either to themselves, or their instrument.

**All other techniques are discussed in depth on the website.**

## Notable Performers

There are many noted virtuosi who perform work of the standard and more contemporary repertoire whose work is available online and should give a sense of the instruments possibilities.

This list is by no means exhaustive and is merely presents a handful of performers whose work is easily available. A cursory internet search of these performers will demonstrate video and audio examples of their respective work and will offer suggestions as to performers in similar vein.

### Standard Solo Repertoire

Rinat Imbragimov

Gary Karr

Edgar Meyer

Franco Petracchi

Dominic Seldis

### Orchestral Performance

Eugene Levinson

Joel Quarrington

Klaus Stoll

Barry Lieberman

Chi Chi Nwanoku

### Contemporary Solo Repertoire

Robert Black

Fernando Grillo (1946–2013)

Barry Guy

Bertram Turetzky

Stefano Scodanibbio (1956–2012)

### Free Improvisation

Mark Dresser

Barre Phillips

Joelle Leandre

Peter Kowald (1944–2002)

Paul Rogers

### Jazz

Scott LaFaro (1936–1961)

Ray Brown (1926–2002)

Ron Carter

Niels-Henning Ørsted Pedersen (1945–2005)

Charles Mingus (1922–1979)

### Historical Figures

Domenico Dragonetti (1763–1846)

Johannes Matthias Sperger (1750–1812)

Giovanni Bottesini (1821–1889)

Serge Koussevitzky (1874–1951)