

Recorder Miscellany

Beginners and students play on Recorders based on the general design of a Baroque Recorder. Advanced students and professionals may also want a Recorder based on the design of a Renaissance Recorder to play music from the Renaissance period with more authenticity.

Different models of Recorder fall into three categories:

- those that are close copies of a particular maker's Recorder
- those that copy the important acoustic aspects of an original Recorder but have their own designed exterior
- those that follow the basic design principles of Baroque or Renaissance design but have been developed further according to what the maker thinks desirable.

English and German fingering

The conventional design of the Baroque recorder has front hole number 4 smaller than front hole number 5, and such a Recorder uses Baroque fingering (also known as English fingering), this fingering is standard across modern and historical Baroque Recorders. However, in the early part of the twentieth century a recorder was developed which had front hole number 5 smaller than front hole number 4, and this allowed for apparently simpler fingering of F – this is called German fingering. This change in design caused many other chromatic notes to be badly out of tune and the instrument, although popular in the 1930s, became obsolete in the 1950s as the Recorder began to be treated more seriously and the limitations of German fingering became more widely appreciated, however some instruments are still made with this fingering.

Baroque and Renaissance Recorders

Baroque Recorder: this is the most common recorder design in use as resuscitated by Dolmetsch and others. Dolmetsch based his copy on an English instrument from C18 that was an instrument in the style of the remodelled design by Hotteterre of Paris. It has a 3 parts: cylindrical head, conical body, and conical foot joint (not always made separately depending on the size of the instrument). Student models are usually in A=440 Hz but professional recorders are available in various other pitch centres, such as A=415, to help recreate the authentic historical sound. Particular models copied are by Baroque instrument makers such as: P Bressan, J Denner, Rippert, Rottenburgh, Scherer, T Stanesby Junior, J Steenbergen, Terton, and Wyne.

Renaissance Recorder: the instrument bore was a one-piece cone; the bore was wider and the angle of taper was about half that of the Baroque instrument, the sound was less reedy and more suited to consort playing. The earliest known example of the older Recorder design dates from the C16 but they were in use from the C14 to C18. These instruments used some different fingering to the Baroque instrument (one common pattern is **Ganassi fingering** described by Ganassi in a treatise he published during the Renaissance) but some current manufacturers produce instruments with the sound of a Renaissance instrument but with the fingering pattern of a Baroque instrument. Instruments are available with various pitch centres.

Recorder pitch

Standard pitch has been established at A = 440 (hertz) and most modern orchestral instruments are manufactured at this pitch although some Flutes are manufactured with a pitch centre of A = 442 to give a certain brightness to the sound. Recorders are produced at A=440 and at A=442 but they are also produced at a range of other pitches to try to give an authentic re-creation of the sound of the music of a particular historical period.

Baroque instruments are commonly also now made in A=415 (called Baroque chamber pitch but in the Baroque period this was actually more often A=409) and some in A=392 (French Baroque pitch), these are respectively one and two semitones flatter than concert A.

Renaissance instruments are commonly also made in A=415 and sometimes also made to A=466 (Baroque church pitch) which is a semi-tone sharper than concert A. Some makers make instruments with alternative sections of different length so depending on which sections are assembled the instrument will play in different pitches.

Recorders are also made in other pitches as exact copies of historical instruments – these pitches (such as A=409) would have been common in certain parts of Europe.

Descant and Treble fingering, transposition and Recorder consorts

Traditionally the Recorder has not been treated as a transposing instrument, this is because historically all players were expected to use the same score and be freely able to switch from one size of instrument to another (without transposed scores being required). This tradition has continued with the modern Recorder family of F/C instruments. The player always refers to the note by its sounding name (although they may be transposing an Octave up or down). All modern Recorders are therefore “in C” – that is when the player refers to the note as C they are actually playing the note C.

All modern F/C Baroque Recorders (except Garklein and Piccolino) generally use the same pattern of fingering from the lowest note to the highest note. If the pattern starts with the lowest note (7 fingers) sounding C – this is referred to as Descant fingering and the player refers to the lowest note as C, if the pattern starts with the lowest note (7 fingers) sounding F – this is referred to as Treble fingering and the player refers to the lowest note as F. In contrast other woodwind instruments would transpose, for example: in the family of C and F Saxophones the fingering pattern is based on 7 fingers = Low C regardless of whether the lowest note is C or is F; if the lowest note is actually F then the instrument is said to be a transposing instrument “in F”.

Today’s serious player needs to be able to read Descant and Treble fingering in the treble clef and in the Bass clef if they want to be able to play the whole family of modern F/C Recorders.

Historically Recorders have been made with various different lowest notes including D, Eb, G, A and Bb. Some of these Recorders were used in Recorder consorts and some were used in mixed ensembles or to accompany voices, in either case the player was expected to read a non-transposed score. In their own times a Recorder player would have been limited to the sets of instruments used in their locality and historical period, in contrast today’s player has access to many more instruments and learning each of the fingering patterns for differently pitched instruments would be very demanding so some players do use transposition for Recorders outside the modern F/C family: when transposing the Tenor (Descant) fingering is considered the fundamental fingering naming system (with 7 fingers sounding C in concert pitch) and transposed scores are created for all other instruments except those with Treble fingering.

A common structure of historical consort was based on the Treble Recorder (lowest note F), it consisted of the Treble recorder; the 3rd flute (meaning Recorder) with the lowest note being A; the 4th flute with the lowest note being Bb, the 5th flute with the lowest note being C (the descant); the 6th flute with the lowest note being D; and the Octave flute (the Sopranino) with the lowest note being F an octave above the Treble Recorder’s lowest note. Although these instruments are based on the Treble Recorder they are referred to as Soprano (Descant) recorders because of their range of notes (except the Sopranino). If using transposition the 3rd, 4th, and 6th flutes (Recorders) would be transposed.

Another commonly occurring Recorder is what is referred to now as the Alto in G (Treble with lowest note G) which was part of a Renaissance consort consisting of Bass (lowest note F), 2 Tenors (lowest note C), and a treble (lowest note G). Also commonly found was an instrument that is now referred to as a Tenor in Bb – this was the Tenor 4th flute (Recorder) lowest note Bb - a 4th up from the Bass (lowest note F) and part of another consort structure. Finally the “Voice flute” was popular for accompanying the voice; it was a Tenor Recorder (lowest note D) but in Baroque pitch the range of the instrument would have actually matched the Soprano singing voice (whereas at modern A=440 pitch the modern Tenor (lowest note C) corresponds with the soprano singing voice).

The modern F/C Recorder family

Below is a list of Recorders from smallest to the largest.

Piccolino (F)	-6 fingers sounds G; lowest note F referred to as F sounding F6 two octaves higher than written. Experimental instrument – to enable the player to cover the holes the holes are not in a linear sequence.
Garklein (C)	-6 fingers sounds D; lowest note C referred to as C sounding C6 (two octaves above middle C); usually scored 2 octaves lower than sounding but sometimes 1 octave lower than sounding. Barely has 2 octave range and standard fingering does not always work so Sopranino preferred unless a particular passage of music is easier on the Garklein
Sopranino (F)	-6 fingers sounds G; lowest note F referred to as F sounding F5 one octave higher than written. Also referred to as the "Octave Recorder" in consorts based around the Treble recorder
Descant (C)	-6 fingers sounds D; lowest note C referred to as C sounding C5 (1 octave higher than written; also called "Soprano" although its range is an octave higher than the Soprano voice and other Soprano instruments. Also exists as the "fifth flute" in consorts based on the Treble recorder
Treble (F)	-6 fingers sounds G; lowest note F referred to as F sounding F4 as written (on Treble clef) although sometimes written down an octave to read alto vocal parts, some editions of Baroque scores use Violin clef; also called "Alto" although its range is an octave higher than the Alto voice and other Alto instruments.
Tenor (C)	-6 fingers sounds D; lowest note C referred to as C sounding middle C(4); usually written on Treble clef and sounds as written but may be written in bass clef one octave below sounding pitch in order to read choral parts for tenor voice. Although it is referred to as a Tenor its range is an octave higher than the Tenor Voice and other Tenor instruments. Some models have keys for low C and C#
Bass (F)	-6 fingers sounds G; lowest note F referred to as F (sounding F(3) below middle C); usually written in Bass clef but sounds as Octave higher; can be written on treble clef in concert pitch or even on treble clef an Octave higher (so matching the fingerings of treble recorder for the different registers of the instrument; although referred to as a Bass it's range is an octave higher than the Bass voice and other Bass instruments, in fact the instrument was also known as a Basset Recorder to reflect this. The head-joint can be direct (like the head-joint on smaller Recorders) angled (sometimes referred to as "knicked"), or "capped" – the player blows into a short curved pipe (a "crook"). Instruments usually have 3 or 4 keys.
Great Bass (C)	-6 fingers sounds D; lowest note C referred to as C sounding C3; the instrument has several keys and must be played with a crook.
Contra Bass (F)	-6 fingers sounds G; lowest note F referred to as F sounding F2 one octave below Bass Recorder; also known as Great Bass in F. Lowest note = lowest note of Bass singing voice.
Contra Great Bass (C)	-6 fingers sounds D; lowest note C referred to as C sounding C2 two octaves below C Bass; Also know as Sub Great Bass in C. Equivalent to lowest note of Cello; this instrument is a recent development intended for Recorder Orchestras
Double Contra Bass (F)	-6 fingers sounds G; lowest note F referred to as F sounding F1 two octaves below Bass in F; also known as sub Contra-Bass in F; this instrument is a recent development intended for Recorder orchestras