

DESCRIPTION OF STOPS

PITCH FOOTAGE

The number appearing on each stop along with its name indicates the "pitch" or "register" of the particular stop. It is characteristic of the organ that notes of different pitches may be sounded from a single playing key. When this sound corresponds to the actual pitch of the playing key, the note (or stop) is referred to as being of 8' pitch; therefore, when an 8' stop is selected and middle C is depressed, the pitch heard will be middle C. If it sounds an octave higher, it is called 4' or octave pitch. If it sounds two octaves higher, it is called 2' pitch, while a stop sounding three octaves higher is at 1' pitch. Likewise, a 16' stop sounds an octave lower and a 32' stop sounds two octaves lower.

Stops of, 16', 8', 4', 2', and 1' pitch all have octave relationships, that is, these "even numbered" stops all sound octaves of whatever key is depressed. Pitches other than octaves are also used in organ playing. Their footage number always contains a fraction, and they are referred to as mutations. Among these are the Nasard and Quinte 2-2/3', Tierce 1-3/5', and Quintflöte 1-1/3'. Because they introduce unusual pitch relationships with respect to the fundamental (8') tone, they are most effective when combined with other stops, and are used either in solo passages or in small ensembles of flutes (see explanation of Cornet in a later portion of this manual).

TONAL FAMILIES

Organ tones divide into two main categories: flues and reeds. In a pipe organ, flue pipes are those in which the sound is set in motion by wind striking directly on the edge of the mouth of the pipe. Flues include principal tones, flute tones, and string tones. Compound stops and hybrid stops are "variations" within these three families.

The term "imitative" means that the organ stop imitates the sound of the corresponding orchestral instrument; for example, an imitative "Viola 8'" would be a stop voiced to sound like an orchestral viola.

Principal Voices Principal Diapason Octave Superoctave Quinte	Characteristic organ tone, not imitative of orchestral instruments. Usually present at many pitch levels, as well as in all divisions. Rich, warm, and harmonically well developed.
Flute Voices <i>Open:</i> Harmonic Flute Melodia Flute mutation stops <i>Stopped:</i> Gedackt Bourdon Quintadena Rohrflöte	Voices of lesser harmonic development than Principal. Open flutes somewhat imitative; stopped flutes not. Present at all pitch levels and in all divisions.

String Voices Salicional Viola Voix céleste	Mildly imitative voices of brighter harmonic development than Principal. Usually appear at 8' pitch.
Compound Voices Mixture Cornet	Voices produced by more than one pitch sounding simultaneously.
Hybrid Voices Gemshorn Erzähler Spitzflöte	Voices that combine the tonal characteristic of two families of sound, e.g., flutes and principals, or strings and principals.

In *reed* pipes, a metal tongue vibrates against an opening in the side of a metal tube called a shallot. The characteristic sounds of different reeds are produced through resonators of different shapes. The family of reeds subdivides as follows:

Reed Voices <i>Chorus or Ensemble:</i> Trumpet Posaune Clairon <i>Solo:</i> Hautbois Clarinet Krummhorn	Voices of great harmonic development; some imitative, others not.
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Following is a discussion of individual stops and how they are generally used. Please note that slight variations in specifications may be encountered.