

PULLING OUT ALL THE STOPS!

Get acquainted with the “King of Instruments”—discover what all those buttons, levers, knobs, and pedals control. Once you figure them out – playing the organ can be easier than playing the piano.



THE ORGAN CONSOLE

The console is the control center of the organ. The organist pulls a STOP (a flute, for example) to potentially activate a RANK (set) of pipes that belongs to a particular DIVISION of the organ (the Great, Swell, or Pedal, for example). That division is played from a certain MANUAL (a keyboard for the hands) or from the PEDALS (a keyboard for the feet).

Combinations of stops may be pulled by hand, or may be set into memory and recalled through the use of the Combination Actions (including the THUMB PISTONS and TOE STUDS).

The Great Division

The first and lower manual (located closest to the organist) controls the main division of the organ, referred to also as “the Great.” The main principal chorus, often considered the “backbone” of the organ, is central to the Great division. On a pipe organ this is usually a non-expressive division, meaning that its pipes are not contained in a box with louvers that can be opened and shut to control the volume. In this case, volume can only be controlled by the addition and retirement of stops in the Great division.

The Swell Division

This second and higher manual (located just above the Great) controls a secondary division of the organ, referred to as “the Swell.” A secondary, more flute-dominated chorus, and fiery reed (trumpet) chorus are often characteristic of the Swell division. Often more of the solo sounding stops are found in the Swell division. By definition, the Swell is an expressive division, meaning that its pipes are contained in a large box with louvers that can be opened and shut. An expression pedal (also called the Swell Pedal) controls the position of these louvers. Volume can also be controlled by addition and retirement of Swell stops.



On an organ, different sets of tonal sounds are controlled by STOPS.



You activate the stop by pulling it. So if you want to make the organ VERY loud — you would “Pull out all the stops.”



Pipes not enclosed are typically found in the Great division.

The Swell division is enclosed in this box — and the volume is controlled by opening and closing the louvers with a foot-pedal on the console.

TYPICAL WARD ORGAN

Allen Protégé AP-16

VIRTUAL ACCOUSTICS

Adds "reverberation" to the overall sound & generates a slight "sustain"

STOPS-Pedal

Rocker tabs control the voices for the pedals.

STOPS-Swell

Rocker tabs control the voices for the swell manual.

STOPS-Great

Rocker tabs control the voices for the great manual.

GENERAL MODIFIERS

Tabs control special features of the organ



Power → Switch

SWELL MANUAL

← SWELL PISTONS

GREAT MANUAL

← GREAT PISTONS

Transposing Knob

GENERAL PISTONS

Turns on or off pre-programmed "stop" combinations for the ENTIRE ORGAN.

GENERAL TOE STUDS

Turns on or off pre-programmed "stop" combinations for the ENTIRE ORGAN.

PEDAL TOE STUDS

Turns on or off pre-programmed "stop" combinations for the PEDALS.

Volume Indicators

CANCEL BUTTON

Turns off all "stops."

GREAT PEDAL

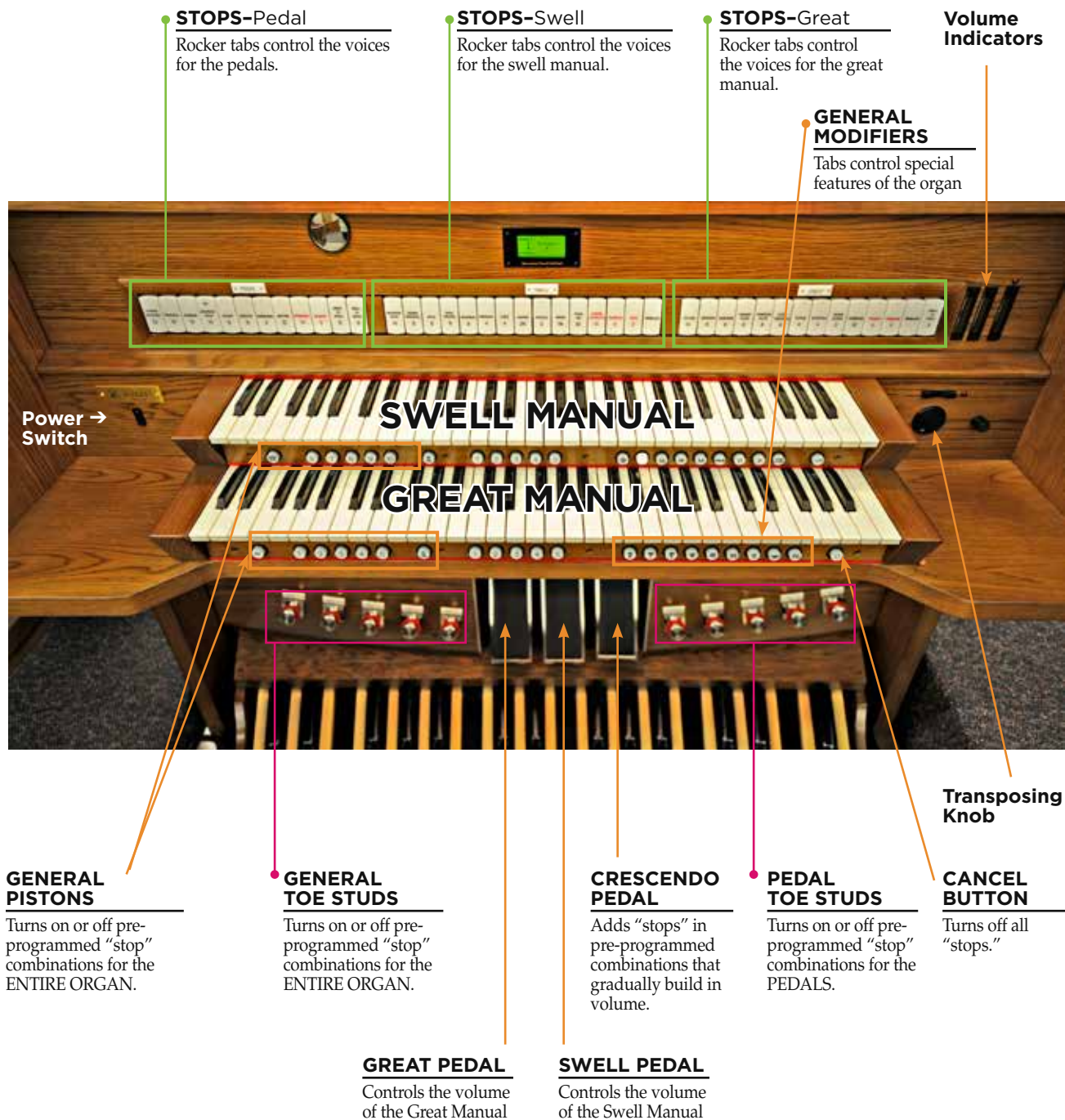
Controls the volume of the Great Manual

SWELL PEDAL

Controls the volume of the Swell Manual

TYPICAL STAKE CENTER ORGAN

Rodgers T788LHP



STOPS-Pedal
Rocker tabs control the voices for the pedals.

STOPS-Swell
Rocker tabs control the voices for the swell manual.

STOPS-Great
Rocker tabs control the voices for the great manual.

Volume Indicators

GENERAL MODIFIERS
Tabs control special features of the organ

Power → Switch

SWELL MANUAL

GREAT MANUAL

GENERAL PISTONS
Turns on or off pre-programmed "stop" combinations for the ENTIRE ORGAN.

GENERAL TOE STUDS
Turns on or off pre-programmed "stop" combinations for the ENTIRE ORGAN.

CRESCENDO PEDAL
Adds "stops" in pre-programmed combinations that gradually build in volume.

PEDAL TOE STUDS
Turns on or off pre-programmed "stop" combinations for the PEDALS.

Transposing Knob

CANCEL BUTTON
Turns off all "stops."

GREAT PEDAL
Controls the volume of the Great Manual

SWELL PEDAL
Controls the volume of the Swell Manual

ORGAN REGISTRATION

One of the distinctive characteristics of the organ is its variable tonal palette. An organist has as many “instruments” at his or her command as there are stops and combinations of stops on the organ.

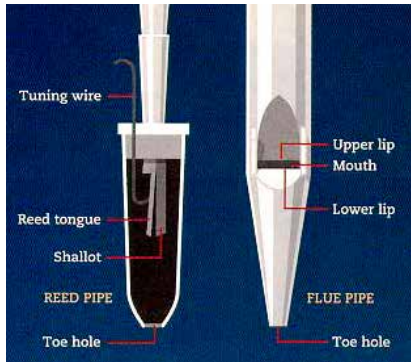
FAMILIES OF ORGAN TONE

On a pipe organ the variation of tonal quality is generated by different types of pipes. There are general categories of organ pipes: REED and FLUE. An organ pipe sounds – or speaks – by causing a column of air to vibrate in one of two ways:

1. A metal tongue (a reed) at the bottom of the pipe vibrates
2. A sheet of air passing through an opening (or flue) at the bottom of the pipe (mouth) is split against the upper lip, causing vibration.

Just as the instruments of the orchestra is divided into sections (strong, woodwind, brass, percussion, etc.) The stops of the organ are divided into FAMILIES. There are four main families of organ tone:

1. **FLUTE** – Organ flutes appear in many varieties, they share a relatively clear, flute-like tone. Flute tone emphasizes the lower, foundational harmonics. Flute pipes are soft to medium in volume.
2. **PRINCIPAL** – The principal tone is considered the “backbone” of the organ. Its foundational, rich quality is well-endowed with low and high harmonics. Principal tone is unique to the organ – it is not produced on any orchestral instrument. Principal pipes are medium to loud in volume.
3. **STRING** – Most organs contain fewer organ strings than either the flutes or principals. String tone has a thin, incisive quality, rich in upper harmonics. String pipes are soft to medium in volume.
4. **REED** – Reed stops are divided into two subcategories: solo reeds and chorus reeds. A solo reed is imitative in quality and may not blend well with the flues. It is used primarily as a solo stop. Chorus reeds blend well with flue (especially principals) and is used to add fire and strength to the ensemble. A chorus reed can double as a solo reed, but a solo reed does not usually double as a chorus reed.



COMMON STOP NAMES

→FLUTES Ooo

Bourdon
Gedeckt
Koppelflöt
Larigot
Nazard
Piccolo
Subbase
Tierce

→PRINCIPALS Ahh

Principal
Diapason
Octave
Quint
Twelfth
Mixture
Choral Bass

→STRINGS Ehhh

Cello
Viola
Violone
Salicional

→REEDS Awww

Clarinet
Cromorne
Krummhorn
Basson
Clairon
Fagott
Trompette

Organ Registration

Family of Organ Tones

COMMON STOP NAMES LISTED BY PIPE CATEGORY AND FAMILY OF ORGAN TONES

Most every speaking stop found on organs in LDS meetinghouses is listed under its pipe category (flue or reed) and family of organ tone.

FLUE PIPES			REED PIPES
Flute Family Oooo Subbass (16') Quintatön (16') Bourdon (16', 8') Gedackt (16', 8') Pommer (16', 8') Rohrflöte (8') Chimney Flute (8') Cor de nuit (8') Clarabella (8') Stopped Diapason (8') Copula (8', 4') Tibia (8', 4') Nachthorn (4') Nazard (2 ² / ₃ ') Octavin (2') Blockflöte (2') Tierce (1 ³ / ₅ ') Larigot (1 ¹ / ₂ ') Siffelöte (1')	Principal Family Ahhh Principal (16', 8', 4') Diapason (16', 8') Montre (16', 8') Dulciana (8') Prestant (8', 4') Octave (4') Quint (2 ² / ₃ ') Twelfth (2 ² / ₃ ') Fifteenth (2') Super Octave (2') Doublette (2') Tierce (1 ³ / ₅ ') Seventeenth (1 ³ / ₅ ')	String Family Eehhhh Violone (16', 8') Gamba (8') Salicional (8') Viola (8') Viola da gamba (8') Viola celeste (8') Voix celeste (8') Unda maris (8')	Reed Family CHORUS REEDS Bombarde (32', 16') Posaune (32', 16') Fagott (32', 16') Basson (32', 16') Dulzian (16') Trumpet (16', 8') Trompette (16', 8') Tromba (16', 8') Hautbois (8') Oboe (8') Clarion (4') SOLO REEDS Cromorne (8') Krummhorn (8') Clarinet (8') French Horn (8') Regal (8') Schalmei (8') Tuba (8') Festival Trumpet (8')
Hybrids Gemshorn (8', 4'), Spitzflöte (8'), Erzähler (8'), Geigen Principal (8')			

NON-SPEAKING STOPS

A non-speaking stop does not speak on its own – rather than activating a rank of pipes, it manipulates the speaking stops.

COUPLERS – allow you to “couple” one manual to another or to the pedals. For example, the “Swell to Great Coupler” will allow you to play all of the Swell stops on the Great manual.

TREMULANT – causes an undulation in the pitch and the volume of the pipe, the result is a “worbbling” effect.

CELESTES

An organ “celeste” is a rank of pipes tuned slightly off-pitch (usually sharp). When combined with its companion rank, the result is a slight pulsating beat. These should not be used for congregation singing however is effective for solo stop combinations.

THE RANK

Basic to any discussion of organ registration is the concept of the RANK, which is simply defined as a set of pipes that make up one tonal group. There are 61 pipes for a manual rank and 32 pipes for a pedal rank. (One for each key or pedal.)

TIP

American Guild of Organists (AGO)
Standard Console Specifications

ORDER OF STOPS

The order within each division is: Flues 16' 8' 4' 2', Mixtures, Reeds 16' 8' 4'.

Stops not mentioned above take their normal position according to pitch in their respective divisions.

Loudest to softest is the order within pitch groups.

(Left to right for stop-tabs, bottom to top for draw-knobs.)

PITCHES OF ORGAN STOPS

The name of the stop is imprinted on the stop tabs. The name is usually followed by an Arabic numeral and a "foot" sign — such as 8'. This pitch designation is a direct reference to the length of the longest pipe in the rank — but its main purpose is to indicate the basic speaking pitch of the rank or stop. It is easiest to relate these various pitches to standard "concert" pitch — the pitch you would hear if a key were played on the piano. Organists refer to this normal reference point as "eight-foot pitch."

8' = Normal "concert" pitch Middle-C will sound the same pitch as the middle-C on a piano

4' = ONE octave higher than 8' pitch

2' = TWO octaves higher than 8' pitch

1' = THREE octaves higher than 8' pitch

16' = ONE octave lower than 8' pitch

32' = TWO octaves lower than 8' pitch

MUTATIONS

Stops with a "fraction" sound at some tone other than the actual key played. Most mutations are either fifth-sounding ranks or third-sounding ranks.

2²/₃' = ONE octave and a PERFECT FIFTH

1¹/₃' = TWO octaves and a PERFECT FIFTH

1²/₅' = TWO octaves and a PERFECT THIRD

MIXTURES

Most stops control only one rank, but some stops control a "mixture" of stops. They typically combine two or more high-pitched stops that add strength and/or color to registrational combinations.

