

Goal #1: Basic congregational hymn registration = Principal chorus

Organ stops are classified in four basic Families of Tone: Principal, Flute, String, and Reed. (There are also hybrids combining characteristics of two families, and there are sub-classifications, such as open flutes, stopped flutes, chorus reeds, solo reeds).

Principal tone is basic and unique to the organ. It does not sound like any other instrument.

“Chorus registration” means combining stops of different pitches within the same family.

8' pitch is the pitch level at which we sing – at which the piano and most instruments play. (8' refers to the length of the largest pipe in a set of principal pipes that play at that pitch). Smaller numbers (indicating shorter pipes) play at higher pitches, reinforcing the natural overtones of the 8' foundation pitch. A 4' stop will sound one octave higher (the first overtone) than an 8' stop, and a 16' stop will sound one octave lower. 16' stops are generally used in the Pedal only, to add depth (analogous to playing octaves in the left hand on the piano or adding the double basses to the string orchestra).

The “Great” division, played from the lower manual on a two-manual organ, is the main division, and it will have the largest portion of principal stops.

On a typical organ console with stop tabs arranged in one or more rows above the keyboards, stops are grouped according to the following hierarchy, left to right:

1. Division: Pedal, Swell, Great
2. Pipe type: flues, then reeds
3. Pitch: 16, 8, 4..., ending with mixtures (Roman numerals)
4. Family of tone: principal, flute, string (reeds are already separated)
5. Loudness

The above information is enough to register a small principal chorus. Simply select the first 8' stop in the Great, then add the first 4' stop. Most likely the 8' stop will be named *Principal*, *Open Diapason*, or just *Diapason* (note: a *Stopped Diapason* is a flute); and the 4' stop will most likely be named *Octave*, *Principal*, or possibly *Prestant*.

For the bass line, to be played in the Pedal (either with feet or using the Bass Coupler), **either** select similar 8' and 4' stops (the 4' Pedal stop may be called *Choralbass*) or simply use the *Great to Pedal* coupler (which “copies” the Great stops to the Pedal); **and** select a 16' flue stop to balance, not necessarily a principal, which may be too heavy for such a minimal chorus.

This basic principal chorus can be further developed “vertically” by adding higher pitched stops, such as 2' and a mixture; and/or “horizontally” by adding additional 8' and/or 4' stops, including flutes and strings, including some from the Swell division by means of the *Swell to Great* and *Swell to Pedal* couplers.

Some things to avoid in congregational hymn registrations:

- Celestes. These stops are purposely mis-tuned to create a special, soft, “celestial” effect **when paired with one other similar stop**. (Note: A Roman numeral II on a celeste stop tab indicates that it alone controls the celeste pair – no other stops are needed). Generally they detract more than they contribute to a chorus registration, because in that context they are merely out of tune.
- Tremulant. Even worse than celestes! No one wants to sing with a wobbly organ!
- “Fancy” reed stops, such as *English Horn*. Reeds should be used sparingly anyway.
- Anything that makes the organ sound unnatural or quirky!

For accompanying softer hymns, such as sacrament hymns, substituting flute stops or combining flutes and strings – but not celestes! – in place of principals may be desirable.

Some thoughts about loudness

One of my favorite quotes (paraphrased): “The chapel is like a swimming pool; if you don’t fill it with enough sound, people will be afraid to dive in.”

When accompanying the congregation, your job is not to make the organ sound pretty, your job is to support the congregation with sound that is appropriately strong and clear, to invite and inspire, neither to overwhelm nor underwhelm.

If the organ seems a little loud when you’re practicing in the empty chapel, it might be OK when it’s full of people.

With electronic organs it’s easy to make the organ sound artificial or unnatural by “turning down the volume” with too many stops or “turning it up” with not enough stops.

If the bishop thinks it’s too loud, he may be wrong – because his place on the stand is not the best place to judge that. On the other hand, in some chapels the organ bench is in an even worse place for that! Get someone with some musical sense in the middle of the full chapel to give you some feedback.

The other three families of tone

	FLUTE	STRING	REED
Characteristics	Softer and darker than principals	Softer and brighter than principals	Brassy, fiery, spicy...
Some names to memorize	Bourdon Gedeckt	Salicional Gamba Aeoline	Bombarde Posaune (<i>Ger.: Trombone</i>) Fagott (<i>Ger.: Bassoon</i>)
Otherwise	if it can be recognized as some kind of flute or “floete”	if it has the root “viol” in its name	brass or reed instrument, incl. ancient instruments and foreign spellings

Some “horns” that are not reeds: *Gemshorn* (flute/string hybrid) and *Nachthorn* (open flute).