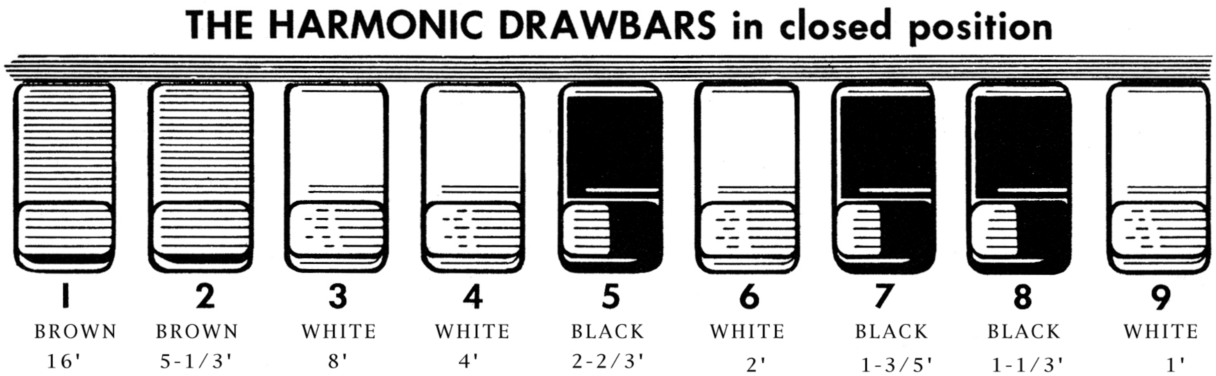
Hammond Drawbar Terminology and Settings

Collected from several hard-to-find- or out-of-print sources

(1) Drawbar Terminology



Here is one group of drawbars. There are two such groups on the Spinet Organ and four such groups on other models. All Hammond Organ drawbar groups consist of the same nine drawbars in the same sequence except for a slight difference in the first group on the Spinet Organ. Thus when you become familiar with one group of drawbars you are immediately at home with them all.

The first white drawbar (#3) gives you the fundamental of any note you play on the manuals, and can be pulled out to any one of eight different positions or degrees, or of course can be left in "off" position (pushed all the way in). The other white drawbars in the group, numbers 4, 6 and 9, represent octave or "consonant" harmonics- that is, each is one octave above the preceding white drawbar. The three black drawbars, numbers 5, 7 and 8, bring in harmonics which fall between the octaves and are called "dissonant". Drawbars number #1 is an octave below the fundamental and #2 is a fifth above the fundamental.

Other Identification

You will note that the fundamental drawbar is marked 8', and the subfundamental (one octave below) is marked 16'. This is pipe organ terminology and means that the pipe used to produce the fundamental tone on a pipe organ is actually eight feet high (for the lowest key on the manual) while that used for the octave below is sixteen feet high and that for the octave above is only half the size of the fundamental, or four feet high.

The drawbar Harmonic Controllers from left to right are as follows :

	Color	**Name**	**Speaking Pitch**	Note which sounds when middle C is played
1	Brown	Sub-octave	16'	octave below
2	Brown	Fifth	61/3'	fifth above
3	White	Unison	8'	middle C
4	White	Octave	4'	octave above
5	Black	Twelfth	.112/3'	octave and fifth above
6	White	Super-octave	.11'	two octaves above
7	Black	Seventeenth	13/5'	two octaves and third above
8	Black	Nineteenth	11/3'	two octaves and fifth above
9	White	Super Super-octave	l'	three octaves above

Each of the nine Harmonic Controllers may be said to have a distinct influence on the tone to which it is added. The descriptive statements which follow are to be interpreted only generally, because of the many exceptions to them.

1 -adds depth to any stop;
2 -adds a dull, metallic quality useful in powerful stops;
3 -adds fundamental power to any stop (the most useful Controller) ;
4 -adds brightness and carrying power to any stop;
5 -adds the String and orchestral Reed quality to any stop;
6 -adds brilliance to any stop ;
7 -adds a '.Brass" quality when drawn in large proportion to the other Controllers, and a "String" quality when in small proportion;
8 -adds the octave of V (useful to supplement VII, but usually in smaller proportion than VII) ;
9 -adds great brilliance (to be used only in Full Organ combinations, or as the ending of String "curves"; exceptions to this rule are rare).

The four families of organ tone are as follows:

I	Foundation	00 8855 000	(Open Diapason)
II	Reed	00 8888 000	(Tuba)
III	Flute	00 8400 000	(Flute)
IV	String	00 1374 000	(Orchestral String)

(Note: The numbers represent the degree to which each drawbar is pulled out.)

There are many amplifications and variations of these four general patterns, but the majority of the stops are based on these four configurations.

The **Foundation** stops of the organ are usually **Diapasons**. The tone of the Diapason is the most suitable organ tone for the accompaniment of the human voice. Organ solos are often played on the Diapasons. The Diapasons have a distinctly organ tone, and do not imitate any orchestral instrument. It is heavy and sometimes dull in quality, which fits it well for works whose texture is mostly in chords.

The word Open in the name Open Diapason refers to the open metal pipe which is required in the pipe-organ to give Diapason tone. The first two Controllers are in the zero position. The next four Controllers appear in pairs of receding strength towards the right. Any number-arrangement in which these four Controllers are paired thus, with the second pair weaker than the first, produces some sort of Diapason tone. All of the following are for this reason Diapasons :

00 8877 000
00 8811 000
00 7744 000
00 6633 000
00 2211 000

Added brightness can be given to any Diapason by adding the seventh and eighth Controllers in receding strength. Thus our typical Diapason may become :

00 8855 310

The **Reed** tones are more brilliant and more numerous than any other family stops. They are the solo stops of the organ. Very seldom is a Reed used for purposes of accompaniment (except when a strong counter melody is wanted).

A Reed tone as sombre as a Diapason or one as piercing as an Orchestral Trumpet can be produced on the Controllers. It is possible to make a Trumpet more piercingly brilliant than any naturally blown Trumpet.

The typical Reed may be produced by the number-arrangement : 00 8888 000
The first two Controllers are at zero, as they usually are. The next four are equal in strength. Brightness could be added to the Reed by adding the seventh and eighth Controllers in receding strength, as in the Diapason just considered : 00 8888 310
This would, however, not be as bright in tone as a Tuba generally is. A better arrangement would be : 00 8888 750

A typical pipe organ **Trumpet** is based on the typical Tuba Reed above, but has less of the fundamental (third Controller), thus: 00 7888 750
An even more piercing Trumpet could be made in this fashion: 02 5788 850

The second Controller has been added, to give "clang" to the tone. The third and fourth Controllers have been weakened, to make the tone less heavy. Heaviness makes the stop seem like a Tuba, which is the organ world's name for a powerful organ Reed tone.

Other important Orchestral Reeds are the **English Horn, Oboe**, and **Clarinet**. They are remarkably like the Orchestral Violin in harmonic structure.

Oboe	00 1271 210
English Horn	00 3471 210
Clarinet	00 6170 310
Orchestral Violin	00 1374 321

The fundamental (third Controller) of the English Horn is always stronger than that of the Oboe. The fundamental of the Clarinet is always as strong, or almost as strong, as its fifth Controller. The sixth Controller of the Clarinet is absent in the foregoing arrangement. It should be absent or very weak in all Clarinets. It is even possible to suggest a Clarinet tone in the following combination: 00 6060 000

The essence of the Clarinet tone will be seen to consist of just the fundamental and the fifth Controller tone.

The **Orchestral Violin** has its sixth Controller in great prominence. This adds the quality known as brightness to all Strings.

The **accompaniment** stops of the organ are the **Flutes**. Being of a more or less colorless quality, they lend themselves to chorded backgrounds.
A typical Flute tone is: 00 8400 000

This example is of an open, unstopped pipe. A more powerfully-blown Open Flute would become : 00 8532 000

In this number-arrangement two additional harmonics appear. The figures recede to the right rather sharply.

A Stopped Flute pipe has as its lowest harmonic the fifth Controller tone (the twelfth): 00 6020 000

The fifth Controller is always much weaker than the third Controller in such a stop.

The **String** stops are the most versatile of all the four major divisions of tone. They can be used as both solo and accompanimental stops. String tone is nearly always formed on a number-arrangement which appears as a "curve": 00 1374 321

The apex of the curve is reached at the twelfth, or fifth Controller. There are many hundreds of basic number-arrangements of String curves, and the entire range of them could be made to be either dull or bright-toned Strings by varying the sharpness of the curve.

A **Gemshorn** tone, although not a String, is closely related to a String. A typical Gemshorn appears : 00 4531 000

The foregoing rules are indispensable in understanding the Harmonic Controllers of the Electric Organ. They have been reduced to the minimum. An entire volume might be devoted to the amplifications of these rules and the exceptions to them.

It is necessary to realize that proportion is the essential thing in all these number-arrangements. The arrangements :

00 8400 000
00 4200 000
00 2100 000
00 6300 000

all have the same timbre, because the fundamental in all cases is twice the strength of the Controller following it. It is not possible to take such a combination as :

00 5300 000

and diminish each Controller one point and have the same timbre. If we did so, the above combination would become :

00 4200 000

You can easily see that these two combinations are of a different proportion, and will therefore produce a different timbre. Don't make the common error of diminishing all the Controllers of an arrangement by one point expecting to keep the same timbre.

ROMANTIC ORGAN

This is a stop-list of a medium-sized pipe organ. It contains most of the stops which are called for in the editing of pipe organ music. Opposite each stop name is given the harmonic setting for the comparable effect on the Hammond Organ. This list can be used as a guide. But there are hundreds of tones available on the Hammond Organ which have never been available on pipe organs.

SWELL

Gedeckt 16'	32 2000 000
Geigen Diapason 8'	00 4743 221
Stopped Diapason 8'	00 5141 lOO
Aeoline 8'	00 2311 000
Salicional 8'	00 2433 222
Viol Da Gamba 8'	00 2423 221
Voix Celeste	00 2434 432
Octave Geigen 4'	00 0414 231
Traverse Flute 4'	00 0601 010
Fifteenth 2'	00 0002 223
Cornet V	004446533
Oboe 8'	004764210
Trumpet 8'	006867531
Clarion 4'	00 0545 452
Double Trumpet 16'	366420000
Vox Humana 8'	003453542
Tromba 8'	016554430

SOLO

French Horn 8'	00 7531 000
English Horn 8'	00 3744 320
Grosse Flute 8'	00 8723 l00
Tromba 8'	00 6868 642
Bassoon 8'	08 7500 000
Heckelphone 8'	00 6776 400

GREAT

1st Open Diapson 8'	00 6634 221
2nd Open Diapason 8'	00 6433 322
Hohl Flute 8'	00 5311 000
Gemshorn 8'	00 3511 110
Octave 4'	00 0525 342
Flute Triangulaire 4'	00 0503 010
Super Octave 2'	00 0006 234
Mixture IV	000564123

CHOIR

Dulciana 8'	00 3320 000	Flute d'Amour 4'	00 0501 000
Unda Maris 8'	00 3421 000	Principal 4'	00 0415 112
Melodia 8'	00 5200 000	Flageolet 2'	00 0004 112
Concert Flute 8'	00 4511 000	Nazard 2.2/3'	00 0040 030
Diapason 8'	00 3412 210	Tierce 1.3/5'	00 0000 500
Orchestral Flute 8'	00 0805 000	Clarinet 8'	00 7462 420

This is the stop-list of a Baroque-Type pipe organ, with registrations for similar effects.

SWELL

Gedeckt 8'	00 5141 100
Salicional 8'	00 3433 110
Vox Celeste 8'	00 2322 110
Principal 4'	00 0515 031
Harmonic Flute 4'	00 0804 011
Piccolo 2' Flute	00 0006 132
Siffloete 1'	00 0000 005
Mixture 3 ranks	00 0087 064
Contra Fagotte 16'.	17 5321 000
Trumpet 8'	00 6786 530

COMBINATIONS

(available thru presets)

00 5433 110	Gedeckt and Salicional
00 5844 111	Gedeckt and Harmonic Flute
00 5545 131	Gedeckt and Principal
00 5845 131	Gedeckt, Prin. and Harm.
00 5846 132	Gedeckt, Prin., Harm. Flute & Piccolo
00 6886532	Ged" Prin., Harm. FI., Picc. and Trumpet
00 6887 554	Full Swell with Mixture

GREAT

Quintadena 16'	23 0000 000
Principal 8'	00 5754 210
Hohl Flute 8'	00 6320 000
Octave 4'	00 0626 121
Octave 2'	00 0007003
Mixture 4 ranks	00 0064 064

COMBINATIONS

(available thru presets)

00 5756221	Principal and 4' Octave
00 5757 223	Principal and 4' and 2' Octaves
23 5767 264	Full Great with Mixture
23 6887 564	Full Organ coupled

CHOIR

Gedeckt 8'	00 5030 100
Flute d' Amour 4'	00 0603 020
Principal 2'	00 0006 002
Quint 1-1/3'	00 0000 060
Clarinet 8'	00 4262 421

COMBINATIONS

(available thru presets)

00 5633 120	Gedeckt and Flute d'Amour
00 5666 122	Gedeckt, Flute d'Amour and Principal
00 5036 102	Gedeckt and Principal
00 0606 022	Flute d'Amour and Principal
00 5666 162	Ged., Fl. 4' Prin. and Quint

THEATRE ORGAN STOPS

Tibia 16'	72 0020 000	Tibia 8'	00 8240 000	Flute 4'	00 0803 030
Bourdon 16'	54 3100 000	Concert Flute 8'	00 6421 000	Piccolo 4',	00 0600 000
Diapason 16'	64 3322 000	Diapason 8'	00 5642 110	Octave 4'	00 0545 321
Solo Strings 16'	25 4421 000	Solo Strings 8'	00 2366 542	Solo Strings 4'	00 0436 555
Contra Viol 16'	24 3210 000	Viol d'Orchestre 8'	00 2444 322	Viol 4'	00 0344 232
Contra Celeste 16'	23 4321 000	Viole Celeste 8'	00 2323 211	Octave Celeste 4'	00 0324 220
Vox Humana 16'.	14 3110 000	Vox Humana 8	00 3400 332	Vox Humana 4'	00 0433 042
Oboe Horn 16'.	47 5430 000	Oboe Horn 8'	00 4763 000	Oboe Horn 4'	00 0606 310
Saxophone 16'	27 3210 000	Saxophone 8'	00 2478 500	Clarion 4'	00 0515 230
Clarinet 16'	35 2000 000	Clarinet 8'	00 8382 700	Tibia 2'	00 0006 001
English Horn 16'	25 3442 lOO	English Horn 8'	00 3577 540	Piccolo 2'	00 0005 111
Ophicleide 16'	47 7600 000	Tuba 8'	00 5680 400	Twelfth.	00 0060 020

Melody		**Accompaniment**	
Tibia 8'	00 8240000	Vox Humana 8'	00 3400 332
Oboe Horn 8'	00 4763 000	Viole Celeste 8'	00 2323 211
Saxophone 8'	00 2478 500	Soft Tibia	00 6130 000
Krumet 8'	00 0185 786	Soft Tibia	00 5120 000
English Horn8'	00 3577 540	Concert Flute8'	00 6421 000
Solo Strings 8'	00 2366 542	Concert Flute8'	00 6421 000
Vox Humana 8'	00 3400 332	Soft Concert Flute	00 4210 000
Oboe Horn 16'	47 5430 000	Viole Celeste	00 2323 211

SOME OTHER DISTINCTIVE TONE QUALITIES

Melodies (single or double-note)		**Ensembles and accompaniments**	
00 4680 006	00 5288 822	04 3508 863	00 5334 003
00 3460 704	00 1478 630	05 7800 006	00 6654 321
00 5070 052	00 6080 808	20 3004 845	00 2353 221
00 3558 808	00 8005 005	46 8080 008	35 8857 004
00 6005 700	36 0000 008	00 5006 006	00 1377 865
00 2268 888	08 6000 808	00 5000 345	00 3500 420
00 4678 333	07 5646 006	00 5505 403	52 4660 055 (8va.)

ADDING STOPS

While stops cannot be drawn on the Hammond Organ one after the other to produce a "combination" of registers, the effect of a combination can be achieved, but in a different manner. The drawbar numbers for the individual stops are listed, and then the largest number for each harmonic becomes the proper intensity in the final ensemble

TWO EXAMPLES

1.	Voix Celeste	00 2434 432
	Stopped Diapason	00 5141 100
	Ensemble	00 5444 432

2.	Diapason 8'	00 3412 210
	Principal 4'	00 0415 112
	Ensemble	003415212

Here is an alternative method, said to be more realistic:

Open Diapason 8'	0	0	8	8	7	6	5	4	0
Open Flute 8'	0	0	7	6	3	2	0	0	0
Salicional 8'	0	0	4	5	5	4	3	2	2
Ensemble	0	0	19	19	15	12	8	6	2

In no case is any carrying done between columns! We are summing as many as nine separate quantities. Since any drawbar may be drawn out only to 8, it is necessary in most cases to divide down by two:

```
0  0   19 19 15 12   8  6  2
------------------------------
0  0   10 10  8  6   4  3  1
```

It's still too big, so we will divide down again:

```
0  0   10 10  8  6   4  3  1
------------------------------
0  0    5  5  4  3   2  2  1
```

Divided down so that no drawbar's total is greater than eight, we find the combination works out to 00 5543 221.

You can see from looking at it that this combination shows the addition of the string much more than a combination by the traditional method will. The Open Flute doesn't work out to be so prominent as one might expect, but from experience with pipe organs, one might expect a Melodia added to a big Open will not make as much difference in the loudness as might be expected. It will add "fatness" to the sound. We are unable on a Hammond Organ to suggest this fatness other than by switching on another speaker cabinet, perhaps.

Let's take one more example to compare the traditional and the additive methods for combining stops. This time we will combine stops of more than one pitch:

Singend Gedack 8'	0	0	8	4	4	0	0	0	0
Copula 4'	0	0	0	6	0	5	0	2	1
Quinta 2-2/3'	0	0	0	0	4	0	0	3	0
Blockflote 2'	0	0	0	0	0	4	0	0	2
Traditional Combination	0	0	8	6	4	5	0	3	2

If you drew these stops on the Positiv of your local Baroque-style pipe organ, you would hear something more like this:

Singend Gedack 8'	0 0 8 4 4 0 0 0 0
Copula 4'	0 0 0 6 0 5 0 2 1
Quinta 2-2/3'	0 0 0 0 4 0 0 3 0
Blockflote 2'	0 0 0 0 0 4 0 0 2

Sums	0 0 8 10 8 9 0 5 3

Halved to fit	0 0 4 5 4 5 0 3 2 (more realistic)

Another help toward making a sound from the Hammond believeable is to use it in an appropriate range. Generally, the more complex the character of the sound, the more convincing and musical it will be above Middle C. You should be careful adding 16-foot tone to Hammond registrations. They become not grave and serious but muddy very quickly if not handled with delicacy (expecially below Middle C).

Let's analyze a typical stoplist and build up some full choruses from it next.

Standard Hammond Organ Presets

SWELL/UPPER

C#	8' Stopped Flute	00 5320 000
D	8' Dulciana	00 4432 000
D#	8' French Horn	00 8740 000
E	8' Salicional	00 4544 222
F	Flutes 8' & 4'	00 5403 000
F#	8' Oboe	00 4675 300
G	8' Swell Diapason	00 5644 320
G#	8' Trumpet	00 6876 540
A	Full Swell	32 7645 222

GREAT/LOWER

C#	8' Cello	00 4545 440
D	Fl 8' & Str 8'	00 4432 220
D#	8' Clarinet	00 7373 430
E	8' Salicional*	00 4544 222
F	Great w/o Reeds	00 6644 322
F#	8' Open Diapason	00 5642 200
G	Full Great	00 6845 433
G#	8' Tibia Clausa	00 8030 000
A	Full Organ w/16'	42 7866 244

* On some models: E Diap, Str & Fl 8' [registration unavailable]

Theatrical Organ Drawbar Equivalents

SOLO/UPPER

C#	8' French Horn	00 8740 000
D	ibia 8' & 2'	00 8408 004
D#	8' Clarinet	00 8080 840
E	8' Novel Solo	08 8800 880
F	16' Theatre Solo	60 8088 000
F#	8' Oboe Horn	00 4685 300
G	16' Full Tibias	60 8807 006
G#	8' Trumpet	00 6888 654
A	16' Full Thtr Brass	76 8878 667

ACCOMPANIMENT/LOWER

C#	8' Cello	00 4545 440
D	8' Dulciana	00 4432 000
D#	8' Vibraharp	00 4800 000
E	Vox 8' & Tib 4'	00 3800 460
F	8' String Accomp	00 6554 322
F#	8' Open Diapason	00 5642 200
G	16' Full Accomp	43 5434 334
G#	8' Tibia	00 8030 000
A	16' Bombarde	84 7767 666

Let us analyze the layout of these preset schemes. First, the sharps are almost always single stops of solo character. This makes them easy to locate. Correspondingly, the naturals are accompanimental tones and ensembles graded in strength from soft to loud. Everyone is at least subconsciously used to this sort of layout, so we will preserve it when offering new schemes to spruce up a Hammond's voicing.

Unfortunately, many of the tones, especially in the standard scheme, are too much alike and too plain. Strings need to be a bit brighter and flutes a bit clearer.

Diapasons and chorus reeds such as trumpets tend to be too much alike; hornlike for the diapasons and choked for the trumpets. The ensembles have no sparkle. We can fix this to some degree if we take the stoplist of a well-appointed two-manual pipe organ and use the Hammond preset keys in much the same way as we would combination pistons.

The following is a simple way to improve the standard scheme:

SWELL/UPPER

C#	8' Stopped Flute	00 6142 100
D	8' Dulciana	00 4433 211
D#	8' French Horn	00 8765 321
E	8' Salicional	00 4554 322
F	Flutes 8' & 4'	00 5623 012
F#	8' Oboe	00 3675 321
G	8' Swell Diapason	00 7765 432
G#	8' Trumpet	00 7877 766
A	Full Swell	32 7646 346

GREAT/LOWER

C#	8' Cello	00 4544 221
D	Fl 8' & Str 8'	00 5643 322
D#	8' Clarinet	00 6272 532
E	8' Salicional*	00 4544 443
F	Great w/o Reeds	00 6845 355
F#	8' Open Diapason	00 8876 542
G	Full Great	00 7868 576
G#	8' Tibia Clausa	00 8050 200
A	Full Organ w/16'	42 7868 467

* On some models:

E	Diap, Str & Fl 8'	00 5634 211

Here are some typical pipe organ settings:

GREAT

16' Dulciana	30 4200 000
16' Quintadena	54 1100 000
8' Principal	00 7876 432
8' Stopt Diapason	00 6132 100
8' Dulciana	00 3432 100
4' Octave	00 0607 065
4' Flute d'Amour	00 0501 031
4' Dulcet	00 0304 032
2-2/3' Nazard	00 0060 030
2' Fifteenth	00 0005 004
2' Blockflute	00 0004 003
1-1/3' Fourniture IV	00 0000 066
16' Trombone	65 6554 211
8' Trumpet	00 8877 665
4' Clarion	00 0708 077
4' Clear Flute	00 0707 042

SWELL

16' Bourdon	63 1100 000
8' Geigen Diapason	00 6787 654
8' Claribel Flute	00 7835 210
8' Viola Pomposa	00 5544 322
8' Aeoline	00 2221 111
4' Geigen Octave	00 0607 076
4' Dolce	00 0505 044
2-2/3' Twelfth	00 0050 040
2' Piccolo	00 0005 004
1-3/5' Tierce	00 0000 500
1-1/3' Larigot	00 0000 050
1' Fife	00 0000 005
8' Tuba	03 7888 777
8' Trumpet	00 6787 665
8' Oboe	00 2465 432
8' Clarinet	00 5162 431
8' Vox Humana	00 3672 622

We can use these pipe organ settings as a basis for a new set of preset key drawbar combinations, It keeps solo stops on the sharp keys and accompaniments and choruses on the naturals, all in order of power. This is the finished data set:

Revised Hammond Organ Presets

SWELL	DESCRIPTION	CONTENT	REGISTRATION

C#	Softest Solo	Viola Pomp	00 5544 322
D	Softest Accomp	Aeoline	00 2221 111
D#	Medium Solo,	Claribel Fl	00 7835 210
E	Strings,	VP Ael Dolc	00 4635 244
F	Diaps & Flutes	Geig Cbl Clr	00 3736 243
F#	Orch Solo Reed	Oboe	00 2465 432
G	Fanfare,	Tuba	03 7888 777
G#	Brass Solo,	Trumpet	00 6787 665
A	Full Swell	Flues & Trump	32 4858 465

GREAT			

C#	Softest Solo	St Diap	00 6132 100
D	Softest Accomp	Dulciana	00 3432 100
D#	Medium Solo,	St Diap Fl d'Am	00 6633 131
E	MF Flues to 2'	Fl Dul Block	31 6725 122
F	Prncpls to 2'	8, 4, 2-2/3, 2	32 4878 266
F#	Great Trumpet	Trump	00 8877 665
G	Full Great	Prncpls Reeds	32 7858 388
G#	Reed Chorus,	Tromb, Trump Cl	22 6756 455
A	Full Organ,	incl Tuba	43 6868 388

Jazz, Gospel and Blues Drawbars

First, the upper manual : A basic "Jimmy Smith" type setting is 88 80000 00. If you push in that first 8, you can "dry" out the sound a bit... if you pull out that fourth drawbar you can sharpen it (hence resulting in the famous Charles Earland sound.) When you have this setting have your percussion tabs up and on, though of course you can always experiment with them to create other sounds. As for chorus and vibrato, C-3 or chorus/vibrato OFF is most comon. A useful modification is to pull out that last drawbar. Gives a whole new sound (a Groove Holmes type setting !) on the organ by simply turning the percussion feature off. Probably want the Leslie on fast.

CHORDAL SETTINGS : UPPER MANUAL. You may want to have the B pre-set set up to the registration described above and use Bb for for a buildup or big chordal soloing. For this, you might use ALL STOPS OUT (88 8888 888) or TIBIA (a favorite for gospel players) 80 8808 008). Probably want the Leslie on fast when using these settings with big fat chords. That makes the sound a bit more smooth and swishy.

And speaking of swishy, don't forget 80 0000 888... which is a sound very commonly associated with Jimmy Smith (visa vis Mac The Knife). Note that with any drawbar setting, its not only the registrations that make the sound, but also WHAT you're playing.

LOWER MANUAL SETTINGS - - for walking bass lines (which are usually done by the left hand, and augmented in the pedals) you might use an 80 8000 000 type setting. Adjust the middle drawbar (80 ?800 000) for growl. Some people swear that you have to turn the vibrato off when you're walking LH bass, but, that opinion is not universal. When walking LH bass you might have the pedals set to 80 and TAP or STOMP a single note at a time. This method is almost universal in the professional Jazz organ world., the idea being to to give your bass line a bit more attack. Without it, on some organs your bass line might end up sounding a bit syrupy.

LEFT HAND CHORDS - - Sometimes, you may want to play pedals and chords. If you have an 80 8000 000 type setting, things are going to sound way too muddy if you try to play chords too low on the manuals. So your choice is : play chords only higher up, but keep the 80 8 so you can easily go back to LH bass, or - - push in the first two drawbars... as long as the first two are in, you can play chords fairly low down without them sounding too muddy. A commonly used setting is something like 00 88000 00. If you're a gospel player, you might even try a TIBIA type setting like 00 880 808. If you play LH chords and pedals, playing the root with your feet, a rootless chord in your LEFT hand, then the melody high up in the LM or in the UM very legato and connected, the organ's really gonna scream, especially if you know how to work the Leslie.

Here is a collection of drawbar/registration settings which were posted on an old website, b3player.com.

Soft Gospel Solo, ----------	08 8500 000 (lower manual)
	30 (pedal)
	00 0850 000 (upper manual);
Soft Gospel, ----------------	00 8800 000
All Even, --------------------	00 8805 005
Full, -------------------------	88 8800 008
R&B, ------------------------	00 0800 000
Shouting, ------------------	88 8808 008
Shouting 2, ----------------	88 8888 888
Soft Ballad/Block Chords -	00 0850 000
Jimmy Smith, --------------	88 8000 000 (with soft, short, third harmonic percussion and C3 chorus)
Cap’n Jack 1, --------------	80 0000 888 (with soft, fast, third harmonic percussion and C3 chorus)
Cap’n Jack 2, --------------	80 0008 888 (with soft, fast, third harmonic percussion and C3 chorus)
Ballad solo, ----------------	80 8000 008
Screamer, ------------------	88 8000 888
Fake Bass Player, ----------	80 8000 000.

Some more suggestions:

"Green Onions Groove" - 88 8800 000
"ELP Sound" --------------- 88 8000 000
"Tom Coster" ------------- 88 8800 000
"Jesse Crawford" -------- 80 0800 000
"Joeys Sounds" ---------- 88 8400 080
"Argent Sounds" --------- 88 0000 000
"Groove Holmes" -------- 88 8000 008
"A Whiter Shade" -------- 85 8000 876
"Oles Sounds" ------------ 88 8000 888
"Mc Duff Sounds" ------- 88 7616 080
"John Lord Sounds" ----- 88 8400 000
"Blues settings" ---------- 88 5324 588
"Tony Sounds" ----------- 70 4008 684
"Theater settings" ------- 77 5335 331
"Gospel settings" -------- 81 8051 606
"Joe D Sounds" ---------- 88 8400 080

80 8800 004 ---- great for playing soft chords
87 6543 234 ---- nice string sound
00 8030 000 ---- nice flute sound
87 6556 788 ---- great for shouting chords
88 8567 321 ---- Diapson sound for nice chords..Leslie switch can be turned off and on with these combinations
80 8808 088 ---- for choir
86 8800 004 ---- melvin crispel sound w/c3
88 8800 568 ---- alt
68 8888 888 ---- alt
88 8800 000 ---- bass/power chords
84 8600 046 ---- meditation/hynms
80 8808 008 ---- good ole gospel
80 8808 000 ---- playing by yourself (pad)
00 8800 000 ---- playing w/ (others pad) annointed jazz
00 8400 002 ---- quiet music
00 8888 888 ---- driving a service use chorale w/ no v/c it really talks
00 8888 001 ---- use for lots of left hand
00 8880 088 ---- USE FOR CONTEMPORARY ONLY w/ lots of stacks w/c3
00 8000 000 ---- glisses or appeggios, also great runs over chords
00 8808 008 ---- great for congregationals and when under piano/bass
00 8880 888 ---- shout/and preach
80 3000 048 ---- jazzy/"faith" by G.P.
88 8888 888 ---- full blown shout
85 8808 888 ---- Shout sound if gets to annoying
88 8800 000 ---- can be used w/out vibrato/chorus and leslie on or off for funk sound,but experiment diff. ways
00 8080 880 ---- slow mellow chords
00 8500 000 ---- mellow chords

00 7300 000 ---- mellow chords
00 4808 008 ---- 3rd perc/soft c3 use this to start solo or hymm then add to it
80 8000 000 ---- two hand chords
00 0808 880 ---- nice for l.h. chords
00 8880 888 ---- backing up preacher w/out an overwhelming bass
80 0000 008 ---- eslie fast if you have outstanding chops!!! and can match preacher word for word this might be for you.
84 8300 008 ---- alt
33 8838 388 ---- with bass player(one of my favorites to use when you need to get the volume up)
80 8808 008 ---- basic gospel sound
72 8714 111 ---- worship chords
88 8800 000 ---- can be used w/out vibrato/chorus and leslie on or off for funk sound,but experiment diff. ways
00 8080 880 ---- slow mellow chords
00 8500 000 ---- mellow chords
00 7300 000 ---- alt
00 4808 008 ---- 3rd perc/soft c3 use this to start solo or hymm then add to it
80 8000 000 ---- two hand chords
00 0808 880 ---- nice for l.h. chords
00 6502 333 ---- alt
56 6400 000 ---- alt
00 8880 888 ---- backing up preacher w/out an overwhelming bass
80 0000 008 ---- leslie fast if you have outstanding chops!!! and can match preacher word for word