

# Model 945 Organ (v 2)

By Les Deutsch

[http://www.nightbloomingjazzmen.com/NBJ Organ Software.html](http://www.nightbloomingjazzmen.com/NBJ_Organ_Software.html)

I own a Rodgers Model 945 organ. It is a first generation Rodgers Parallel Digital Imaging (PDI) instrument that I purchased the year it was introduced. It is a very complete three-manual American Classic organ in the style of the large Aeolian Skinner instruments from the mid 20th century. I have enjoyed it immensely since the day it arrived and barely squeezed through my front door! You can see the original Rodgers one-page glossy add with specifications here.

This is also the instrument that I have used to create all of my Hauptwerk organ recordings to date. I am building a large three-manual double bolster theater organ console that I intend to use as a controller for Hauptwerk theater organs - but this is another story.

I plan to install a switch on my 945 to turn off its internal sounds yet still allow Hauptwerk to play through the Rodgers' auxiliary audio input. When this is accomplished, I can use the 945's stops and couplers to control Hauptwerk directly, completing the integration of the hardware console with the Hauptwerk software sound generator. In anticipation of this, I have created this Hauptwerk organ. It matches the Rodgers' stop and coupler specification exactly and is a reasonably good approximation of the overall sound. Of course, it also plays as a stand-alone Hauptwerk instrument.

I also took it as a challenge to do this using only free Hauptwerk rank samples. This means that everyone in the Hauptwerk community can now have a complete three-manual American Classic organ. It may not be perfect, but it is real good and its free. The samples come from four free sources. Most of the organ uses the ranks from the excellent Jeux d'Orgues instrument. A few stops come from the Paramount 310. The harpsichord is from Sygsoft. Finally, I needed a chime stop but there were no free Hauptwerk stops that I could discover. Instead, I used the free soundfont developed by John Tay for use with the Miditzer project and extracted the one chime sample. John has granted me permission to distribute this sample for noncommercial Hauptwerk use. I created the Chimes rank from the single sample and it is included here as a free unprotected rank that can be used by others in new organ design. In order to install and use the Model 945 organ, you must first install the Jeux d'Orgues, Paramount 310, and Sygsoft Harpsichord instruments. You must abide by each of their individual licenses as well as the Hauptwerk license. However, the reward is great for your efforts!

As usual, I have made my custom organ definition file available so that others can see how I have accomplished this, make their own modifications, and add to the rich set of instruments available to the Hauptwerk community.

I thank the creators of the Jeux d'Orgues, Paramount 310, and Sygsoft Harpsichord samples for providing the organ community with excellent sampled ranks that can be used freely - helping to bring a rich variety of organ sound to the users of Hauptwerk.

For Version 2, I have completely updated the organ for Hauptwerk V4. This organ will not longer run in Hauptwerk 3. I have disabled the wind model since I have way to run it here in the United States anyway. Some users reported problems with this organ and the wind model, forcing them to disable the model anyway. I have completely redone the tremulants to make them more realistic. In addition, I have added a crescendo pedal. I used Al

Morse's file program to add the pedal and then passed the result through my own software to generate the displays and allow all the stops and couplers to be seen on one normal-sized screen.

The specification of the Model 945 Organ is as follows. I have made notes where the specification differs from the original Rodgers.

	Pedal (Exp with Great)	Choir (Expressive)	Great (Expressive)	Swell (Expressive)
32'	Contra Bourdon	8' Gedackt Pommer	16' Contra Violone	16' Lieblich Bourdon
16'	Principal	8' Concert Flute	8' Principal	8' Geigen Principal
16'	Subbass	8' Erzahler	8' Rohrflote	8' Bourdon
16'	Violone	8' Erzahler Celeste [3]	8' Flute Harmonique	8' Viola Celeste II
16'	Lieblich Bourdon (Sw)	4' Prinzipal	8' Gemshorn	8' Flute Celeste II
8'	Octave	4' Copula	4' Octave	4' Prestant
8'	Gedackt	2' Oktave	4' Spitzflote	4' Flauto Traverso
4'	Choralbass	1 1/3' Quintflote	2 2/3' Nasat	2' Flute a Bec
4'	Nachthorn	1' Sifflothe	2' Super Octave	Sequaltera II
	Mixture III [1]	Zimbel III [4]	2' Waldflote	Plein Jeu III [6]
32'	Contre Bombarde	8' Cromorne	1 3/5' Terz	16' Contre Basson
16'	Bombarde	8' Festival Trumpet *	Fourniture IV	8' Trompette
16'	Contra Basson (Sw) [2]	Tremulant	16' Kontra Trompete	8' Hautbois
8'	Trompette	Harp	8' Trompete	8' Vox Humaine
4'	Rohr Schalmey	Harpsichord	Chimes [5]	4' Clairon
4'	Choir to Pedal	16' Choir to Choir	Tremulant	16' Swell to Swell
8'	Great to Pedal	Choir Unison Off	16' Swell to Great	Swell Unison Off
8'	Swell to Pedal	4' Choir to Choir	8' Swell to Great	4' Swell to Swell
4'	Swell to Pedal	16' Swell to Choir	4' Swell to Great	8' Choir to Swell
8'	Choir to Pedal	8' Swell to Choir	16' Choir to Great	
4'	Choir to Pedal	4' Swell to Choir	8' Choir to Great	
			4' Choir to Great	

\* The "Festival Trumpet" is an "en chamade" rank so it does not express with the Choir. In addition, just like on the Rodgers, it does not couple to other manuals. This allows the rest of the Choir to be used in ensembles set against the Festival Trumpet using the Choir Unison Off

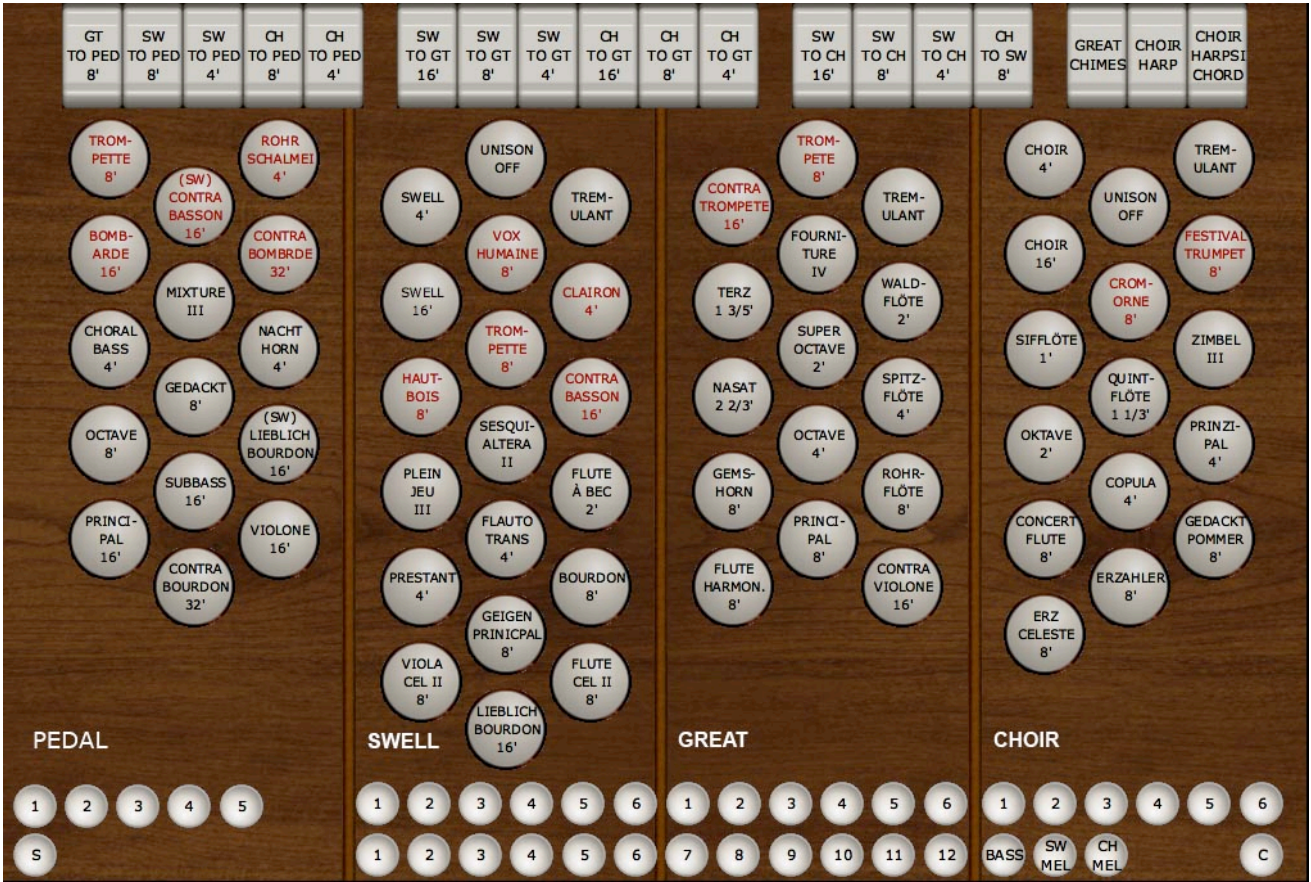
- [1] The Rodgers as a four-rank Mixture here.
- [2] The Rodgers has an independent sample here, still expressed with the Swell. I chose to make this a borrowed stop.
- [3] The Rodgers has a compound stop here with both the Erzahler and the celeste rank.
- [4] The Rodgers has a 4-rank Zimbel here.
- [5] The Rodgers has a "carillon" here. I chose to make this a "chimes" as I think this is more useful.
- [6] The Rodgers has a 4-rank Plein Jeu here.

The Rodgers, by default, has the Great and Pedal divisions expressing with the Choir. It has a coupler tab that is used to make these unexpressed divisions on demand. Although I know how I could emulate this using the CODM, it would have required creating two sets of Great divisions, adding a like number of ranks into RAM. I decided it was not worth the memory to do this, so I simply enclosed the Great and Pedal in their own expression box, giving it a thrid shoe on the console display page. I simply use Hauptwerk's "organ" options menu to assign my Choir swell shoe to either drive this new shoe or not, thus giving the same overall functionality.

All the displays are sized to fit comfortably on a 1024x768 pixel screen.



Here are the Console, Stop, and Crescendo Screens. They look somewhat like the real Model 945 organ:





[illegible]