



**HAUPTWERK**



VIRTUAL PIPE ORGAN



## **Aristide No. 1 v2**

### **User Manual v2.6.4**

Composite Sample Set  
Inspired by the Great Cavallé-Coll Organ  
at Saint-Ouen in Rouen France

(1890)



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# Welcome

Welcome to the first large update of Aristide No. 1, a composite sample set intended to imitate the sound of the the great Aristide Cavaillé-Coll organ at Saint-Ouen in Rouen, France.

For version 2 the mixture stops of Saint-Ouen have been reconstructed rank by rank using the original specifications of Aristide Cavaillé-Coll. The voicing of version 1 was performed by Lorenzo Bonoldi, the new and exchanged ranks of version 2 have been voiced by Thorsten Wege.

Aristide No. 1 v2 requires the following sample sets installed first:

- Notre-Dame de Metz (Milan Digital Audio),
- Saint-Etienne de Caen Surround v2.5 (Sonus Paradisi) and
- Dom Bédos Demo (Sonus Paradisi).

Aristide No. 1 v2 is a stereo sample set although several ranks have been implemented using both front and rear ranks.

The sound of this sample set differs significantly from the sound of Caen or Metz. The audio files of Caen and Metz contain pitch information, which the Hauptwerk™ program uses to tune the samples. In Aristide No. 1 all samples are loaded as if they would have been tuned to concert pitch. This preserves the original tuning from the day of recording. However, this technique requires manual tuning of all samples.

Apart from tuning, all ranks have been voiced carefully to imitate the wonderful sound of the Cavaillé-Coll organ in Saint-Ouen in Rouen as close as possible.

Dortmund and Potsdam, October 2018

*Christoph Schmitz*  
*Thorsten Wege*

# The Organ

## History of the Organ

The great organ of Saint-Ouen in Rouen, inaugurated in 1890, is the last masterpiece built by Aristide Cavallé-Coll. It is one of the most recorded organs of the world and one of the most beautiful from the french symphonic period.

The first organ was built in 1630 by Crespin Carlier. Twenty years later this organ was enlarged and revised by Thomas Morlet. Among other things he added a dorsal positive.

In 1888 Aristide Cavallé-Coll awarded the contract to rebuild it, as the organ of Carlier had fallen into disrepair. Cavallé-Coll reused approximately 20 stops in good condition and kept the casing of 1630. The organ contained 64 stops, 84 ranks, spread across 4 manuals and pedal. The compass of manuals was 56 notes, of the pedal 30 notes.

The Récit, the largest ever built by Aristide Cavallé-Coll, is almost an organ by itself with its 20 stops. The Grand-Orgue has two stops placed en chamade just below the front pipes.

This organ was inaugurated by Charles-Marie Widor on April 17, 1890. Later, his Symphony Gothique, was premiered on this organ, and dedicated to the memory of the bishop of Saint-Ouen of Rouen.

The organ case is listed as Historical Landmark since 1970, and the instrumental portion since 1976.



## Specification

Pédale	I. Positif	II. Grand-Orgue	III. Récit expressif	IV. Bombarde
Soubasse 32´	Montre 8´	Montre 16´	Quintaton 16´	Flûte 8´
Contrebasse 16´	Bourdon 8´	Bourdon 16´	Corno dolce 16´	Flûte 4´
Soubasse 16´	Gambe 8´	Violonbasse 16´	Diapason 8´	Doublette 2´
Basse 8´	Unda maris 8´	Montre 8´	Cor de nuit 8´	Cornet V
Bourdon 8´	Flûte douce 4´	Diapason 8´	Flûte traversière 8´	Fourniture V
Violoncelle 8´	Dulciana 4´	Flûte harmonique 8´	Viole de gambe 8´	<b>Bombarde 16´</b>
Flûte 4´	Doublette 2´	Bourdon 8´	Voix céleste 8´	<b>Basson 16´</b>
<b>Contre-Bombarde</b> <b>32´</b>	Plein-jeu V	Salicional 8´	Voix éolienne 8´	<b>Trompette 8´</b>
<b>Bombarde 16´</b>	<b>Cor anglais 16´</b>	Prestant 4´	Flûte octaviante 4´	<b>Clairon 4´</b>
<b>Contre-Basson 16´</b>	<b>Cromorne 8´</b>	<b>Trompette 8´</b> <b>(en chamade)</b>	Viole d'amour 4´	
<b>Trompette 8´</b>	<b>Trompette 8´</b>	<b>Clairon 4´</b> <b>(en chamade)</b>	Quinte 2 2/3´	
<b>Clairon 4´</b>	<b>Clairon 4´</b>		Octavin 2´	
			Cornet V	
			Carillon I-III	
			<b>Tuba magna 16´</b>	
			<b>Trompette</b> <b>harmonique 8´</b>	
			<b>Basson-Hautbois 8´</b>	
			<b>Clarinette 8´</b>	
			<b>Voix humaine 8´</b>	
			<b>Clairon</b> <b>harmonique 4´</b>	
			<i>Tremolo</i>	

### Foot Levers

Tirasse G.O., Tirasse Positif, Tirasse Récit, Copula G.O., Copula Positif / G.O., Copula Récit / G.O., Copula Bombarde / G.O., Copula Positif / Récit, Copula Bombarde / Récit, Octaves graves G.O., Octaves graves Récit / G.O., Octaves graves Récit, Octaves aiguës Récit, Anches Pédale, Anches G.O., Anches Positif, Anches Récit, Anches Bombarde, Trémolo Récit, Expression Récit.

## Composition of Mixtures

The mixtures are modeled rank by rank after the original Cavallé-Coll specifications.

### Bombarde: Fourniture V

	<b>C</b>	<b>f0</b>	<b>c1</b>	<b>c2</b>
Rank I	2 2/3'	4'	8'	8'
Rank II	1 1/3'	2 2/3'	4'	5 1/3'
Rank III	1'	2'	2 2/3'	4'
Rank IV	2/3'	1 1/3'	2'	2 2/3'
Rank V	1/2'	1'	1 1/3'	2'

Table 1: Bombarde: Composition of the Fourniture V

### Positif: Plein-Jeu V

	<b>C</b>	<b>f0</b>	<b>c1</b>	<b>c2</b>
Rank I	1'	1 1/3'	2'	4'
Rank II	2/3'	1'	1 1/3'	2 2/3'
Rank III	1/2'	2/3'	1'	2'
Rank IV	1/3'	1/2'	1'	2'
Rank V	1/4'	1/3'	2/3'	1 1/3'

Table 2: Positif: Composition of the Plein-Jeu V

### Récit expressif: Carillon I-III

	<b>C</b>	<b>f#0</b>
Rank I		2 2/3'
Rank II		1 3/5'
Rank III	1'	1'

Table 3: Récit expressif: Composition of the Carillon I-III

## Appel d'anches Positif

The Appel d'anches Positif works differently in comparison to standard French Appel d'anches. In Rouen this combination pedal is non-latching. It engages (and disengages) both Trompette 8 and Clarion 4 on the Positif simultaneously. These two stops can be also engaged and disengaged individually without the combination pedal. I tried to imitate this behavior as close as possible. As these two stops are not placed on an individual pallet box, their original stop labels are colored black and not red.

# Requirements

## Hard- and Software Requirements

Aristide No. 1 can be used with the Hauptwerk™ virtual pipe organ software, available from Milan Digital Audio for both PC and Mac. The software can be found on the Internet at <http://www.Hauptwerk.com>. Hauptwerk™ functions with both currently available 32-bit and 64-bit operating systems. Hauptwerk™ Advanced Edition is highly recommended. A high-performance computer is required to experience full, flawless and convenient operation of this sample set.

Furthermore, the sample set requires the following sample sets installed first:

- Notre-Dame de Metz (Milan Digital Audio),
- Saint-Etienne de Caen Surround v2.5 (Sonus Paradisi) and
- Dom Bédos Demo (Sonus Paradisi).

## RAM Requirements

This extension requires Hauptwerk™ 4 and higher.

Table 4 on the following page lists approximate numbers for the amount of RAM (memory) the sample set requires with various different loading options set. None of these numbers take into account the RAM needed by the operating system and the Hauptwerk™ program itself. Where no number is given, that particular loading option (although valid) hasn't been tested, mainly because it wouldn't make sense to use it.



	24 bit	20 bit	16 bit	14 bit
Uncompressed, multiple loops, multiple releases	31496 MB	31496 MB	15899 MB	●
Lossless compression, multiple loops, multiple releases	19630 MB	16452 MB	10315 MB	8933 MB
Lossless compression, single loop, multiple releases	●	●	8403 MB	7412 MB
Lossless compression, single loop, single release	●	●	5324 MB	4504 MB

Table 4: RAM Requirements

# Installation

The organ can then be installed with:

*Hauptwerk > File > Install organ or temperament ...*

In total three items will be installed:

- Data: 001988: Aristide No. 1 v2
- Organ: AristideNo1v2-1
- Organ: AristideNo1v2-2

AristideNo1v2-1 and AristideNo1v2-2 have two different graphical designs (screenshots of both designs can be found at <https://www.hauptwerk-organ.com/aristide>).

After installing the organ (for further information please refer to the Hauptwerk™ User Manual) you can load the sample set with

*Hauptwerk > Organ > Load organ ...*

A dialog is shown in which you can, among others, enable or disable ranks and action noises and adjust bit rate, compression and release sample truncation settings. For best quality we strongly recommend to choose 20 or 24 bit resolution and load all available loops and samples as shown in figure 1 on the next page.

## Attention!

**Samples with left and right components should be always loaded in MONO!**

Although Aristide No. 1 v2 uses several front and rear ranks it is not meant to be a surround sample set. Addition of these ranks make the sound more lively. Therefore, front and rear ranks should be routed to the same audio output group.

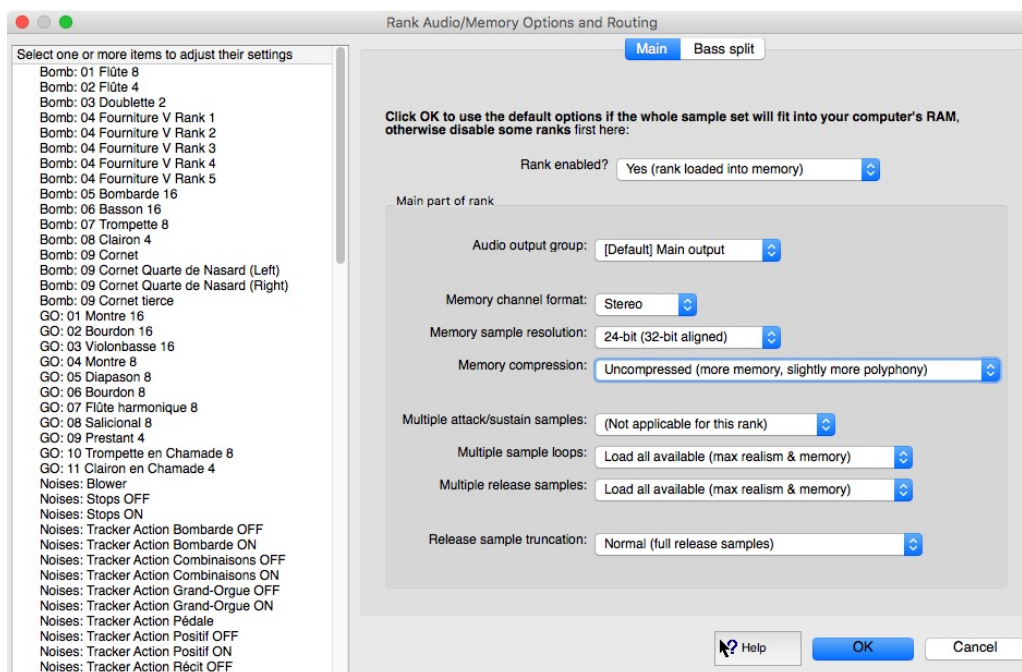


Figure 1: Rank Audio/Memory Options and Routing Screen

## Upgrading from Version 1

Aristide No. 1 v2 uses a new UniqueOrganID (001988). The UniqueOrganID of Aristide No. 1 v1 was 001951. Therefore, both extensions can be installed parallel. When installing version 2, version 1 will not be touched. But all virtual controls (keyboards, swell shoe, stops, etc.) have to be MIDI learned again. Furthermore, all organ combinations have to be programmed again (or exported from v1 and imported in v2).

## Un-Installation

The sample set can be easily un-installed using the build-in Hauptwerk™ un-installation function:

*Hauptwerk™ > File > Un-Install organ or temperament ...*

# Using the Sample Set

## Compass

The compass of the original organ is 56 (manuals) and 30 keys (pedal). The compass of the virtual organ has been extended to 61 (manuals) and 32 keys (pedal).

## Screens

The sample set comes with six screens, four of them in two different versions:

- Console (landscape)
- Single Jamb (landscape)
- Left Jamb (landscape and portrait)
- Right Jamb (landscape and portrait)
- Simple Screen
- About

All screens support 4k resolution in both landscape (3940 x 2160 pixel) and portrait mode (2160 x 3940 pixel).

Version 1 is faithful to the layout of the Aristide Cavallé-Coll console (ODF AristideNo1v2-1 — Lorenzo's preference); version 2 is a "Metzified" console (ODF AristideNo1v2-2 — my personal preference) with color rings on all stops indicating the corresponding divisions.

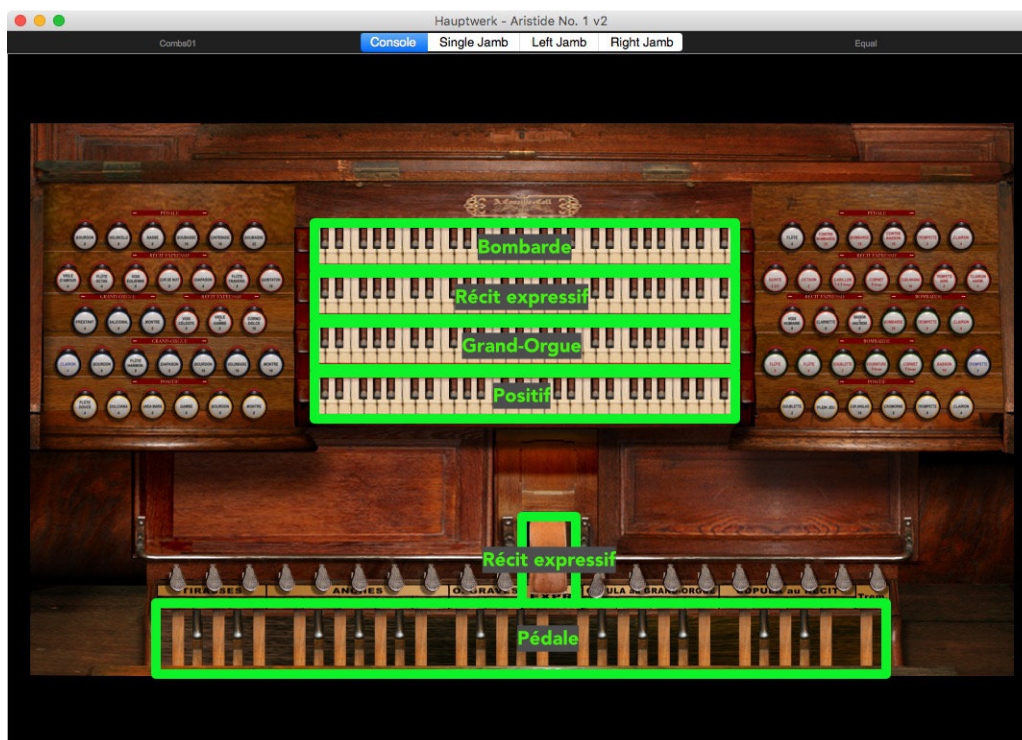


Figure 2: Console screen. The green boxes indicate the areas, which can be MIDI learned.

## MIDI Learn (Settings Auto-Detection)

From the console screen all four keyboards, pedal and the expression shoe can be connected to a MIDI console via MIDI learn (figure 2). The assignment of the divisions of the original organ is as follows:

- Pedal: Pédale
- Manual 1: Positif
- Manual 2: Grand-Orgue
- Manual 3: Récit expressif
- Manual 4: Bombarde

The sample set has one expression pedal for the Récit expressif.

MIDI-learn can be initiated by right-clicking on any virtual control and then choosing 'Auto-detect ...'.

# Contact

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Photos by courtesy of Thorsten Wege.

This manual is also available in French. French translation: Luc Dupuis

# Changelog

## v1.0.0 (June 1, 2016)

- First public release

## v2.0.0 (February 26, 2018)

### New features:

- Major workflow redesign to allow easier future updates.
- Working stops and combination pedals in console view added.
- Mixtures (**REC Carillon I-III**, **BOMB Fourniture V**, **POS Plein-jeu V**) now modeled after the original Cavaillé-Coll specifications.
- Several stops have been exchanged or enhanced:
  - **REC Viole de gambe 8** (Metz > Caen)
  - **REC Viole d'amour 4** (Caen front rank > Caen rear rank)
  - **REC Voix céleste 8** (Metz > Caen)
  - **REC Basson-Hautbois 8** (Metz > Caen)
  - **REC Tuba magna 16** (rear ranks added)
  - **REC Trompette harmonique 8** and **Clairon harmonique 4** (Metz > Caen front and rear)
  - **GO Clairon en chamade 4** (Saint-Maximin / Caen > Dom Bedos Demo)
- The combination pedal 'Appel d'anches Positif' now imitates the behavior of the combination pedal of the original organ: when pushed (non-latching) the two Positif stops **Trompette 8** and **Clairon 4** are engaged (disengaging both stops currently does not (yet) work).

### Bug fixes:

- While working on another project, we detected an undocumented bug in the ODF compiler, which affects the voicing of the key release noises. Corrected using a work-around.
- Corrected some minor graphical issues (finally, all graphic files have been touched and slightly improved).
- Some ranks were placed on the wrong wind-chest. I do not know, whether this has any audible effect. But anyhow, corrected.
- **GO Salicional 8** was under expression. Corrected.
- Improved tremulants for Metz Récit ranks.
- Mapping of several ranks has been improved. Every sample can now be voiced using the correct corresponding MIDI number.
- Some ranks were implemented inefficiently and required more RAM than necessary.

**v2.0.1 (March 8, 2018) (unpublished):****Updates:**

- Improved swell box parameters.

**v2.0.2 (April 28, 2018)****Updates:**

- Minor voicing updates.
- Improved swell box parameters.

**v2.0.3 (May 3, 2018) (unpublished)****Updates:**

- Minor voicing updates.

**Bug fixes:**

- **REC Corno dolce 16** corrected to sound as 16' (previously 8').

**v2.5.0 (May 28, 2018)****New features:**

- Manual and pedal compass extended to 61 and 32 keys, respectively.
- Implementation of a simple screen.

**Updates:**

- Master coupler assignment changed (Man1=Div1, Man2=Div2, ...).
- Voicing updates.

**Bug fixes:**

- The combination pedal 'Appel d'anches Positif' imitates now the function of the original combination pedal correctly.

**v2.5.1 (May 29, 2018)****Bug fixes:**

- Fixes an issue with the Hauptwerk™ master couplers: reeds were coupled, even if the corresponding reed coupler was not engaged.



### v2.5.2 (June 2, 2018)

#### Bug fixes:

- Fixes an issue, which was introduced with v2.5.1. **REC Basson-Hautbois 8** sounded only, when the combination pedal 'Appel d'anches Positif' was engaged.

### v2.5.3 (June 9, 2018) (unpublished)

#### Updates:

- Minor voicing adjustments.

### v2.5.4 (October 8, 2018) (unpublished)

#### Bug fixes:

- A few typos fixed.

### v2.5.5 (October 9, 2018)

#### New features:

- Added pedal tracker action release noises.
- New simple screen.

### v2.5.6 (November 11, 2018) (unpublished)

#### Bug fixes:

- A few audio sample fixed
  - **REC Flûte traversière 8**: 053-f, 054-f#, 055-g, 056-g#.

### v2.5.7 (December 17, 2019) (unpublished)

#### New features:

- Simple Screen updated.

### v2.6.0 (December 18, 2019)

#### New features:

- **BOM Fourniture V** repetition corrected.

### v2.6.1 (July 14, 2020)

#### Bug fixes:

- A few audio sample fixed
  - **GO Diapason 8**: 047-b, 049-c#.
  - **REC Flûte traversière 8**: 067-g, 068-g#.

### v2.6.2 (January 2, 2021)

#### Bug fixes:

- Combinaison Positif fixed.

### v2.6.3 (December 6, 2021)

#### Bug fixes:

- Right-clicking on two stops fixed:
  - **REC Cornet 5 Rangs**.
  - **BOMB Cornet 5 Rangs**.

### v2.6.4 (January 21, 2022)

#### Bug fixes:

- One audio sample fixed:
  - **REC Trompette harmonique 8**: 048-c.