

viscount  
*Classical*  
organs



Sonus 40





### Principal Features

- A particularly small console allows this comprehensive instrument to fit into the tightest of spaces
- 2 x 61 note tracker touch keyboards, velocity sensitive for orchestral and midi voices
- 30 note radiating concave pedal board
- 34 tilt tab speaking stops with hundreds of alternative voices from internal memory bank. 12 orchestral voices
- 4 fully editable organ styles (English, Baroque, Symphonic and Romantic)
- 16 alternative temperaments

### Playing Aids

- Crescendo expression pedal
- Swell expression pedal
- 6 general pistons
- 6 divisional pistons to Sw, Gt and Ped
- 16 capture memories
- Auto pedal and Gt/Ped enclosed pistons
- Keyboard inversion and Transposer -6/+5 semitones
- Fully adjustable Tremulants (speed and depth)

### Display and Software Features

- Backlight display with 8 button control to access all organ choice and set up features

### Dimensions and Finishes

- Dark and light oak simulated wood veneer
- 126cm (W) 119cm (H) 57cm (D) 115cm with pedal board
- Weight 110kg
- Sonus 40 Deluxe dark and light oak real wood veneer

### Audio System and Sound Management

- Independent volume adjustment of each division
- 9 internal speakers
- 6 x 60 watt internal amplifiers and 1 x 100 watt
- Internal 5 band graphic equaliser
- Fully adjustable reverberation with 8 levels
- Stereo headphone output socket
- External outputs to 4 channels
- Midi in-out-through

## How Does Physis Work?

Viscount Physis instruments have been made possible by the vastly increased power of current microprocessor technology. Unlike sampled-sound solutions commonly used in digital organs and still available in our Cadet Series instruments, the Physis model is interactive and constantly makes small and subtle changes to the sound depending on the number of stops drawn and the number of notes being played. These small changes also occur in a real pipe organ although it is a characteristic that most pipe organ builders try to reduce to a minimum. These small variations make the pipe organ unique, and the Physis model has been able to accurately reproduce this magic ingredient that is missing from sampled-sound instruments.



The end result is that a Physis organ sounds dramatically more exciting and life-like. This is especially noticeable when the instrument is played in a small environment and on its internal speakers.

Because Physis technology is software based, instruments can benefit from improvements as they are developed. These include the availability of new voice models and the addition of even more detail into existing voice models to allow greater flexibility of individual stop voicing.

## Management of the Instrument

A comprehensive range of instrument management is available to the player without the need for a computer link up. The features are controlled through a display that can be readily seen at the console.

A digital display screen showing the initial instrument settings. The screen is divided into two columns: TUNING and SET-UP. The TUNING column shows VOICES STYLES, EQUAL, ENSEMBLE 1, AIRPRESS --, and A: 440.00 HZ. The SET-UP column shows UTIL. & MIDI FILE MANAG., ENGLISH, P.COMB GT+P, KINV NO, and TRANSP --.

<b>TUNING</b>	<b>SET-UP</b>
<b>VOICES STYLES</b>	<b>UTIL. &amp; MIDI FILE MANAG.</b>
<b>EQUAL</b>	<b>ENGLISH</b>
<b>ENSEMBLE 1</b>	<b>P.COMB GT+P</b>
<b>AIRPRESS --</b>	<b>KINV NO</b>
<b>A: 440.00 HZ</b>	<b>TRANSP --</b>

*Initial instrument display*

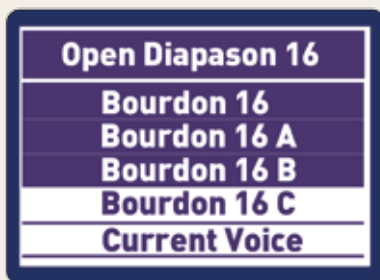
From the above picture you can see that the instrument is set to Equal temperament with A at 440 Hz and with the English voice setting. The Pedal and Great piston functions have been combined and the instrument has not been set to transpose. Other sections of the display allow you to enter and reset these parameters as well as other features on the instrument.



The organ has 4 factory-fixed organ styles that cannot be changed. These are English, Baroque, Symphonic and Romantic, which has a strong French flavour. Each of these four styles is copied into a fully accessible part of the memory where all the voices and features can then be changed by the musician, as required, to create a completely personal organ configuration. The 4 fixed styles ensure that it is always possible to return quickly to a perfectly balanced instrument as set up by the factory if any personal editing generates an unwelcome result.

## Alternative Stop Voices

The most versatile and perhaps commonly used function in our Regent organs is the ability to change stop voices for others inside the huge internal library. The picture below shows the display that controls the voice selection, and you can see a short part of the list of alternative voices that in this case are available to replace the Open Diapason 16. The voice to be changed is shown at the top of the image and the alternatives are listed below.



The list extends beyond the screen to upwards of 20 alternative voices for each stop. These can be viewed by scrolling through the list. The new voice is selected at the push of a single button. This feature, which is unique to Viscount Physis instruments, allows the musician to set up a totally custom-voiced instrument based on the library of over 1000 individual stops stored in the memory.



## Individual Stop Voicing

Having selected your preferred stop voice you are additionally able then to voice each rank for a number of parameters, just as would be possible in a real pipe organ. These include:

- Character (pipe width)
- Air Noise
- Harmonic Noise
- Attack
- Release Detune
- Relative Tuning of Strings
- Bass Attenuation Curve
- Treble Attenuation Curve
- Individual Rank Volume

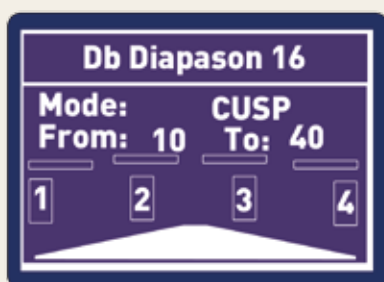
A screenshot of a digital organ console display showing individual stop voicing parameters. The display is a rectangular screen with a dark blue background and white text. At the top, it says "Opdiap 8IA". Below that, there are five rows of text: "Character -1", "Air Noise +1", "Harm Noise -3", "Attack 2", and "Release DET. 1".

Opdiap 8IA	
Character	-1
Air Noise	+1
Harm Noise	-3
Attack	2
Release DET.	1

All of these features can be locked with a security code to prevent accidental adjustment. On occasions when more detailed adjustments are required, including on a note by note basis, these can be made by connecting a computer via the USB port located under the keyboard shelf.

## Wind Chest Layout

In a real pipe organ the individual pipes sit on a box known as the wind chest. Each pipe creates a note and these notes sound from a different position in the instrument governed by the position of the pipe on the box. Pipes are nearly always set in fixed patterns. You will see arrays with tall pipes in the centre and small pipes to the sides and vice versa. This spacing of the pipes creates an extra dimension to the organ sound which all Regent and Envoy organs can reproduce.

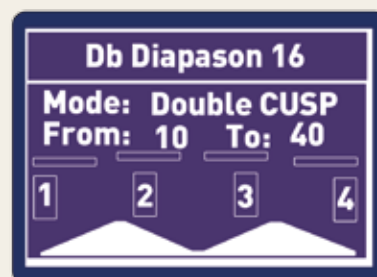


*Single cusp sound distribution*

The above picture shows the wind chest layout for a particular stop. In this case the sound for the Double Diapason 16 is being spread across 4 speakers with the lowest notes in the centre of the array and the highest notes towards the outside. This particular arrangement is known as a cusp and this is shown on the display.



The technology allows many alternative wind chest layouts to be created and the picture below shows a double cusp where the stop is distributed across 4 speakers.



*Double cusp sound distribution*

The above features are available for both internal and external speaker systems. When used exclusively on internal speakers we also employ an additional feature called Smart Sound distribution that ensures that combinations of notes that would normally 'fight' against each other, can never be routed to the same speaker. These unique features together with the remarkable sophistication of the Physis physical model, combine to create an instrument which faithfully reproduces the truly living sound of a traditional organ, that the ear never tires of listening to.

## Keyboard Options

Our keyboards are available in a range of shapes, sizes and weights. Since the feel of each keyboard and its action are important to the control of the instrument, we select only the finest components to ensure the touch is consistent, comfortable and rewarding to play.

The Viscount standard keyboards are all constructed with a simulated tracker touch and we always recommend a solid filled key that has its own weight and inertia. We also offer wood filled keyboards that would be found on a traditional pipe organ.

Viscount has also developed a tracker type response to key speed in their physical models. When this is enabled, the starting transient is influenced by the speed that the key is activated, just as you would hear on a pipe organ.



Viscount standard black and cream resin keyboards



Fatar standard wood-veneered, reverse-colour, baroque-style keyboards



Fatar style TP60LR white and black plastic keyboards



Fatar style TP60LW solid wood filled cream and ebony keyboards



## English Specification

### Pedal (9 stops)

Sub Bass	32
Open Wood	16
Open Metal	16
Bourdon	16
Principal	8
Bass Flute	8
Choral Bass	4
Mixture	IV
<b>Trombone</b>	<b>16</b>

Great to Pedal  
Swell to Pedal

### Great (12 stops)

Double Diapason	16
Open Diapason I	8
Open Diapason II	8
Claribel Flute	8
Stopped Diapason	8
Principal	4
Harmonic Flute	4
Twelfth	2-2/3
Fifteenth	2
Mixture	IV
<b>Trumpet</b>	<b>8</b>
<b>Clarinet</b>	<b>8</b>

Tremulant  
Swell to Great

### Swell (13 stops)

Geigen Diapason	8
Chimney Flute	8
Echo Gamba	8
Voix Celeste	8
Geigen Principal	4
Wald Flute	4
Flageolet	2
Sesquialtera	II
Mixture	IV
<b>Contra Fagotto</b>	<b>16</b>
<b>Corno</b>	<b>8</b>
<b>Oboe</b>	<b>8</b>
<b>Clarion</b>	<b>4</b>

Tremulant





## Romantic Specification

### Pedal (9 stops)

Principal Basse	32
Gambe	16
Flute	16
Soubasse	16
Flute Principal	8
Bass Flute	8
Flute	4
Mixtur	IV
<b>Bombarde</b>	<b>16</b>

Swell to Pedal  
Great to Pedal

### Great (12 stops)

Montre	16
Montre	8
Gambe	8
Flute Harmonique	8
Bourdon	8
Octave	4
Flute a Fuseau	4
Quinte	2-2/3
Doublette	2
Grande Fourniture	III
<b>Trompette</b>	<b>8</b>
<b>Cromorne</b>	<b>8</b>

Tremulant  
Swell to Great

### Swell (13 stops)

Geigen Diapason	8
Flute Traversiere	8
Viole da Gamba	8
Voix Celeste	8
Prestant	4
Flute a Cheminee	4
Octavin Harmonique	2
Sesquialtera	II
Plein Jeu	IV
<b>Bombarde</b>	<b>16</b>
<b>Bombarde</b>	<b>8</b>
<b>Basson Hautbois</b>	<b>8</b>
<b>Clairon Harmonique</b>	<b>4</b>

Tremulant



## Baroque Specification

### Pedal (9 stops)

Untersatz	32
Subbass	16
Prinzipalbass	16
Gedackt	16
Oktav	8
Gedackt	8
Choralbass	4
Mixtur	IV
<b>Bazuin</b>	<b>16</b>

### Great (12 stops)

Prinzipal	16
Prinzipal	8
Corno di Camo	8
Gedackt	8
Hohlflöte	8
Oktav	4
Spitzflöte	4
Quinte	2-2/3
Superoktave	2
Mixtur	V
<b>Trompete</b>	<b>8</b>
<b>Krummhorn</b>	<b>8</b>

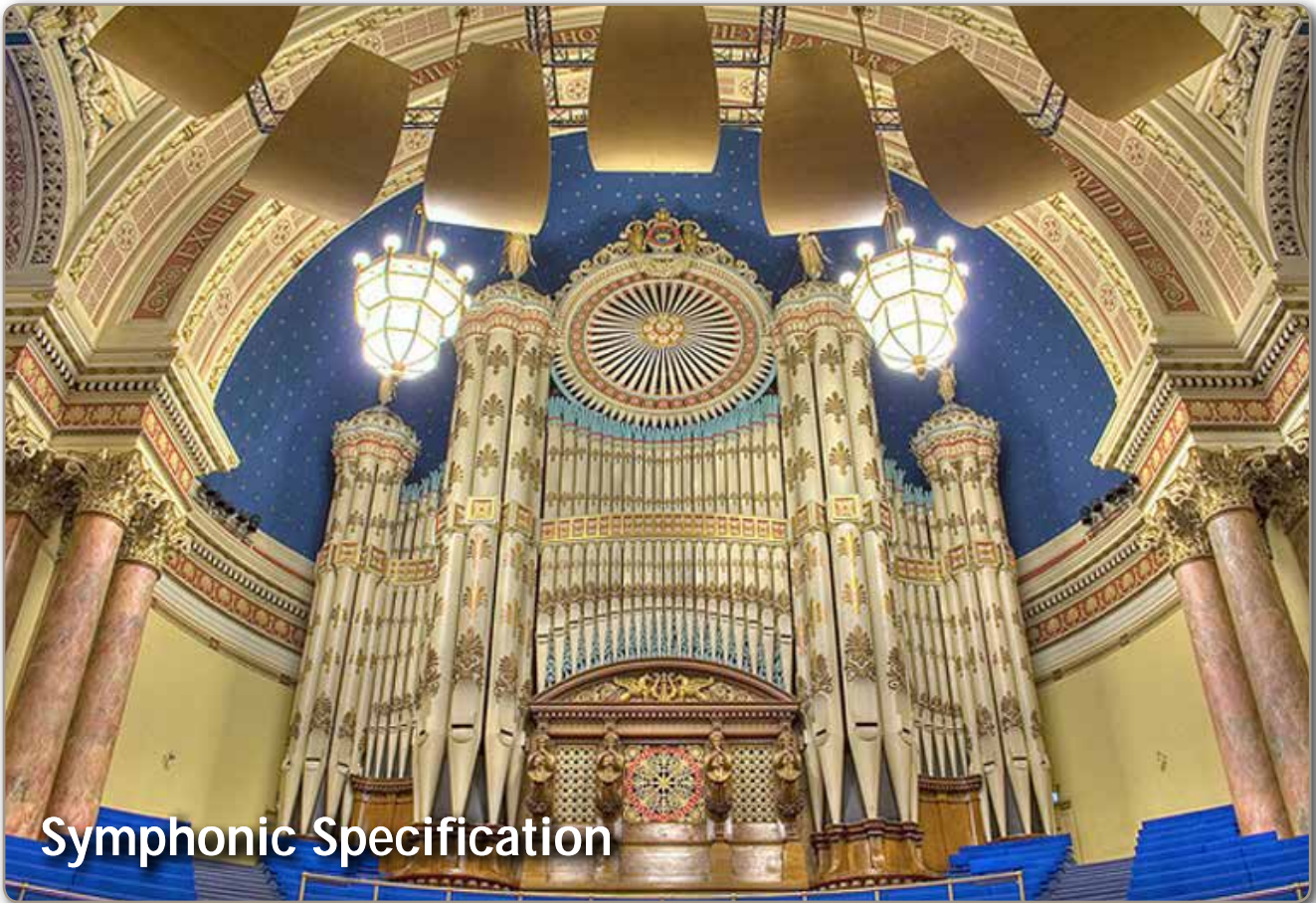
### Swell (13 stops)

Geigenprinzipal	8
Rohrgedakt	8
Viola da Gamba	8
Vox Coeleste	8
Oktav	4
Rohrflöte	4
Waldflöte	2
Scharf	III
Kornet	III
<b>Fagott</b>	<b>16</b>
<b>Trompete</b>	<b>8</b>
<b>Oboe</b>	<b>8</b>
<b>Trompete</b>	<b>4</b>

Swell to Pedal  
Great to Pedal

Tremulant  
Swell to Great

Tremulant



## Symphonic Specification

### Pedal (9 stops)

Contra Violone	32
Open Wood	16
Open Metal	16
Bourdon	16
Principal	8
Bass Flute	8
Choral Bass	4
Mixture	IV
<b>Trombone</b>	<b>16</b>

### Great (12 stops)

Double Diapason	16
1st Diapason	8
2nd Diapason	8
Flauto Traverso	8
Stopped Diapason	8
Prestant	4
Rohr Flute	4
Twelfth	2-2/3
Fifteenth	2
Fourniture	IV
<b>Trumpet</b>	<b>8</b>
<b>Cromorne</b>	<b>8</b>

### Swell (13 stops)

Horn Diapason	8
Chimney Flute	8
Gamba	8
Gamba Celeste	8
Prestant	4
Harmonic Flute	4
Sesquialtera	II
Block Flute	2
Plein Jeu	IV
<b>Bombarde</b>	<b>16</b>
<b>Trompette</b>	<b>8</b>
<b>Oboe</b>	<b>8</b>
<b>Clairon</b>	<b>4</b>

Great to Pedal  
Swell to Pedal

Tremulant  
Swell to Great

Tremulant