The Kenneth Tickell Organ of St. Mary-le-Bow Church, London

USER MANUAL

Hauptwerk ™ v.4 Sample Set

Version 1.00 - © Lavender Audio 2019

www.lavenderaudio.co.uk

Lavender

AUDIO ORGAN SAMPLES

St Mary-le-Bow HAUPTWERK™ version 4 Sample Set
## USER MANUAL

Thank you for purchasing this sample set. For those choosing to purchase the installation media as well, please note that installation files for the single-channel set are supplied on DVD and that the multi-channel files are supplied on a USB Memory Stick. It is recommended that you take a a little time to read this user manual available to familiarise yourself with the various features this sample set offers.

1.1 Installation of the single-channel sample set
The single-channel variant of the St Mary-le-Bow set requires a total of three Data packages and one Organ package to be installed. These are identified as follows …

SMB-DataPackage-996 … this is found on DVD-1
SMB-DataPackage-1000 … this is found on DVD-2
SMB-DataPackage-1004 … this is found on DVD-3
SMB-Single-OrganPackage … this is also found on DVD-3

If the evaluation set has already been downloaded and installed, then it won't be necessary to install SMB-DataPackage-996. For correct installation, it is essential that Hauptwerk's component installer is used. Start Hauptwerk and (unless installing from a download) insert DVD-1 into your DVD drive. In Hauptwerk, choose "File | Install organ or temperament..." and then navigate to your DVD drive or to the location you saved the downloaded installation files and find the first data installation package. Once Hauptwerk has analysed the package you may be presented with the sample set licence which you will need to accept. After a while, the following screen is presented.
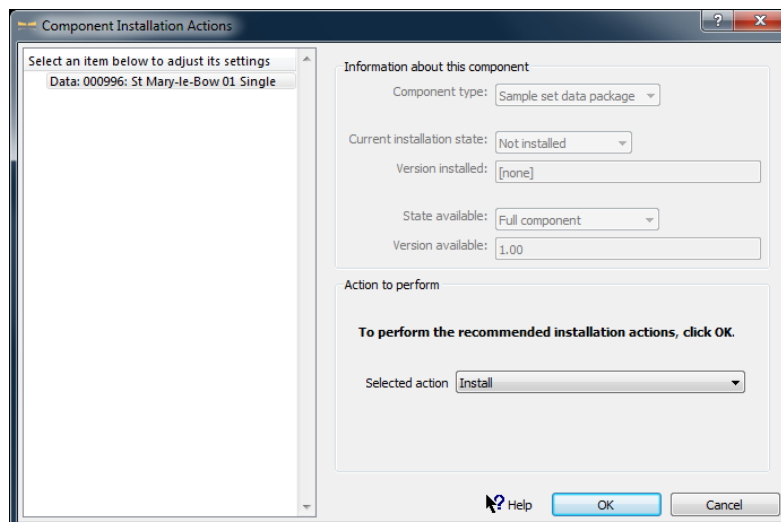
Ensure that the Selected action for the [Data] item is set to Install and then click OK. Installation should then proceed and the whole process should complete quite quickly.

Repeat the process as necessary with packages on DVD-2 and DVD-3, installing the remaining items as detailed above. Note that the OrganPackage includes both the standard and enhanced organ definitions - you can choose which to install via the "Selected action" drop-down on the screen as shown above.

1.2 Installation of the multi-channel sample set
There are a total of 9 Data packages and 1 Organ package (SMB-Multi-OrganPackage) that need to be installed in order for the multi-channel sample set to load successfully. These data packages are numbered 997, 998, 999, 1001, 1002, 1003, 1005, 1006 and 1007 and all may be found in the root directory of the USB Memory Stick. If the multi-channel evaluation set has been installed, you won't need to install data Packages 997, 1001 or 1005. Again, the Organ package includes both standard and enhanced organ definitions for the multi-channel set.

The multi-channel set installation is completely separate to the single-channel set and uses a different set of data packages. However, it is recognised that there may be times when having access to the single-channel set may be beneficial (eg smaller memory requirements, faster loading times), so the installation files for this set have also been included in a separate folder on the USB memory stick.

Assuming the installation process has been successful, the organ(s) is (are) now ready to load for the first time. Further information relating to this can be found in section 5 of the main user manual.

NB. Use of this sample set requires an update to your Hauptwerk dongle. You should have received this update by the time the DVDs or USB Memory Stick have arrived. If not, please contact Lavender Audio.

2. The organs at the Church of St Mary-le-Bow - a brief history

Although there is the likelihood that the church had a chamber organ before the reformation, the earliest known instrument there dates from 1802. This was a small organ of some 13 stops spread across two manuals. The builder was given as Hugh Russell, but there is some speculation that it may have been second-hand. This instrument lasted without alteration until 1867, when G.M. Holdich added a third manual, a pedalboard and another 11 stops, resulting in a far more flexible organ enjoying a specification which was quite typical for the period. However, this was now Victorian London, a period when size mattered and consequently a larger and grander instrument was soon desired. This came in the form of a brand new 33 stop organ from J.W. Walker at a cost of £1,108 and 5 shillings. The Walker organ demonstrated some of the tonal fashions current in 1880 – a Horn Diapason on the Great, a greater variety of 8 foot tone including an undulating rank on the Swell and mixtures comprising just unison and quint ranks. This instrument appears to have survived unaltered for the next 60 years.

The church was hit twice during the blitz of World War 2 and the Walker organ was removed before the second attack which caused extensive damage. In the immediate post-war period, repair and restoration was a slow and painstaking task and this Wren church wasn't in a position to welcome back its organ until 1964. By this time, the storage of the Walker organ was in the hands of Rushworth and Draper and this company set about the installation of an instrument which, it has to be said, was rather a pale imitation of its former self. Only 18 stops survived the cut and the various sources of pipe-work and the associated mechanism resulted in an organ which never lived up to the promise of its commanding position on the west gallery. Possibly the best part of the organ was the case, which was made during the post-war reparations by a firm of general builders as opposed to specialist organ builders. When the decision was made to start again with a new organ for the church of St Mary-le-Bow, retention of this fine case was accepted as being essential.

The scheme proposed by Kenneth Tickell was chosen from four proposals originating from Germany and the USA as well as from the UK. The case was chosen as the starting point for the tonal scheme and provided an important source of inspiration, reminiscent as it is of the work of the Alsace Silbermann family. Therefore, a French classical influence can be detected, both in the range and scale of the mutations and in the sound of the Great reeds. A French romantic direction is evident in the Swell organ, with the reeds having Cavaillé-Coll domed shallots as well as the provision of the strings (albeit these are not nearly as keen sounding as French strings of the 19th century). In fact, the instrument should really be considered as being predominantly English in style and sound, but speaking with something of a French accent. The only pipes remaining from the previous instrument are the bottom octaves of both the Pedal Violone and the Sub Bass – all other pipes were either made in house by Kenneth Tickell or supplied by Shires Organ Pipes of Leeds. The instrument was installed and voiced during the spring and summer of 2010 and the inaugural recital was given by Thomas Trotter on the 29th September. The church maintains a busy and thriving music tradition with regular organ recitals alongside a wide variety of other concerts. There is even The Academy of St Mary-le-Bow – an orchestra formed in 2016 which gives working professionals an opportunity to play orchestral music to a high standard in various venues around London.

3. Background Information and the St Mary-le-Bow Sample Set

The organ is situated on a gallery at the west end of the church which itself has a reverberation time of approximately 4 seconds. Thus the apocryphal "best stop" of the organ – its location and the acoustic into which it sounds – is most favourable and somewhat unusual for a British church. The gallery is relatively shallow in depth which has resulted in the Swell organ being placed above the combined Great and Pedal soundboard, with the larger bass pipes being located behind, to the sides and in the facade. The pipework is designed to give a bright but unforced sound, operating on relatively low wind pressures. The key and pedal action is mechanical, but the stop action is electric, thus allowing for a relatively advanced level of control, with divisional and general pistons, alongside a sequencer. In part, this flexibility makes up for the fact that the instrument has just two manuals; whilst a three manual organ would have just about fitted in the available space, it would inevitably have involved various compromises.
There is one unusual addition to the specification – MIDI on Swell. This was requested by the organist, Alan Wilson, who is a noted composer and it allows a range of electronically produced sounds to be added as desired. Incidentally, this facility has been incorporated into the standard sample set, meaning that the Swell manual MIDI output from Hauptwerk can be switched on and off from within the sample set.

A multi-microphone approach was taken, with a total of eight microphones employed in various locations. The Close perspective has been captured by microphones placed in the gallery itself, situated directly in front of the pipework to the left and right. The Ambient perspective is a blend of two stereo microphone sets, located on tall stands positioned approximately 5 metres back from the case. The Surround perspective is set another metre further away, but has microphones facing directly away from the organ to maximise the pick-up of the church acoustic. For the single-channel sample set, a careful blend of the Close and Ambient perspectives has been created, to give an optimal balance of direct and reverberant sound.

Sustain samples of some 6 - 8 seconds duration were taken and there are three release samples per note to take account of the difference between the sound of the release for short (staccato), medium (portato - typically 200 to 500 mS, depending on pitch) and long note durations. A few notes feature extra medium duration release samples, particularly for the slower evolving lower pitched pipes. Each sustain sample features an average of three individual loops.

There are individual tremulants for the Great and Swell; both are quite slow moving, with the Swell tremulant more pronounced than its counterpart on the Great. The St Mary-le-Bow sample set features both sampled and Hauptwerk modelled tremulants throughout and the user is able to switch on a rank by rank basis between the two tremulant choices. The Hauptwerk tremulant model allows speed, depth and various other parameters to be adjusted, however, the sampled tremulants sound significantly more realistic, even if they do require more computer resources when loading the set. Therefore, the recommendation is to use the sampled tremulants, although a combination of the two may be chosen if system memory (ie computer RAM) is at a premium.

4. Temperament and Tuning

The organ is tuned to a specially devised unequal temperament pitched at approximately A=437 Hz at the time of sampling. This temperament works best for earlier music and keys such as C, F, B flat, G and D major (along with the relative minor keys) all sound wonderfully smooth. Inevitably there are one or two "wolf" key signatures such as B major and F# major where, for more recent music, the original tuning temperament may be considered unsatisfactory. Switching to the inbuilt Hauptwerk equal temperament tuning is the obvious answer, although this then raises the issue as to how to approach the random tuning errors that need to be present to avoid the organ sounding sterile or artificial. Hauptwerk makes provision for random tuning errors to be incorporated (and these are indeed built into the organ definition file); however, this raises a problem for the multi-channel sample set where different perspectives (ie Close, Ambient and Surround) of the same pipe will have a different randomised tuning error. Therefore, playing a single note with all three perspectives audible will likely result in a slight tuning discrepancy which will sound unnatural.

To get around this, the individual tuning errors of each sample were analysed and then programmed into the organ definition file such that they could be controlled via a slider on the Settings screen. Crucially, this means that different perspective samples of the same pipe will always be locked together in tune, regardless of the position of the slider. Operation of this is covered in more detail later in the user manual, but the ability is now there for the authentic original temperament to be used or for one of the inbuilt Hauptwerk temperaments to be selected, each with the authentic slight tuning errors being consistently and accurately applied.

5. System requirements and loading the St Mary-le-Bow organ for the first time

Computer requirements vary widely depending on whether the single or multi-channel set is loaded and whether the standard or extended sample sets are being used. For the single channel set, a decent dual core or (ideally) quad core processor is recommended, alongside at least 8 GB of system memory (RAM). The multi-channel complete set really does require an absolute minimum of 16 GB of system RAM, alongside a fast (ie. later generation i5/i7) quad core processor.

The sample set was tested on a PC consisting of an Intel i7-4820K processor with 64 GB of system memory running Windows 8.1 64 bit and a 2012 i7 Mac Mini with 16 GB RAM running the latest MacOS (10.14 - Mojave). Both of these platforms have proven more than adequate to run this organ with all ranks loaded and all realism features enabled. For those with older or slower computers, Hauptwerk's polyphony management system should allow processing power limitations not to be especially noticeable, assuming of course the maximum polyphony has been properly set.

The following table gives very approximate figures for the amount of RAM (memory) the organ samples require with various different loading options set. None of these figures take into account the RAM needed by the operating system or Hauptwerk itself, so it would be prudent to add up to 2,000 MB to these figures to arrive at a good overall memory requirement. Where no figure is given, that particular loading option (although valid) hasn't been tested, generally because it wouldn't make sense to use it. All figures assume the use of Hauptwerk's lossless memory compression.

Single channel (x3 for multi-channel*)	24 bit	20 bit	16 bit	16 bit (no tremmed ranks loaded)	14 bit (no tremmed ranks loaded)
Extended set	14,390 MB	12,788 MB	7,351 MB	3,963 MB	●
Standard set	10,144 MB	8,954 MB	5,191 MB	2,817 MB	●
Standard set with single loops	●	7,938 MB	4,533 MB	2,462 MB	2,248 MB

* Multiplying by 3 will give an approximate figure. For instance, all three stereo channels of the Extended set, loaded at 24 bit, all loops and lossless compression has been measured as requiring 42,136 MB of RAM. It is of course possible to load just two channels (eg Ambient and Surround only), in which case simply multiply these figures by 2.

To achieve best results, the organ should be loaded at 24 bits resolution, no memory compression and with all realism features enabled. If your system doesn't have sufficient memory to allow this, then it is recommended to try the following in order until the set loads reliably (it is wise to allow for a small amount of unused memory to keep the operating system happy !)

- ♦ Use lossless memory compression (audio quality is unaffected although polyphony is reduced slightly)
- ♦ Load some or all samples at 20 bit resolution
- ♦ Load some or all samples at 16 bit resolution.
- ♦ Only load a single loop on some or all samples.
- ♦ Avoid loading some or all tremulant affected samples (use the Hauptwerk tremulant model instead)
- ♦ Load some or all samples at 14 bit resolution
- ♦ Only load single releases for some or all samples

It is possible to go a fair way down this list with little obvious loss of realism or quality – however the last two options should be avoided if at all possible. You can also reduce the load on your computer's processor by disabling the wind model, disabling real time harmonic shaping and disabling interpolation, all of which will affect the realism of the organ. The first time the organ is loaded the sample cache is built. This takes a considerable time – maybe 10 minutes or more for slower computers. However, subsequent loads are much quicker.

Once the organ is loaded, you can use Hauptwerk to connect the keyboards, stops, pistons and swell pedals of your MIDI setup as necessary. Before doing so, it may be worth reading the following section which contains useful information on the various playing aids incorporated in this organ.

6. St Mary-le-Bow Sample Set Screens

Console Screen

The console screen provides a representation of the St Mary-le-Bow organ based on original photographs of the instrument. The console screen size will change automatically to best fit your monitor display resolution (assuming the Hauptwerk "Zoom Virtual console to fit" option is enabled). Most of the contents of these screens will not require much in the way of explanation, however, a few brief points may be of use.

All controls on these screens can easily be assigned to virtual console hardware controls by right-clicking the control and selecting the auto-detect option. The order of the manuals, from top to bottom, is Swell, Great and – for the Extended set – the Choir. Each manual has a number of combination pistons which are located on the keyslip immediately below. The pedal pistons are depicted as the right hand set of toe pistons and the general pistons are found on the Swell keyslip.

The action of the Great and Pedal pistons may be combined by drawing the "Great & Pedal Combs. Coupled" coupler, whereby pressing a Great divisional piston will cause the corresponding Pedal combination to act as well (and vice versa when pressing a pedal toe piston). The row of toe pistons to the left of the swell pedal are, by default, a duplication of the swell divisionals; however, the "Generals on Swell Toe Pistons" transfer, when enabled, will change their use to being a duplication of the General pistons.

Stops + Pistons Screen

The Stops+Pistons screen simply removes the central manual/pedal display and replaces it with a larger representation of the instrument's pistons. This screen is probably the best one to use if controlling the St Mary-le-Bow organ from just a single monitor. Incidentally, it will be observed that for both the standard and extended set there are in fact 8 pistons provided as opposed to the 6 of the original instrument … pistons 7 and 8 are only visible on this screen so as to keep the console screen looking at least vaguely authentic!

LH and RH Jambs

These screens spread the stops over two pages and offer intelligent screen display, automatically changing their layout according to the aspect ratio of your monitor. Best results will be obtained from widescreen monitors which have been rotated through 90

degrees to provide a narrow portrait perspective - the display is then very similar to that of the real instrument. For those using screens in a landscape format (maybe to cater for other sample sets which employ a terraced arrangement for the drawstops) the stops are displayed in a more functional but nonetheless clear format.

Settings Screen

A variety of options may be controlled on this page, including some settings which are specific to the extended set.

The **Noise Settings** are reasonably self-explanatory and – for each category – the option to switch the noise on or off as well as to set overall level is provided. The level adjustment is approximately +/- 6dB which roughly equates to a doubling or halving of the volume level. Further fine level control is available via Hauptwerk Advanced edition's voicing tools. The key action noise on the original instrument is near-silent for all divisions, so no option to load or control key action noise samples has been provided.

As detailed in the **Temperament and Tuning** section, a specially constructed randomised tuning scheme has been created. Although the standardised Hauptwerk random tuning model has additionally been programmed, it is highly recommended that this be disabled, especially if using the multi-channel sample set. To do this, please go to "Organ settings | Organ preferences ..." and select the "Audio engine" pane in the window which appears. Now change the "Random pipe detuning adjustment %" to zero – note that this will not affect any other sample sets you may have installed. Now, for all temperaments (including the original organ temperament) the random detuning errors will be controlled by the Detuning Adjustment "Strength" slider, which may also be switched on or off by using the associated switch. With the slider about 1/3 of the way up, the detuning errors will be approximately the same as those found when the organ was sampled, increasing progressively to a quite out of tune sound with the slider at maximum. When the original organ temperament is selected, these tuning errors are already built in, so it's important to disable the detuning adjustment control unless an increase in tuning errors is desired. Two switches are provided to easily select between original and equal temperament; operation of these switches will also activate or de-activate the additional detuning control as appropriate.

The **Wind** section offers a graphical visualisation of the instantaneous wind chest wind pressure for each division, displaying the pressure variation as the organ is played. This may be of use if it is desired to vary the strength of the Hauptwerk wind model via the "Organ settings | Organ preferences ..." menu item (Hauptwerk Advanced Edition only).

Sample Tremulant Enable section allows the tremulant status for each rank to be selected. For any rank where it is desired that the sampled tremulant be used, the associated switch in this section should be switched on. Of course, it is then necessary to chose to load the appropriate tremmed rank when presented with the Rank Audio Memory Options screen the first time the St Mary-le-Bow set is loaded. If any of the Sampled Trem. Enable switches are switched off, the Hauptwerk treumlant model will be used for that rank when the appropriate Tremulant drawstop is engaged.

The **Stop/Coupler action delay** control inserts a short delay in the operation of all stops and couplers. This attempts to replicate the real life inertia of such systems, whereby the operation of a particular stop at the console doesn't result in the instantaneous sounding of its rank of pipes. The delay is a few hundred milliseconds. Below this control is one to alter the response of the swell pedal. On many virtual organ consoles, the swell pedal will generate MIDI controller messages linearly as the pedal is opened or closed. However, the effect of a swell box being opened tends not to be linear; rather, the greatest change of volume occurs just as the shutters are first opening with the rate of change decreasing as the box is opened further. The **Swell Pedal Alternate Response** facility attempts to model this effect. There are additional controls for the extended set: firstly, **Oct. couplers couple through** which allow the divisional octave, unison off and sub-octave couplers to couple through to other divisions when the appropriate inter-divisional coupler is drawn. There is also **Pedal cplrs activate Basscouplers** which offers a way of playing the pedal organ from the manuals. The basscoupler is intelligent in that only the lowest manual note sounds on the pedal, meaning that only one note is played at a time, giving a far more musical result than a simple "Pedal to Manual" coupler. Enabling this option allows the standard manual to pedal couplers also to operate the appropriate basscoupler. For example, with the "Pedal cplrs activate Basscouplers" switch on, drawing Swell to Pedal would also activate the Swell basscoupler.

The remainder of this screen is devoted to setting the relative levels of each division and - for those using the multi-channel variant of the St. Mary-le-Bow set - setting the overall balance between Close, Ambient and Surround microphone positions. The faders controlling the various divisions (Great, Swell etc) default to the mid position and again offer +/- 6dB volume change, whereas the master fader(s) default position is fully open; fully closing this control will reduce the volume to zero. The master fader also controls the level of the appropriate blower, tremulant and stop noise samples. Finally, there are six presets which may be used to store and recall the position of the divisional and overall volume faders.

Multi-channel considerations and suggestions.
Use of the multi-channel sample set will – for most applications – be quite straightforward. Typically, both the Close and Ambient samples will be sent to loudspeakers situated in front of the player, with the Surround samples being routed to speakers behind. Of course, other options for this are always possible and will often be dictated by individual circumstances. The divisional and master faders on the Settings screen will likely be of benefit when it comes to balancing the sound.

7. In use – some suggestions and considerations

In his write-up of the organ for the Institute of British Organ Building, Kenneth Tickell notes that "a coherent specification which can do justice to the core repertoire of the organ should naturally have the capability for choir and congregational accompaniment (though the reverse is not necessarily true)".

As has already been discussed, whilst the organ stylistically leans slightly towards the French classical period it is certainly the case that early English and German music also sound very well on this instrument. The light wind pressures and unforced voicing results in stops which blend very well with one another and there are a great variety of solo combinations, some possibly rather unexpected. For example, one would expect to simply use the three rank Great Cornet with the Stopped Diapason and Spitz Flute to provide the typically wide scaled five rank cornet sound. However, adding in either the Fifteenth or even the Furniture to this combination gives a notably different solo register which will nonetheless have its uses. Equally, constructing the Swell cornet with the slightly flutey 4' Principal as opposed to the Harmonic Flute will yield a different but equally musical effect. Music of the romantic period is catered for by the provision of a decent full swell, along with a useful Swell Oboe and undulating strings. In fact, the variety of 8 foot stops does mean that the organ can be considered a versatile all-rounder with just the more complex romantic repertoire (not to mention Tuba tunes!) possibly being a step too far.

As an organ for accompanying choir and congregation, there is no doubt that the versatility of tone available allows this role to be fulfilled admirably. Although in the full organ sound, reeds and mixtures come to the fore, there is a decent amount of weight provided by the full length Pedal Violone. More delicate choral textures can be nicely underpinned by the softer sounds such as the flutes, the Swell strings and even the Great Gamba which doubles as a very useful small Open Diapason.

8. The Extended Set

An extended sample set has been created which – whilst retaining the quality and ethos of the existing St Mary-le-Bow organ – seeks to significantly extend the flexibility and scope of the instrument. All of the additions use samples taken from the original instrument and it is hoped that nothing out of place has been created (no Tubas or 32' reeds here!). Rather, an attempt has been made to create the sort of instrument that might have been provided by Kenneth Tickell had an organ of some 40 stops spread over three manuals been commissioned. Thus, the scope of the Swell and Pedal has been conservatively widened and a new Choir organ has been provided, designed very much to complement the existing scheme. These enhancements are as follows …

Pedal Organ
A new $10\frac{2}{3}$ Quint has been provided and the Swell Bassoon made available here to provide a softer alternative to the Trombone.

Swell Organ
A Diapason 8' and Clarion 4' have been added.

Choir Organ
This new seven stop division (plus an appearance of the Great Trumpet) is designed as both a Choir and quasi-Solo division. The Cromorne has been moved here from the Great and stops such as that and the two rank Sesquialtera extend the solo possibilities even further. In addition, the quieter unison and 4 foot ranks give additional accompaniment options in conjunction with other divisions of the organ.

Additional couplers
Whilst sub and super-octave couplers may be provided by Hauptwerk's master couplers, the same is not true of the Unison Off. Therefore, these three intra-manual couplers have been provided for both Swell and Choir and have also been integrated into the instrument's divisional and general combination pistons. As detailed previously, there is a switch on the Settings screen which optionally allows these couplers to couple through to other divisions (eg with Swell Octave and Swell to Great drawn, Swell Octave to Great would also sound).

Basscouplers

As described previously, these offer a useful way of playing the pedals from any of the three manual divisions.

Extended manual and pedal compass

For each manual the top end of the playing range has been extended to high C, offering a 61 note compass. Similarly, two extra notes at the top have been provided for those with 32 note pedalboards.

Miscellaneous changes

Two other minor changes have been incorporated, as follows:
   i)   The Swell Viola has been brightened to make a keener and more stringy sounding rank.
   ii) The effect of the swell box has been increased slightly to provide greater attenuation when the box is fully closed.

There is some unification and borrowing on both the standard and extended sets. This is as follows:

PEDAL: The Trumpet is borrowed from the Great and – on the extended set – the Bassoon is borrowed from the Swell.
GREAT: The lowest nine notes of the Gamba use the Stopped Diapason pipes.
SWELL: The Voix Celeste starts at tenor C (MIDI note 48).
CHOIR: (Extended set) The lowest seven notes of the Echo Gamba are borrowed from the Gedackt and the Trumpet is borrowed from the Great.

Therefore, for certain stops, some of the notes will be greyed out in Hauptwerk's voicing tools.

ST. MARY-LE-BOW STANDARD SAMPLE SET ~ SPECIFICATION

Great - 58 notes		Swell - 58 notes (enclosed)	
Bourdon	16	Voix Celeste	8
Open Diapason	8	Viola	8
Gamba	8	Chimney Flute	8
Stopped Diapason	8	Principal	4
Principal	4	Traverse Flute	4
Spitz Flute	4	Nazard	2 2/3
Fifteenth	2	Open Flute	2
Cornet (12.15.17)	III	Tierce	1 3/5
Furniture (15.19.22.26)	IV	Larigot	1 1/3
Cromorne	8	Mixture (15.19.22)	III-IV
Trumpet	8	Bassoon	16
Tremulant		Hautboy	8
		Trumpet	8
		Tremulant	

Swell to Great
Bow Bells (Cimbelstern)   *MIDI on Swell*

Pedal - 30 notes

Violone	16
Sub Bass	16
Principal	8
Open Flute	8
Octave	4
Trombone	16
Trumpet (Great)	8

Great to Pedal
Swell to Pedal

Great & Pedal combinations coupled
Generals on Swell Toe Pistons

Reversible thumb pistons
Great to Pedal, Swell to Pedal, Swell to Great   *Eight general pistons and general cancel*
Reversible foot pistons   *Eight foot pistons to the Pedal Organ*
Great to Pedal, Swell to Pedal   *Eight pistons each to the Great and Swell Organs*

ST. MARY-LE-BOW EXTENDED SAMPLE SET ~ SPECIFICATION

Great - 61 notes

Bourdon	16
Open Diapason	8
Gamba	8
Stopped Diapason	8
Principal	4
Spitz Flute	4
Fifteenth	2
Cornet (12.15.17)	III
Furniture (15.19.22.26)	IV
Trumpet	8
Tremulant	

Swell to Great
Choir to Great
Bow Bells (Cimbelstern)

Swell - 61 notes (enclosed)

Diapason	8
Viola	8
Voix Celeste	8
Chimney Flute	8
Principal	4
Traverse Flute	4
Nazard	2 2/3
Open Flute	2
Tierce	1 3/5
Larigot	1 1/3
Mixture (15.19.22)	III-IV
Bassoon	16
Hautboy	8
Trumpet	8
Clarion	4
Tremulant	

Sub-octave
Unison Off
Octave

Choir - 61 notes

Gedackt	8
Echo Gamba	8
Principal	4
Stopped Flute	4
Octave	2
Sesquialtera (12.17)	II
Cromorne	8
Trumpet (Great)	8
Tremulant	

Sub-octave
Unison Off
Octave
Swell to Choir

Pedal - 32 notes

Violone	16
Sub Bass	16
Quint	10 2/3
Principal	8
Open Flute	8
Octave	4
Trombone	16
Bassoon (Swell)	16
Trumpet (Great)	8

Great to Pedal
Swell to Pedal
Choir to Pedal

Great & Pedal combinations coupled
Generals on Swell Toe Pistons

Reversible thumb pistons
Great to Pedal, Swell to Pedal, Swell to Great
Reversible foot pistons
Great to Pedal, Swell to Pedal

Eight general pistons and general cancel
Eight foot pistons to the Pedal Organ
Eight pistons each to the Great, Swell and Choir Organs

Appendix – Licence Agreement

This agreement is applicable to the St Mary-le-Bow sample set.

1. The sample set(s) may be used indefinitely by the licensee on any computing equipment owned by them in any form of private or public installation.

2. Copyright and intellectual property rights of the original samples, images and organ definition files are retained by Lavender Audio.

3. Copyright in any musical performance using these samples is vested solely in the licensee. A musical performance is defined as one in which the samples are combined in such a fashion that no individual samples could be re-used by a third party.

4. These samples are licensed only for use in connection with software issued by Milan Digital Audio or their successors. Note that the individual samples (but not the organ definition files) are encrypted to ensure this. An update to the licensee's dongle is required for these samples to load into Hauptwerk.

5. Organ definition files and custom organ definition files may be freely edited for personal or public use by the licensee.

6. These samples may be freely combined with samples from other sample set producers to form composite organs defined by standard or custom organ definitions only where this is specifically permitted by the third party sample set licence(s).

7. Performances and recordings with these sample sets are fully licensed, with no further payments or permissions required. For recordings with a planned commercial release, an acknowledgement to the source of the samples (ie the Kenneth Tickell organ of St Mary-le-Bow, London, UK) should be made where possible (eg on a CD inlay card).

8. This licence is conditionally transferable. Samples and organ definition files may only be resold or given to any third party with prior permission from Lavender Audio. Any such licence transfer will be co-ordinated by Milan Digital Audio (or their successors) and will depend upon the licence being successfully removed from the original licensee's Hauptwerk dongle.

9. These sample sets are provided "as is", with no implied suitability for any particular intended use. No liability can be accepted for any injury or damage, howsoever caused, arising from the use of these sample sets.

© Lavender Audio, February 2019