User's Manual

JOHANNUS

Sweelinck 10, 20 and 30

Document information

Document Code	SWLKV202US.wpd
Document Title	User's Manual JOHANNUS Sweelinck 10, 20 and 30
Issue date	July 1998
Serial number	

Introduction

Congratulations on your decision to purchase a new JOHANNUS organ. You are now the owner of an instrument with a well-chosen and balanced selection of stops. This organ gives you the opportunity to perform the full repertoire of classical and liturgical organ music.
.
This User's Manual contains a lot of useful information. First we present an overview of the organ, and then we present tips on use. Finally, we investigate all of your organ's technical possibilities, including how to choose another temperament, using free combinations, using the general crescendo, MIDI applications and so on.

In the appendices you will find options, technical information, MIDI implementation charts and registration examples.

Table of Contents

An overview

The organ cabinetry

The organ cabinet consists of the console shell, music-rack, pedalboard and bench. Our standard organ cabinet is designed in dark or light oak with solid wood panels. Your organ may be custom-ordered in another finish, color or wood.

The console

Typically, the console consists of two or three manuals and several accessories.
The keyboards have a church organ touch and are normally designed with synthetic key surfaces. You may custom-order wooden keys. For more information, read “The console in detail”.

The music rack

The music rack is typically not yet installed at the time of delivery. You can insert the music rack into the groove provided on the top panel of the organ cabinet.

The roll-top

The wooden roll-top cover is provided with a lock and key. The lock is placed behind the music-rack on the top of the organ.

Open the organ in the following way:

1. Put the key in the lock.

2. Rotate the key a quarter turn; the lock moves upwards.

3. Push the roll-top upwards.

Lock the organ in the following way:

1. Make certain that you have the key handy (see warning).

2. Pull at the roll-top toward you.

3. Push in the cover-lock.

Warning
You **can** lock the organ without using the key. However, the key is necessary to open the organ. Therefore, always take care that the key is not left within the console before depressing the lock.

The pedalboard

Typically, organs have a 30-note BDO pedalboard. Other pedalboards are optional. E.g., In the US Rembrandt organs are equipped with 32-note AGO pedalboards.

The pedalboard is removable. At the front of each pedal key is a magnet. This magnet normally sits in close proximity to a reed switch, which is invisibly mounted behind the black painted front panel at the bottom of the console. When you depress a pedal key, the reed switch is activated by the magnet at the end of the key.

Your new organ has lighting above the pedalboard which is switched on and off automatically with the organ.
The following points are important for installing the pedalboard:

1. Make sure that the surface under the console in combination with the pedalboard is flat.

2. For the best alignment of the pedalboard, it may be necessary to adjust the console height slightly while positioning the pedalboard.

3. Shift the pedalboard against the black painted front panel as close as possible.

The organ bench

Your organ is provided with a bench that contains a music shelf. If you wish, you can order an adjustable-height bench.

Set up

Connecting the organ

Pay close attention to the following points when you connect the organ:

1. Check the main voltage before you connect the organ. This voltage must be the voltage as printed on the serial numberplate located on the left side under the keyboards.

2. Connect the organ to a grounded outlet. When this is not possible there is a chance some functions will not work properly.

Switching on he organ

Switch on the organ by depressing the main power switch located on the right side of the keyboards. The red pilot lamp will light up as soon as the organ is switched on. It takes a few seconds before all controls are working. The computer circuit needs this time to initialize.

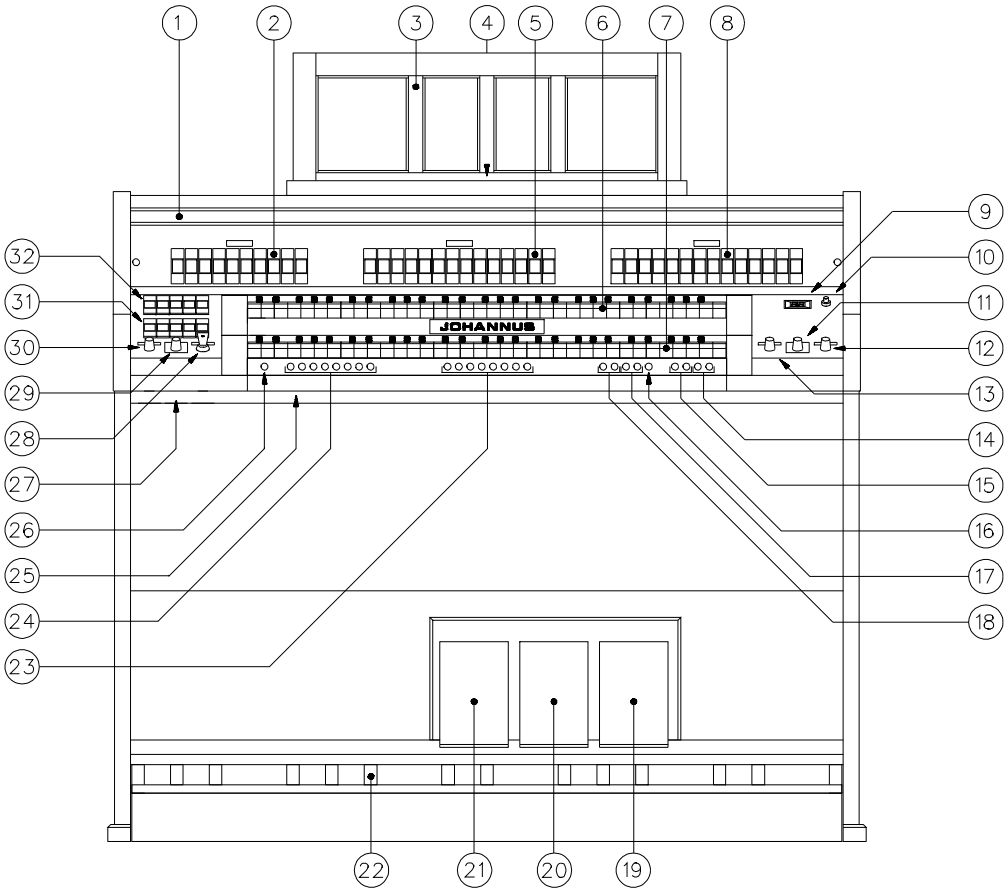
The display of the organ (located on the right side next to the keyboards) will show the figure *I*.
Also the '0' thumb piston will light up.

The console in detail

Overview of the controls per type

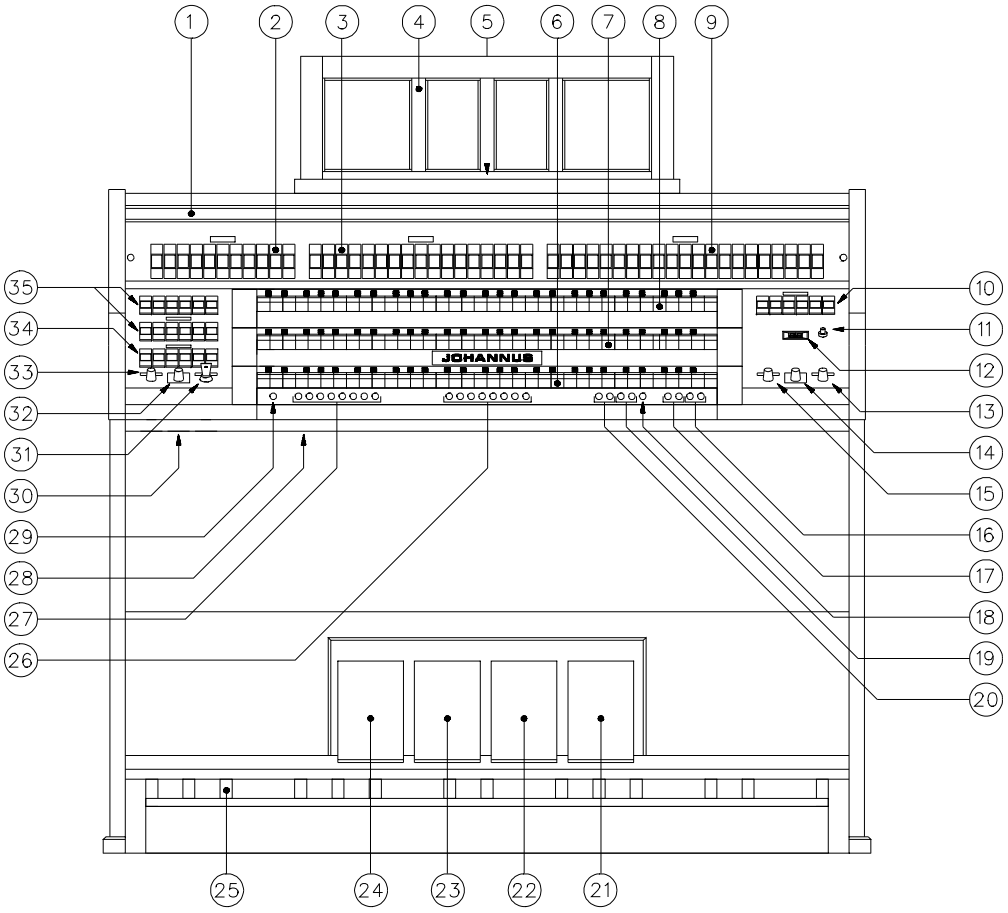
The number and the location of the controls are different by type. The following pages show controls of the different Sweelinck models.

Sweelinck 10 and 20
The Sweelinck 20 has more stops than the Sweelinck 10. De location of the controls is the same.



1. Roll top cover
2. PEDAL stops
3. Music rack
4. Roll-top cover lock
5. GREAT stops
6. Swell keyboard
7. Great keyboard
8. SWELL stops
9. Display (capt. syst. and gen. cresc.)
10. Power switch
11. TRANSPOSER control
12. PITCH control
13. VOLUME control
14. Thumb pistons
    - GC (General Crescendo)
    - PG (Program. Gen. cresc.)
15. Thumb pistons
    - – (capt. syst. and gen. cresc.)
    - + (capt. syst. and gen. cresc.)
16. Thumb piston
    - FA (Fix Accessories)
17. Thumb pistons
    - MB (Manual Bass)
    - CF (Cantus Firmus)
18. Thumb pistons
    - WM (Werckmeister III)
    - MT (Meantone)
19. Generaal crescendo pedal
20. Expression pedal SWELL
21. Expression pedal GREAT+PEDAL
22. Pedal
23. Thumb pistons
    - Presets
24. Thumb pistons
    - 1 thru 8
25. Serial number plate
26. Thumb piston
    - SET (capt. syst. and gen. cresc.)
27. External connections
28. Key switch MEMORY LOCK
29. ACOUSTICS control (Program)
30. ACOUSTICS control (Volume)
31. Accessories (midi's/chorus/int. 2)
32. Accessories (couplers/tremulants)

Sweelinck 30



1. Roll-top cover
2. CHOIR stops/trem.
3. GREAT stops/trem.
4. Music rack
5. Roll-top cover lock
6. Choir keyboard
7. Great keyboard
8. Swell keyboard
9. SWELL stops
10. Accessories (midi's/chorus/int. 2)
11. Power switch
12. Display (capt. syst. and gen. cresc.)
13. PITCH control
14. TRANSPOSER control
15. VOLUME control
16. Thumb pistons
    - GC (General Crescendo)
    - PG (Program. Gen. cresc.)
17. Thumb pistons
    - – (capt. syst. and gen. cresc.)
    - + (capt. syst. and gen. cresc.)
18. Thumb piston
    - FA (Fix Accessories)
19. Thumb pistons
    - MB (Manual Bass)
    - CF (Cantus Firmus)
20. Thumb pistons
    - WM (Werckmeister III)
    - MT (Meantone)
21. General crescendo pedal
22. Expression pedal SWELL
23. Expression GREAT+PEDAL
24. Expression pedal CHOIR
25. Pedal
26. Thumb pistons
    - Presets
28. Thumb pistons
    - 1 thru 8
29. Thumb piston
    - SET (capt. syst. and gen. cresc.)
30. External connections
31. Key switch MEMORY LOCK
32. ACOUSTICS control (program)
33. ACOUSTICS control (volume)
34. Accessories (couplers)
35. PEDAL stops

Accessories

The following accessories are standard:

- Couplers
- Tremulants
- Chorus
- Intonation 2
- MIDI-stops

Couplers
All couplers are full unison couplers. This means all depressed keys are coupled.

Choir - Great (only for Sweelinck 30)
This coupler couples the Choir to the Great. When playing keys on the Great, the corresponding keys on the Choir will be played as well. This way you can add all stops of the Choir to the Great.

Swell - Great
This coupler couples the Swell to the Great. When playing keys on the Great, thecorresponding keys on the Swell will be played as well. This way you can add all stops of the Swell to the Great.

Swell - Choir (Only for Sweelinck 30)
This coupler couples the Swell to the Choir. When playing keys on the Choir, thecorresponding keys on the Swell will be played as well. This way you can add all stops of the Swell to the Choir.

Choir - Pedal (Only for Sweelinck 30)
This coupler couples the Choir to the Pedal. When playing keys on the Pedal, the corresponding keys on the Choir will be played as well. This way you can add all stops of the Choir to the Pedal.

Great - Pedal
This coupler couples the Great to the Pedal. When playing keys on the Pedal, the corresponding keys on the Great will be played as well. This way you can add all stops of the Great to the Pedal.

Swell - Pedal
This coupler couples the Swell to the Pedal. When playing keys on the Pedal, the corresponding keys on the Swell will be played as well. This way you can add all stops of the Swell to the Pedal.

Tremulants
The tremulants are meant to vibrate the sound of the organ especially with slow or soft music. Every division has its own independent tremulant.

When you use couplers and/or the CF piston the tremulants will be coupled to the corresponding keyboards.

Chorus
To avoid the organ sounding too sterile, the instrument is designed with various stops tuned differently in relation to each other. These small differences give the organ a broader, more lively character. Switching on this stop will intensify the difference in tuning between the various voices.

Intonation 2
Intonation determines the sound of the organ. In pipe organ-building the voicing is a very important part of the building process. Every stop will be adjusted note by note to the room where the organ is installed.

Your organ has two intonations, a romantic and a baroque intonation. In general a romantic organ is wider and sounds symphonic, while a baroque organ is brighter and more tightly tuned. Also see under “Choice of temperament”.

MIDI-stops
The MIDI-stops are a special group of accessories. See under “MIDI applications”.

Display

A so-called 7-segment display is located on the right side next to the keyboards. This display has several functions:

When the GC thumb piston is not switched on the display will show the chosen memory group of the capture system. Also see under “Using free combinations (capture system)”.

When the GC thumb pistons is switched on the display will show to which level the general crescendo pedal is depressed. Also see under “Using the General Crescendo”.

When the GC and PG thumb pistons are switched on the display will show which level of the general crescendo can be programmed. Also see under “Using the General Crescendo”.

Stops

The stops are on so-called tab switches. These are switches that will come back in their middle position after being switched on or off. Therefore, in every tab a light will light up when that stop is switched on. These stop lights also work with the use of presets and free combinations.

On a pipe organ you switch a rank of pipes on or off with the stops. By varying the combinations of stops the organist can create dynamic and colorful changes. This means that some knowledge of the traditional pipe organ is necessary to make good stop combinations. You should know a little bit about the different sounds of the different organ stops. That is why we give a brief explanation about these different kinds of organ stops.

In the appendices you will find extensive examples of registrations.

Organ pipes can be divided in two main groups:
- Flues
- Reeds

Flue pipes
The principle of the tone generation with flue pipes is the same than with a record. Flue pipes occur in two versions: open or (half) stopped. An example of a half-stopped pipe is the Rohrflute. On the canister-stopper a small open tube has been soldered. An example of an open flue pipe is the Principal. Normally the pipes of this stop are located in the facade of a pipe organ. Flues can be subdivided in the following categories:

Principals
Principals are the Principal, Octave, Twelfth, Superoctave, Mixture, Scharff, Cymbel, Rauschpfeife and Sesquialter. The last 5 stops sound with more than one pipe of different pitch together per note. So called multi rank stops.

Strings
These are the narrow scaled, open flue pipes like: Viola di Gamba, Vox Celeste and Salicional.

Flutes
Flute stops, open as well as stopped, are made of metal or wood. For example: Stopped Flute, Gedackt, Bourdon, Subbass, Nazard, Waldflute, Gemshorn and Rohrflute.

Reeds
In a reed pipe the wind is blown into the pipe bringing a reed into resonance. This resonance is ‘amplified’ and ‘colored’ by a tube (resonator). Reeds with a conical resonator are: Bombarde, Trumpet, Schalmei, etc. The group of cylindrical resonators are: Fagotto, Cromorne, Krummhorn, etc. The following reeds have a short resonator: Regal, Vox Humana, Ranket, etc.

Overview of stops per type

You will find an overview of stops per organ in the appendix under examples of registrations. Next to the stopnames you normally find the length, e.g. 8'. This means that the body of this pipe for the lowest C key is 8' (appr. 240 cm). A stop with 16' sounds one octave lower.

Volume adjustment

The volume of is adjustable in the following ways:

VOLUME control
With the VOLUME control you adjust the General Volume, independent of the position of the expression pedals. Therefore, this control has influence on each keyboard.

Expression pedal Choir (for Sweelinck 30 only)
With the left expression pedal you adjust the Choir volume.

Expression pedal Great + Pedal
With the left expression pedal you adjust the Great and Pedal volume at the same time.

Expression pedal Swell
With the right expression pedal you adjust the volume of the Swell.

The expression pedals work independently of the position of the VOLUME control.

Thumb pistons

The thumb pistons are switches that after being switched on or off remain in the same position. Therefore, every thumb piston has a light built in that lights as soon as it is switched on.

WM = Werckmeister
By pushing this piston you choose for the Werckmeister temperament. See under chapter “Choice of temperament”. As soon as you switch on this temperament the Meantone temperament will be switched off automatically in case it was on.
By pushing the WM thumb piston again its function will be switched off again.

MT = Meantone
By pushing this piston you choose for the Meantone temperament. See under chapter “Choice of temperament”. As soon as you switch on this temperament the Meantone temperament will be switched off automatically in case it was on.
By pushing the MT thumb piston again its function will be switched off again.

MB = Manual Bass
By pushing this piston the pedal will be coupled to the Great keyboard automatically. When you play a chord on the Great, the lowest key of this chord will be coupled from the Pedal to the Great. By pushing the MB thumb piston again its function will be switched off again.

CF = Cantus Firmus
By pushing this piston the Swell will be coupled to the Great keyboard. When you play a chord on the Great, the highest key of this chord will be coupled from the Swell to the Great. This way the effect of an automatic solo can be achieved. In case the Swell to Great coupler is already in use the CF function has no effect. By pushing the CF thumb piston again its function will be switched off again.

FA = Fix Accessories (Freeze Accessories)
When you use the couplers and tremulants in the fixed combinations (presets) or in the free combinations (capture system) or by using the thumb piston “0" (cancel) these will change too. You can avoid this by using the FA thumb piston. As long as this piston is switched on, you can only switch the couplers and tremulants on or off by hand. By pushing the FA thumb piston again its function will be switched off again.

SET
A thumb piston to program free combinations and stop combinations of the general crescendo. See under chapter “Using free combinations” and “Using the General Crescendo”.

1 thru 8
Thumb pistons to store a personal registration into the capture memory by giving these registrations a number (1 thru 8) within a memory level (bank). These thumb pistons you need again to call these stored registrations from the capture memory. See under chapter “Using free combinations”.

- and +
Thumb pistons with which you can choose a general crescendo level or a memory level of the capture system. See under chapter “Using free combinations” and “Using the General Crescendo”.
When you keep on pushing the - or the + piston these will automatically count down or up.

GC = General Crescendo
Piston to switch the General Crescendo function on or off. See under “Using the General Crescendo”.

PG = Program General Crescendo
Piston that enables you to change the stop combinations of the General Crescendo. See under “Using the General Crescendo”.

PP thru T
The fixed combinations (presets) are registrations, preset according to musical standards, starting by PP (Pianissimo: very soft) thru T (Tutti: full organ).

The Tutti piston has two functions. When you play a stop combination chosen by yourself or from the presets (PP thru FF) the T piston calls the full organ: the normal function of this piston. However, when you push the T once more you will recall the previous registration.

The presets have been fixed in the factory and cannot be changed by the user.

When you push one of the preset pistons the factory programmed stops will light up accordingly. It is always possible to switch stops on or off by hand.

0
The 0 piston is located to the right of the “T" piston.

The piston has two functions. It may happen that you switch on a preset or add a stop by hand by mistake. By pushing the “0" once quicky you will undo the latest change.

Example
You play the registration of Flute 8', Flute 4', and Flute 2'. After some time you add the Principal 8' and Principal 4'. There is always a very short time between switching on the Principal 8' and the Principal 4'. By pushing the 0 piston briefly only the Principal 4' will be switched off (undo the last change). Not the Principal 8' as well as the Principal 4' will be switched off (according to the organist this would be his last change). Actually the organ sees the Flute 8', flute 4', Flute 2' and the Principal 8' as the previous registration and the organist the combination Flute 8', Flute 4', and Flute 2' as the last one.

When pushing the “0" piston longer all stops will be switched off at once. Exceptions are: The couplers and the tremulants when the FA piston is switched on and the stops Chorus, Intonation 2 and the MIDI.

RO = Reeds Off
Located to the far right of the presets is the RO (Reeds Off) thumb piston. By pushing this piston all reeds will be switched off at once. As long as the RO piston is switched on no reeds can be switched on. By pushing the RO thumb piston again its function will be switched off again.

Controls

PITCH
With this control you can adjust the temperament of the organ in quarter steps.
This control has a central position indication, which means that, when turning, you can feel this control click in this central position. This central position is meant to tune the organ (with the TRANSPOSER control on position 0) on A=440 Hz

TRANSPOSER
With this control it is possible to transpone the organ. This means that the organ can be transposed 1, 2 or 3 set half steps lower or higher. When the position of the control is 0, the standard pitch for the organ is A=440 Hz, on the condition that the PITCH control is in central position.

When using the TRANSPOSER in combination with the PITCH control it is possible to adjust the organ 3 half steps higher or lower.

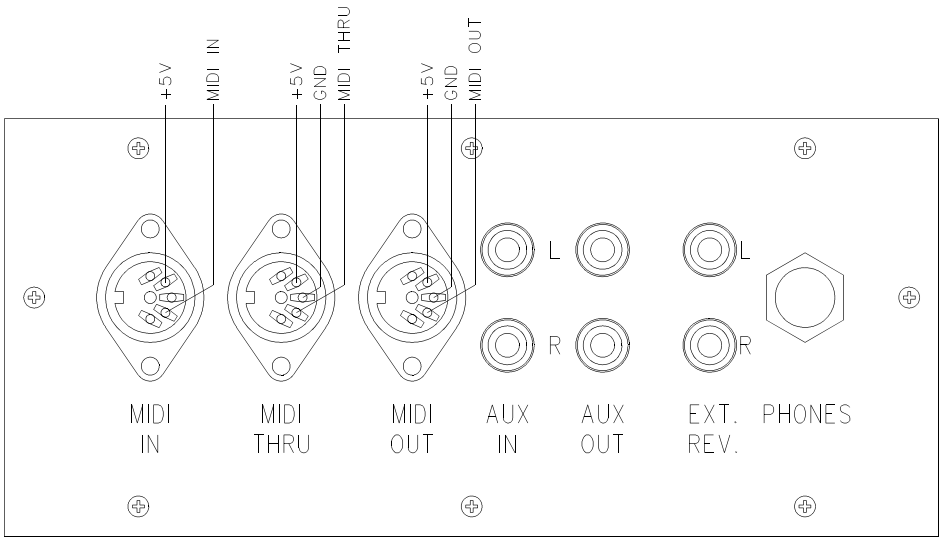
ACOUSTICS (volume)
The build-in digital acoustics provide a spacial reverberation of the organ sound. With this control the volume of the reverberation can be adjusted. To completely switch off the reverberations you turn the control to the left.

ACOUSTICS (program)
With the position switch you may choose from 3 different acoustical environments.

Memory lock

MEMORY LOCK
To save your registrations, modified general crescendo levels, or to modify stored registrations, this switch must be switched on. As soon as the key switch of the memory is switched on, the SET button will light up. See chapter “Using free combinations” and “Using the General Crescendo”.

External connections



The following external conceptions are located left under the console:

MIDI IN
To receive MIDI-codes from the other devices.

MIDI THRU
For relaying incoming MIDI codes from other devices.

MIDI OUT
To send MIDI-codes to other devices.

AUX IN
This input can be used to amplify the sound of an external device through the speakers of the organ. E.g., it is possible to play the sound of an expander module that is controlled by the organ's MIDI out through the organ's speakers.

The volume of the device that is connected to the AUX IN cannot be adjusted by the expression pedals or the VOLUME control (except external devices that are controlled by the organ's MIDI OUT).

AUX OUT
This output is meant to connect an external stereo amplifier.

EXT. REV.
The connection EXTERN REVERB is specifically for the JOHANNUS external surround acoustics device. This system, that works with 4 independent loudspeaker boxes in the room, creates a realistic acoustical impression of a concert hall, church or cathedral. It is not recommended to use this output for other purposes.

PHONES
This is the connection for a stereo headphone and suited for up to 2000 ohm.
Using a low impedance headphone (e.g. 8 ohm) may give a too loud volume. This can be regulated with the VOLUME control.

When using a headphone the organ loudspeakers will be automatically switched off. All loudspeaker channels will be divided stereophonically through the two headphone channels.

Choice of temperament

The temperament is the way the different notes within an octave are tuned. This has been changed through the ages, depending on taste, different instruments and new instruments.

On this JOHANNUS organ you may choose from 3 different temperaments:
- Equal temperament
- Werckmeister III temperament
- Meantone temperament

Equal temperament

Today the most widely used and accepted temperament is the “equal temperament”. This is a tuning where all 12 quints have been under tuned and all tierces have been overtuned to keep the octave pure. Equal temperament is standard on the Johannus organ. In addition you have a choice out of a Romantic voicing and a Baroque voicing. On an instrument with Equal temperament you may play in any key.

Werckmeister III temperament

Andreas Werckmeister introduced his tuning approximately in 1691 in Germany. Within this temperament the often used tierces are more or less pure tuned. Every key has his own specific character. This effect has been used extensively in the baroque age and even after that. Johann Mattheson writes in 1713 that e.g. f-flat is used to express a resigned, deep and desperate agony. According to him C major is impertinent, but not unsuitable to also express feelings of joy. This temperament is recommended with “intonation 2".

Meantone temperament

In Meantone the often used tierces are tuned pure. E.g. c-e, d-f#, etc. Because the tierces in chords with quints and tierces are determining the purity of a chord we experience these pure chords as very restful. Playing a chromatic scale it appears there are clear differences between the half steps. It is impossible to play pure sounding chords on the a#, f#, g# and b in a Meantone temperament.

This Meantone temperament was in use until appr. 1650. Music from this period of time is based on this temperament. Because all the half steps the chromatical parts of the music sounds violent. This possibility has often been used to create special feelings among the listeners. The more false the chords, the deeper the emotion.

From the period of time of appr. 1550-1650 there are many examples where also the less pure chords have been used for expressive purposes. Composers that lived and worked then were e.g. Michael Praetorius (1571-1621) and Jan Pieterszoon Sweelinck (1562-1621).

In fact this music needs a meantone temperament to give it an extra dimension. In our modern equal temperament this music sounds accentless and the true dimension gets lost. This Meantime temperament sounds best with the “intonation 2" switched on.

Using free combinations (capture system)

What are free combinations?

Free combinations are a special kind of presets. The combination of stops in presets are fixed. With free combinations you are able to store your choice of stop combinations into the memory and recall them when needed. This, of course, is especially helpful when many different registrations occur in a piece of music. It makes the help of assistants redundant.

The memory of free combinations is protected so that is cannot be erased when you switch off the organ or when you unplug the organ from the main power.

The capture system consists of the following:
- Key switch MEMORY LOCK
- Thumb pistons - and +
- Display
- Thumb piston SET
- Thumb pistons 1 thru 8

With the capture system you can program 64 personal registrations. These registrations can be recalled at any time. The capture system has eight memory banks to be chosen with the thumb pistons - and +. Every memory bank can store 8 combinations, accessible by the pistons 1 thru 8. On every setter location you may store a personal registration. Only the accessories Chorus, Intonation 2 and the MIDI-stops cannot be stored in the capture system.

How to set free combinations

A free combination is programmed as follows:

1. First check if the pistons GC and PG are not switched on. This to avoid modifying a stop combination of the General Crescendo.

2. Make the memory accessible by turning the MEMORY LOCK a quarter turn to the right. The SET piston will light up to indicate the memory can be accessed.

3. Choose the registration you want to store in the capture system.

4. Choose a memory bank (e.g. memory bank M6) by pushing one or more times on the - or + piston until the display shows the correct memory bank (in this example *6*).

5. Push on SET (keep on pushing) and choose the memory number (e.g. piston number 3). On the display you will see the letter *P* to indicate that the registration is programmed in the capture.

6. First release the piston for the memory number (in this example number 3) and then the SET piston.

7. Close the memory by turning the key switch MEMORY LOCK a quarter turn to the left and remove, if necessary, the key from the switch. The light in the SET piston will go off to indicate that the memory is not accessible anymore.

8. Write the programmed combination (e.g. M6-3) in your music paper where you want to use it.

The personal registration has now been stored in memory bank 6 in number 3.

Recalling the free combinations

To recall the personal registrations it is not necessary to make the capture system accessible with the key switch MEMORY LOCK. Recalling goes as follows:

1. Determine the setter combination you want to recall (e.g. M2-3).
2. Choose the memory bank with the - and + pistons (e.g. M2). The memory bank shows up in the display.
3. Then choose the memory number (e.g. push piston 3).

In the registration you recalled you may add or remove stops by hand.

Using the General Crescendo

With the general crescendo you can add stops from very soft (pianissimo) till full organ (Tutti). The 20 steps are preset according to musical standards.

The general crescendo always has priority above the manual registration, fixed combination or free combination. Also the stops switched on by the general crescendo cannot be canceled by the 0 piston. Within a stops combination of the general crescendo it is possible to add extra stops. Reeds which have been switched on by the general crescendo can be switched off by the RO (Reeds Off) switch.

When desired you may change the standard stop combination setting of each general crescendo step - except the 0 - and store in the general crescendo memory.

It is always possible to restore the stop combinations as initially stored by the designer of the organ into the general crescendo memory. However, this can only be done with all 20 steps at once. This will erase all personal combinations too.

The memory of the general crescendo is protected so that it cannot be erased when you switch off the organ or when you unplug the organ from the main power.

The general crescendo consists of the following:

- Pistons GC and PG
- Display
- General crescendo pedal
- Key switch MEMORY LOCK
- Thumb piston - and +
- Thumb piston SET

To use the general crescendo pedal the piston GC must be pushed. The display on the right of the keyboards will not longer show a chosen memory group of the capture system, but indicate until which step the general crescendo has been switched on.

Programming the general crescendo

A stop combination in the general crescendo can be changed as follows:

1. Make the memory accessible by turning the MEMORY LOCK a quarter turn to the right. The SET position will light up to indicate that the memory can be accessed.

2. Push the pistons GC and PG. The display will show a *0* (level 0, meaning all stops of the general crescendo off). Also all stops will switch off. Changing the general crescendo pedal will have no effect anymore.

3. Choose the level of the general crescendo you want to change by pushing on or more times on the - or the + piston until the display shows the level you want to change (e.g. level 5). The stops that belong to this level in the general crescendo will light up.

4. Choose the personal registration for the level (in this case level 5) of the general crescendo you want to store in the general crescendo memory.

5. Push the SET piston. As long as you push the SET piston a *P* will show up in the display to indicate that the personal registration is programmed into the general crescendo memory.
6. Close the general crescendo memory by turning the key switch MEMORY LOCK a

quarter turn to the left (and, if necessary, remove the key from the switch). The light in the SET piston will go off to indicate that the memory is not accessible anymore.

7. Push the PG piston again to switch it off. The general crescendo can be used as normal again.

Recalling the factory settings of general crescendo

The factory setting of stop combinations in the general crescendo can be restored as follows:

1. Make the memory accessible by turning the MEMORY LOCK a quarter turn to the right. The SET piston will light up to indicate the memory can be accessed.

2. Push the pistons GC and PG. The display will show a 0 (level 0, meaning all stops of the general crescendo off). Also all stops will switch off. Changing the general crescendo pedal will have no effect.

3. Push the 0 piston (keep on pushing) and push the SET then. As long as you push the SET piston a P will show up in the display to indicate that the personal registration is programmed into the general crescendo memory.

4. Release the SET piston before releasing the 0 piston.

5. Close the general crescendo memory by turning the key switch MEMORY LOCK a quarter turn to the left (remove, if necessary, the key from the switch). The light in the SET piston will go off to indicate that the memory is not accessible anymore.

6. Push the PG piston again to switch it off. The general crescendo can be used as normal again.

MIDI applications

What is MIDI?

MIDI is the abbreviation of Musical Instruments Digital Interface. With MIDI different musical instruments can be connected with each other or a computer. For example, it is possible to play on your organ and at the same time on a synthesizer or an expander module. The MIDI standard is partly based on hardware. Next to that it is a worldwide agreement about the way music and sound are being interpreted and communicated between devices that have MIDI capability. The MIDI codes sent by a Johannus organ tell e.g. which key is played.

MIDI consists of the following parts:

- MIDI-connections (MIDI IN, MIDI THRU, MIDI OUT)
- MIDI-stops
- A device (e.g. synthesizer) that you want to connect through MIDI
- Connection cables

The MIDI-stops are the last in the group of stops of the Pedal, Great, Swell and Choir (only for Sweelinck 30).

The MIDI stops have a number. The MIDI number for Great on the Sweelinck 10 and 20 is number 1 (for Sweelinck 30 the MIDI Great is number 2). This number indicates the MIDI channel used to transfer key information when playing the Great. MIDI has at least 16 channel to transfer data. The MIDI stops determine from which keyboard(s) you send key information to other device(s).

How and what to connect?

Imagine you want to connect 3 expanders to your organ. One you want to play from the Great, the other from the Swell and the third from the Pedal.

The following has to be done:

1. Connect the expanders with the MIDI cables (DIN).

2. Switch on MIDI stop Great 1. The expander must be configured so that it can only receive data through channel 1.

3. Switch on MIDI Swell 2. Set the second expander for channel 2.

4. Switch on MIDI stop Pedal 3. Set the third expander for channel 3.

Options

Depending on your choice the instrument may have some options.

Voice module

The stops can be played from Swell (Sweelinck 10 and 20) or from Choir (Sweelinck 30). These stops can be seen as extensions of the division.

Toe Studs

Depending on your choice the organ may have the following Toe Pistons/Studs:

COUPLER pistons
With these toe studs you can control couplers. When a coupler is switched off, you can switch it on with the toe studs. Reverse is also possible.

TUTTI piston
This toe stud has the same function as the T thumb piston of the fixed combinations.

CAPTURE pistons
These toe studs have the same function as the memory pistons 1 thru 8.

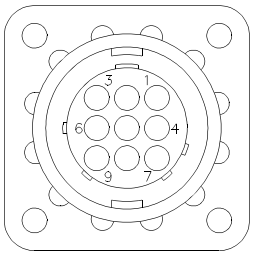
Expanded capture

A standard Sweelinck configuration has 64general free programmable combinations. This can be expanded with 64 free combinations per division. This means 64 memories for the pedal, 64 for the great, 64 for the swell and for the Sweelinck 30 64 for the choir.
The so-called separates (divisionals) can be programmed independently. The programming of the divisionals is the same as the description under “Using free combinations”.

External Loudspeaker system

The organ can be extended with an external loudspeaker system, for example a pipe facade with several speaker boxes behind it. At the back side (or kept internally) are 2 connectors (octal sockets). With a special cable you connect the loudspeaker system to the instrument. In that case there will be a 3-position switch on the instrument too.

The 8 pins of the octal sockets are connected as follows:



Number	Channel	Organ model
LS1-1 LS1-2	Ground (–) ch. 1 Signal (+) ch. 1	Sweelinck 10,20,30
LS1-3 LS1-4	Ground (–) ch. 2 Signal (+) ch. 2	Sweelinck 10,20,30
LS1-5 LS1-6	Ground (–) ch. 3 Signal (+) ch. 3	Sweelinck 10,20,30
LS1-7 LS1-8	Ground (–) ch. 4 Signal (+) ch. 4	Sweelinck 10,20,30
LS2-1 LS2-2	Ground (–) ch. 5 Signal (+) ch. 5	Sweelinck 10,20,30
LS2-3 LS2-4	Ground (–) ch. 6 Signal (+) ch. 6	Sweelinck 20,30
LS2-5 LS2-6	Ground (–) ch. 7 Signal (+) ch. 7	Sweelinck 30
LS2-7 LS2-8	Ground (–) ch. 8 Signal (+) ch. 8	Sweelinck 30

3-position switch

This switch enables you to choose between loudspeakers in the organ and the external loudspeakers.

The switch has the following positions:

Position A
The organ sound comes from the loudspeakers in the organ console and not from the external loudspeakers.

Position AB
The organ sound comes from the loudspeakers in the organ console as well as from the external loudspeakers. However, the sound from the loudspeakers in the organ console is softer than the A-position.

Position B
The organ sound comes from the external speakers and not from the console speakers.

Maintenance

The console consists of wooden veneer and solid wooden parts.

To clean the cabinet use a normal duster or a light wet cloth or chamois and polish with a dry cloth.

We do not recommend furniture- or teak oil, because it may be harmful for the lacquer. Direct sunlight may change the color of the cabinet, especially light oak consoles.

The keys can be treated the same as the woodwork. Little scratches that may originate from playing can be removed with car polish. **NEVER** try to remove spots with aggressive liquors like thinner, acetone, etc. These will irrevocably damage the instrument.

Guarantee

With the purchase of your JOHANNUS Organ you received a limited warrantee card. Please read the conditions carefully and send the bottom part to JOHANNUS Orgelbouw b.v. in Ede as soon as possible. Again we want to emphasize that modifications on the organ or incompetent handling will end the warrantee.

Appendices

Technical specifications

	Sweelinck 10	Sweelinck 20	Sweelinck 30
Voices:			
Romantic	38	47	58
Baroque	38	47	58
Keyboards (churchorgan touch):			
5 octaves (C-c ’’’’) synthetic	2	2	3
5 octaves (C-c ’’’’) wood	option	option	option
Amplifiers/channels (50 Watt max., 8Ω each)	5	6	8
Acoustics			
adjustable volume	●	●	●
programs (length)	3	3	3
Transposer (6 steps +/- 3 halve tones)	●	●	●
Pitch (+/- ¼ tone adjustable)	●	●	●
Fixed combinations (Presets) PP-P-MF-F-FF-T	●	●	●
Free combinations (Capture system)	64	64	64
General volume (MIDI controlled)	●	●	●
Expression pedals (MIDI controlled)	2	2	2
General Crescendo (20 steps programmable)	●	●	●
3-position switch for external loudspeakers	option	option	option
Toe studs	option	option	option
Pedal:			
30 note straight (C-f’)	●	●	●
30 note concave (C-f’)	option	option	option
32 note concave (C-g’)	option	option	option
32 note RACO (C-g’)	option	option	option
32 note AGO (C-g’)	option	option	option
Accessories:			
Couplers	3	3	6
Tremulants	2	2	3
Chorus	●	●	●
MB = Manual Bass	●	●	●
CF = Cantus Firmus	●	●	●
FA = Fix Accessories	●	●	●
RO = Reeds Off	●	●	●
0 = cancel	●	●	●
Temperaments:			
Equal	●	●	●
Werckmeister III	●	●	●
Meantone	●	●	●
External connections:			
MIDI In-Thru-Out	●	●	●
Headphone Stereo up to 2kΩ	●	●	●
External Reverb 470Ω/300mV	●	●	●
Aux In1kΩ/70mV (stereo)	●	●	●
Aux Out 470Ω/300mV (stereo)	●	●	●
Loudspeaker Outputs 8Ω	option	option	option

Technical specifications Cabinet

	Sweelinck 10	Sweelinck 20	Sweelinck 30
Furniture:			
Dark oak or Light Oak	●	●	●
Other Colors or kind of wood	option	option	option
Wooden roll cover	●	●	●
Wooden expression pedals	●	●	●
Pedal lights	●	●	●
Bench with storage space	●	●	●
Bench with lid	option	option	option
Bank with adjustable height	option	option	option
Dimensions:			
Height (without music rack)	117 cm	117 cm	124 cm
Height (with music rack)	139 cm	139 cm	146 cm
Width (30 note straight pedal)	138 cm	138 cm	145 cm
Depth (without pedalboard)	63 cm	63 cm	76 cm
Depth (with 30 note straight pedal)	91 cm	91 cm	94 cm

MIDI Implementation charts

JOHANNUS Organ — Date: July 1998
SWEELINCK 10 — **MIDI Implementation Chart** — Version 3.00

Functions		Transmitted	Recognized	Remarks
Basic Default **Channel** Changes [1]		1, 2, 3, 12 1, 2, 3	1, 2, 3, 12 N	1 = Great 2 = Swell 3 = Pedal 12 = Stops
Mode	Default Messages Altered	Mode 3 N * * * * * * * *	Mode 3 N N	
Note Number	True voice	36 - 96 * * * * * * * *	36 - 96 36 - 96	
Velocity	Note ON Note OFF	9nH (v=64) 9nH (v=0)	9nH v=1 - 127 9nH v=0, 8nH v=*	*=irrelevant
After Touch	Keys Channels	N N	N N	
Pitch Bend		N	N	
Control Change	7 11 100/101/6 100/101/6	Y Y Y Y	Y Y N N	General volume Expression pedals Pitch Transposer
Program Change	:True#	0 - 60 [2] * * * * * * * *	0 - 60 [2] 0 - 60 [2]	0 - 9 Stops Pedal 14 - 27 Stops Great 32 - 45 Stops Swell 48 - 52 Accessories [3] 56 - 60 Accessories [4]
System Exclusive		Y	Y	All stops off
Common	:Song Pos :Song Sel :Tune	N N N	N N N	
System Real Time	:Clock :Commands	N N	N N	
Aux	:Reset All Controller :Local On/OFF :All Notes OFF :Active Sense :Reset	N N N N N	N N Y N N	
Notes		[1] Only note events can be changed [2] Except 10-13, 28-31, 46-47 and 53-55 [3] Couplers and Tremulants [4] Midi's,Chorus and Intonation 2		

Mode 1: OMNY ON, POLY — **Mode 2**: OMNY ON, MONO — Y = YES
Mode 3: OMNY OFF, POLY — **Mode 4**: OMNY OFF, MONO — N = NO

MIDI Implementation Chart

Functions		Transmitted	Recognized	Remarks
Basic	Default	1, 2, 3, 12	1, 2, 3, 12	1 = Great 2 = Swell 3 = Pedal 12 = Stops
Channel	Changes [1]	1, 2, 3	N	
Mode	Default	Mode 3	Mode 3	
	Messages	N	N	
	Altered	* * * * * * * *	N	
Note		36 - 96	36 - 96	
Number	True voice	* * * * * * * *	36 - 96	
Velocity	Note ON	9nH (v=64)	9nH v=1 - 127	
	Note OFF	9nH (v=0)	9nH v=0, 8nH v=*	*=irrelevant
After	Keys	N	N	
Touch	Channels	N	N	
Pitch Bend		N	N	
Control	7	Y	Y	General volume
	11	Y	Y	Expression pedals
Change	100/101/6	Y	N	Pitch
	100/101/6	Y	N	Transposer
Program		0 - 68 [2]	0 - 68 [2]	0 - 11 Stops Pedal 13 - 28 Stops Great 32 - 50 Stops Swell 56 - 60 Accessories [3] 64 - 68 Accessories [4]
Change	:True#	* * * * * * * *	0 - 68 [2]	
System Exclusive		Y	Y	All stops off
	:Song Pos	N	N	
Common	:Song Sel	N	N	
	:Tune	N	N	
System	:Clock	N	N	
Real Time	:Commands	N	N	
	:Reset All Controller	N	N	
	:Local On/OFF	N	N	
Aux	:All Notes OFF	N	Y	
	:Active Sense	N	N	
	:Reset	N	N	
Notes		[1] Only note events can be changed [2] Except 12, 29-31, 51-55 and 61-63 [3] Couplers and Tremulants [4] Midi's, Chorus and Intonation 2		

Mode 1: OMNY ON, POLY
Mode 2: OMNY ON, MONO
Mode 3: OMNY OFF, POLY
Mode 4: OMNY OFF, MONO

Y = YES
N = NO

MIDI Implementation Chart

Functions		Transmitted	Recognized	Remarks
Basic Channel	Default Changes [1]	1, 2, 3, 4, 12 1, 2, 3, 4	1, 2, 3, 4, 12 N	1 = Choir 2 = Great 3 = Swell 4 = Pedal 12 = Stops
Mode	Default Messages Altered	Mode 3 N * * * * * * * *	Mode 3 N N	
Note Number	True voice	36 - 96 * * * * * * * *	36 - 96 36 - 96	
Velocity	Note ON Note OFF	9nH (v=64) 9nH (v=0)	9nH v=1 - 127 9nH v=0, 8nH v=*	*=irrelevant
After Touch	Keys Channels	N N	N N	
Pitch Bend		N	N	
Control Change	7 11 100/101/6 100/101/6	Y Y Y Y	Y Y N N	General volume Expression pedals Pitch Transposer
Program Change	:True#	0 - 60 [2] * * * * * * * *	0 - 85 [2] 0 - 85 [2]	0 - 5 Accessories [3] 8 - 13 Stops Pedal 16 - 21 Stops Pedal 24 - 34 Stops Choir 36 - 52 Stops Great 54 - 74 Stops Swell 80 - 85 Accessories [4]
System Exclusive		Y	Y	All stops off
Common	:Song Pos :Song Sel :Tune	N N N	N N N	
System Real Time	:Clock :Commands	N N	N N	
Aux	:Reset All Controller :Local On/OFF :All Notes OFF :Active Sense :Reset	N N N N N	N N Y N N	
Notes		[1] Only note events can be changed [2] Except 6-7, 14-15, 22-23, 35, 53 and 75-79 [3] Couplers [4] Midi's, Chorus and Intonation 2		

Mode 1: OMNY ON, POLY
Mode 2: OMNY ON, MONO
Mode 3: OMNY OFF, POLY
Mode 4: OMNY OFF, MONO

Y = YES
N = NO

Registration examples

Registration examples Sweelinck 10

			ppp	*pp*	*p*	*mf*	*f*	*ff*	*t*	Solo on Great	Solo on Swell	Trio 1	Trio 2	Romantic	Plenum
PEDAL															
Principal		16'	○	○	○	○	●	●	●	○	○	○	○	○	●
Subbass		16'	●	●	●	●	●	●	●	●	●	●	●	●	●
Octave		8'	○	○	○	●	●	●	●	○	○	●	●	○	●
Gedackt	8'	○	○	●	●	●	●	●	●	●	○	○	○	○	
Choralbass		4'	○	○	○	○	○	●	●	○	○	○	○	○	●
Nachthorn		2'	○	○	○	○	○	○	●	○	○	○	○	○	●
Rauschpfeife		IV	○	○	○	○	○	○	●	○	○	○	○	○	○
Contra Trumpet		16'	○	○	○	○	○	○	●	○	○	○	○	○	○
Trumpet		8'	○	○	○	○	○	●	●	○	○	○	○	○	○
Clarion		4'	○	○	○	○	○	○	●	○	○	○	○	○	○
GREAT															
Bourdon	16'	○	○	○	○	○	●	●	○	○	○	○	○	○	
Principal		8'	○	○	○	●	●	●	●	●	○	○	●	○	●
Stopped Flute		8'	●	●	●	●	●	●	●	●	●	●	○	●	○
Flute Celeste		8'	○	●	●	○	○	○	○	○	○	○	○	●	○
Gamba		8'	○	○	●	●	●	●	●	○	●	○	○	○	○
Octave		4'	○	○	○	○	●	●	●	○	○	○	○	○	●
Open Flute		4'	○	○	○	●	●	●	●	●	●	○	○	○	○
Twelfth		$2^2/_3$'	○	○	○	○	●	●	●	●	○	○	○	○	●
Superoctave		2'	○	○	○	○	○	●	●	○	○	○	○	○	●
Conical Flute		2'	○	○	○	○	●	●	●	○	○	●	○	○	○
Cornet		IV	○	○	○	○	○	○	○	●	○	○	○	○	○
Mixture		V	○	○	○	○	○	●	●	○	○	○	○	○	●
Trumpet		8'	○	○	○	○	○	○	●	○	○	○	○	○	○
Vox Humana		8'	○	○	○	○	●	●	●	○	○	○	○	○	○
SWELL															
Principal		8'	○	○	○	●	●	●	●	●	○	○	○	○	●
Rohrflute		8'	○	○	●	●	●	●	●	●	●	●	●	●	○
Viola di Gamba		8'	●	●	●	●	●	●	●	●	○	○	●	●	○
Vox Celeste		8'	○	●	●	○	○	○	○	●	○	○	○	●	○
Octave		4'	○	○	○	●	●	●	●	●	○	○	○	○	●
Koppelflute		4'	○	○	●	●	●	●	●	●	●	●	○	○	○
Flute Twelfth		$2^2/_3$'	○	○	○	●	●	●	●	●	●	○	○	○	○
Waldflute		2'	○	○	○	○	●	●	●	○	○	○	○	○	●
Nazard		$1^1/_3$'	○	○	○	○	○	●	●	○	○	●	○	○	●
Sesquialter		II	○	○	○	○	○	○	○	○	●	○	○	○	○
Scharff		III	○	○	○	○	●	●	●	○	○	○	○	○	●
Fagotto		16'	○	○	○	○	○	○	●	○	○	○	○	○	○
Cromorne		8'	○	○	○	○	○	●	●	○	○	○	○	○	○
Oboe		8'	○	○	○	○	○	○	●	○	○	○	○	○	○
ACCESSORIES															
Swell-Great			●	●	●	●	●	●	●	●	○	○	○	●	●
Great-Pedal			●	●	●	●	●	●	●	○	●	○	○	●	●
Swell-Pedal			●	●	●	●	●	●	●	●	○	○	○	●	●
Tremulant Great			○	○	○	○	○	○	○	●	○	○	○	●	○
Tremulant Swell			○	○	○	○	○	○	○	●	○	○	○	●	○
Chorus			○	○	○	○	○	○	○	●	○	○	○	●	○

Personal registrations Sweelinck 10

PEDAL															
Principal		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Subbass		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Gedackt	8'	○	○	○	○	○	○	○	○	○	○	○	○	○	
Choralbass		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Nachthorn		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Rauschpfeife		IV	○	○	○	○	○	○	○	○	○	○	○	○	○
Contra Trumpet		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Trumpet		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Clarion		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
GREAT															
Bourdon	16'	○	○	○	○	○	○	○	○	○	○	○	○	○	
Principal		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Stopped Flute		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Flute Celeste		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Gamba		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Open Flute		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Twelfth		$2^2/_3$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Superoctave		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Conical Flute		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Cornet		IV	○	○	○	○	○	○	○	○	○	○	○	○	○
Mixture		V	○	○	○	○	○	○	○	○	○	○	○	○	○
Trumpet		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Vox Humana		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
SWELL															
Principal		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Rohrflute		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Viola di Gamba		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Vox Celeste		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Koppelflute		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Flute Twelfth		$2^2/_3$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Waldflute		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Nazard		$1^1/_3$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Sesquialter		II	○	○	○	○	○	○	○	○	○	○	○	○	○
Scharff		III	○	○	○	○	○	○	○	○	○	○	○	○	○
Fagotto		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Cromorne		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Oboe		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
ACCESSORIES															
Swell-Great			○	○	○	○	○	○	○	○	○	○	○	○	○
Great-Pedal			○	○	○	○	○	○	○	○	○	○	○	○	○
Swell -Pedal			○	○	○	○	○	○	○	○	○	○	○	○	○
Tremulant Great			○	○	○	○	○	○	○	○	○	○	○	○	○
Tremulant Swell			○	○	○	○	○	○	○	○	○	○	○	○	○
Chorus			○	○	○	○	○	○	○	○	○	○	○	○	○

Registration examples Sweelinck 20

			ppp	*pp*	*p*	*mf*	*f*	*ff*	*t*	Solo on Great	Solo on Swell	Trio 1	Trio 2	Romantic	Plenum
PEDAL															
Principal		16'	○	○	○	○	○	●	●	○	○	○	○	○	●
Subbass		16'	●	●	●	●	●	●	●	●	●	●	○	●	●
Octave		8'	○	○	○	○	●	●	●	○	○	●	●	○	●
Gedackt	8'	○	○	●	●	●	●	●	●	●	○	○	●	○	
Choralbass		4'	○	○	○	○	○	●	●	○	○	○	●	○	●
Bassflute		4'	○	○	○	○	●	●	●	○	○	○	○	○	○
Nachthorn		2'	○	○	○	○	○	●	●	○	○	○	○	○	●
Rauschpfeife		IV	○	○	○	○	○	○	●	○	○	○	○	○	●
Bombarde		32'	○	○	○	○	○	○	○	○	○	○	○	○	○
Contra Trumpet		16'	○	○	○	○	○	○	●	○	○	○	○	○	○
Trumpet		8'	○	○	○	○	○	●	●	○	○	○	○	○	○
Clarion		4'	○	○	○	○	○	○	●	○	○	○	○	○	○
GREAT															
Bourdon	16'	○	○	○	○	○	●	●	○	○	○	○	○	○	
Principal		8'	○	○	○	○	●	●	●	●	○	○	●	○	●
Diapason		8'	○	○	○	●	●	●	●	○	○	○	○	●	○
Stopped Flute		8'	○	●	●	●	●	●	●	○	●	●	○	●	○
Flute Celeste		8'	○	○	●	○	○	○	○	○	○	○	○	●	○
Gamba		8'	●	●	●	●	●	●	●	○	●	○	○	●	○
Octave		4'	○	○	○	○	●	●	●	●	○	○	○	○	●
Open Flute		4'	○	○	○	●	●	●	●	●	○	○	○	○	○
Twelfth		$2^2/_3$'	○	○	○	○	●	●	●	●	○	●	○	○	●
Superoctave		2'	○	○	○	○	○	●	●	○	○	○	●	○	●
Conical Flute		2'	○	○	○	○	●	●	●	○	○	○	○	○	○
Cornet		IV	○	○	○	○	○	○	○	●	○	○	○	○	○
Mixture		VII	○	○	○	○	○	●	●	○	○	○	○	○	●
Contra Trumpet		16'	○	○	○	○	○	○	●	○	○	○	○	○	○
Trumpet		8'	○	○	○	○	○	●	●	○	○	○	○	○	○
Vox Humana		8'	○	○	○	○	●	●	●	○	○	○	○	○	○
SWELL															
Quintaton		16'	○	○	○	○	●	●	●	○	○	○	○	○	○
Principal		8'	○	○	○	●	●	●	●	●	○	○	○	○	●
Rohrflute		8'	○	○	●	●	●	●	●	●	●	●	●	●	○
Viola di Gamba		8'	●	●	●	●	●	●	●	●	○	○	○	●	○
Vox Celeste		8'	○	●	●	○	○	○	○	●	○	○	○	●	○
Octave		4'	○	○	○	○	●	●	●	○	○	○	○	○	●
Koppelflute		4'	○	○	○	●	●	●	●	●	○	○	○	●	○
Salicional		4'	○	○	○	●	●	●	●	○	○	○	○	○	○
Flute Twelfth		$2^2/_3$'	○	○	○	○	●	●	●	●	●	○	●	●	○
Octave		2'	○	○	○	○	●	●	●	○	○	●	○	○	●
Waldflute		2'	○	○	○	○	●	●	●	○	○	○	○	○	○
Nazard		$1^1/_3$'	○	○	○	○	○	●	●	○	○	●	○	○	●
Octave		1'	○	○	○	○	○	○	●	○	○	○	●	○	●
Sesquialter		II	○	○	○	○	○	○	○	○	●	○	○	○	○
Scharff		III	○	○	○	○	○	○	●	○	○	○	○	○	●
Fagotto		16'	○	○	○	○	○	○	●	○	○	○	○	○	○
Festival Trumpet	8'	○	○	○	○	○	○	○	○	○	○	○	○		
Cromorne		8'	○	○	○	○	●	●	●	○	○	○	○	○	○
Oboe		8'	○	○	○	○	○	●	●	○	○	○	○	○	○
ACCESSORIES															
Swell-Great			●	●	●	●	●	●	●	●	○	○	○	●	●
Great-Pedal			●	●	●	●	●	●	●	○	●	○	○	●	●
Swell -Pedal			●	●	●	●	●	●	●	●	○	○	○	●	●
Tremulant Great			○	○	○	○	○	○	○	●	○	○	○	●	○
Tremulant Swell			○	○	○	○	○	○	○	●	○	○	○	●	○
Chorus			○	○	○	○	○	○	○	●	○	○	○	●	○

Personal registrations Sweelinck 20

PEDAL															
Principal		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Subbass		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Gedackt	8'	○	○	○	○	○	○	○	○	○	○	○	○	○	
Choralbass		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Flute		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Nachthorn		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Rauschpfeife		IV	○	○	○	○	○	○	○	○	○	○	○	○	○
Bombarde		32'	○	○	○	○	○	○	○	○	○	○	○	○	○
Contra Trumpet		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Trumpet		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Clarion		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
GREAT															
Bourdon	16'	○	○	○	○	○	○	○	○	○	○	○	○	○	
Principal		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Diapason		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Stopped flute		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Flute Celeste		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Gamba		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Open Flute		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Twelfth		$2^2/_3$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Superoctave		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Conical Flute		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Cornet		IV	○	○	○	○	○	○	○	○	○	○	○	○	○
Mixture		VII	○	○	○	○	○	○	○	○	○	○	○	○	○
Contra Trumpet		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Trumpet		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Vox Humana		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
SWELL															
Quintaton		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Principal		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Rohrflute		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Viola di Gamba		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Vox Celeste		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Koppelflute		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Salicional		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Flute Twelfth		$2^2/_3$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Waldflute		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Nazard		$1^1/_3$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		1'	○	○	○	○	○	○	○	○	○	○	○	○	○
Sesquialter		II	○	○	○	○	○	○	○	○	○	○	○	○	○
Scharff		III	○	○	○	○	○	○	○	○	○	○	○	○	○
Fagotto		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Festival Trumpet	8'	○	○	○	○	○	○	○	○	○	○	○	○	○	
Cromorne		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Oboe		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
ACCESSORIES															
Swell-Great			○	○	○	○	○	○	○	○	○	○	○	○	○
Great-Pedal			○	○	○	○	○	○	○	○	○	○	○	○	○
Swell -Pedal			○	○	○	○	○	○	○	○	○	○	○	○	○
Tremulant Great			○	○	○	○	○	○	○	○	○	○	○	○	○
Tremulant Swell			○	○	○	○	○	○	○	○	○	○	○	○	○
Chorus			○	○	○	○	○	○	○	○	○	○	○	○	○

Registration examples Sweelinck 30

			ppp	*pp*	*p*	*mf*	*f*	*ff*	*t*	Solo on Great	Solo on Swell	Trio 1	Trio 2	Romantic	Plenum
PEDAL															
Principal		16'	○	○	○	○	●	●	●	○	○	○	○	○	●
Subbass		16'	●	●	●	●	●	●	●	●	●	●	○	●	●
Octave		8'	○	○	○	●	●	●	●	●	○	●	●	○	●
Gedackt	8'	○	○	●	●	●	●	●	●	●	○	●	●	○	
Choralbass		4'	○	○	○	○	●	●	●	○	○	○	○	○	●
Bassflute		4'	○	○	○	○	○	●	●	○	○	○	○	○	○
Nachthorn		2'	○	○	○	○	○	●	●	○	○	○	○	○	●
Rauschpfeife		IV	○	○	○	○	○	○	●	○	○	○	○	○	●
Bombarde		32'	○	○	○	○	○	○	○	○	○	○	○	○	○
Contra Trumpet		16'	○	○	○	○	○	○	●	○	○	○	○	○	○
Trumpet		8'	○	○	○	○	○	●	●	○	○	○	○	○	○
Clarion		4'	○	○	○	○	○	○	●	○	○	○	○	○	○
CHOIR															
Principal		8'	○	○	●	●	●	●	●	○	○	○	●	○	●
Bourdon	8'	●	●	●	●	●	●	●	●	●	●	○	●	○	
Octave		4'	○	○	○	●	●	●	●	○	○	○	○	○	●
Flute		4'	○	○	●	●	●	●	●	●	●	○	○	●	○
Nazard		$2^2/_3$'	○	○	○	○	○	●	●	○	○	○	○	○	○
Flute		2'	○	○	○	○	●	●	●	○	○	●	●	○	●
Tierce		$1^3/_5$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		1'	○	○	○	○	○	●	●	○	○	○	○	○	●
Cymbale		III	○	○	○	○	○	○	●	○	○	○	○	○	●
Regal		8'	○	○	○	○	○	○	●	○	○	○	○	○	○
Tremulant Choir			○	○	○	○	○	○	○	●	○	○	○	●	○
GREAT															
Principal		16'	○	○	○	○	○	●	●	○	○	○	○	○	○
Principal		8'	○	○	○	●	●	●	●	●	○	○	●	○	●
Diapason		8'	○	○	●	●	●	●	●	○	○	○	○	●	●
Stopped Flute		8'	○	●	●	●	●	●	●	●	●	●	○	●	○
Flute Celeste		8'	○	○	●	○	○	○	○	○	○	○	○	●	○
Gamba		8'	●	●	●	●	●	●	●	○	●	○	○	●	○
Octave		4'	○	○	○	○	●	●	●	●	○	○	○	○	●
Open Flute		4'	○	○	○	●	●	●	●	●	●	○	○	●	○
Twelfth		$2^2/_3$'	○	○	○	○	○	●	●	●	○	●	○	○	●
Superoctave		2'	○	○	○	○	○	●	●	○	○	○	○	○	●
Conical Flute		2'	○	○	○	○	●	●	●	○	○	○	●	○	○
Cornet		IV	○	○	○	○	○	○	○	●	○	○	○	○	○
Mixture		VII	○	○	○	○	○	●	●	○	○	○	○	○	●
Contra Trumpet		16'	○	○	○	○	○	○	●	○	○	○	○	○	○
Trumpet		8'	○	○	○	○	○	●	●	○	○	○	○	○	○
Vox Humana		8'	○	○	○	○	●	●	●	○	○	○	○	○	○
Tremulant Great			○	○	○	○	○	○	○	●	○	○	○	●	○
SWELL															
Quintaton		16'	○	○	○	○	●	●	●	○	○	○	○	○	○
Principal		8'	○	○	○	●	●	●	●	●	●	○	●	○	●
Rohrflute		8'	○	○	●	●	●	●	●	●	●	●	○	●	○
Viola di Gamba		8'	●	●	●	●	●	●	●	●	○	○	○	●	○
Vox Celeste		8'	○	●	●	○	○	○	○	●	○	○	○	●	○
Octave		4'	○	○	○	○	●	●	●	●	○	○	○	○	●
Koppelflute		4'	○	○	○	●	●	●	●	●	●	●	○	●	○
Salicional		4'	○	○	○	○	●	●	●	●	○	○	○	○	○
Flute Twelfth		$2^2/_3$'	○	○	○	○	●	●	●	●	●	○	●	●	○
Octave		2'	○	○	○	○	○	●	●	○	○	○	○	○	●
Waldflute		2'	○	○	○	○	●	●	●	○	○	○	○	○	○
Nazard		$1^1/_3$'	○	○	○	○	○	●	●	○	○	●	○	○	●
Octave		1'	○	○	○	○	○	○	●	○	○	○	●	○	●
Sesquialter		II	○	○	○	○	○	○	○	○	●	○	○	○	○
Scharff		III	○	○	○	○	○	●	●	○	○	○	○	○	●
Fagotto		16'	○	○	○	○	○	○	●	○	○	○	○	○	○
Festival Trumpet	8'	○	○	○	○	○	○	○	○	○	○	○	○	○	
Cromorne		8'	○	○	○	○	●	●	●	○	○	○	○	○	○
Oboe		8'	○	○	○	○	○	●	●	○	○	○	○	○	○
Schalmei		4'	○	○	○	○	○	○	●	○	○	○	○	○	○
Tremulant Swell			○	○	○	○	○	○	○	●	○	○	○	●	○
ACCESSORIES															
Choir-Great			○	○	●	●	●	●	●	●	●	○	○	●	●
Swell -Great			○	●	●	●	●	●	●	●	○	○	○	●	●
Swell -Choirf			○	○	●	●	●	●	●	●	○	○	○	●	●
Choir-Pedal			○	●	●	●	●	●	●	●	●	○	○	●	●
Great-Pedal			○	○	○	●	●	●	●	○	○	○	○	●	●
Swell-Pedal			○	○	●	●	●	●	●	●	○	○	○	●	●
Chorus			○	○	○	○	○	○	○	●	○	○	○	●	○

Personal registrations Sweelinck 30

PEDAL															
Principal		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Subbass		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Gedackt	8'	○	○	○	○	○	○	○	○	○	○	○	○	○	
Choralbass		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Bassflute		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Nachthorn		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Rauschpfeife		IV	○	○	○	○	○	○	○	○	○	○	○	○	○
Bombarde		32'	○	○	○	○	○	○	○	○	○	○	○	○	○
Contra Trumpet		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Trumpet		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Clarion		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
CHOIR															
Principal		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Bourdon	8'	○	○	○	○	○	○	○	○	○	○	○	○	○	
Octave		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Flute		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Nazard		$2^2/_3$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Flute		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Tierce		$1^3/_5$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		1'	○	○	○	○	○	○	○	○	○	○	○	○	○
Cymbale		III	○	○	○	○	○	○	○	○	○	○	○	○	○
Regal		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Tremulant Choir			○	○	○	○	○	○	○	○	○	○	○	○	○
GREAT															
Principal		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Principal		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Diapason		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Stopped Flute		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Flute Celeste		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Gamba		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Open Flute		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Twelfth		$2^2/_3$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Superoctave		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Conical Flute		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Cornet		IV	○	○	○	○	○	○	○	○	○	○	○	○	○
Mixture		VII	○	○	○	○	○	○	○	○	○	○	○	○	○
Contra Trumpet		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Trumpet		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Vox Humana		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Tremulant Great			○	○	○	○	○	○	○	○	○	○	○	○	○
SWELL															
Quintaton		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Principal		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Rohrflute		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Viola di Gamba		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Vox Celeste		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Koppelflute		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Salicional		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Flute Twelfth		$2^2/_3$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Waldflute		2'	○	○	○	○	○	○	○	○	○	○	○	○	○
Nazard		$1^1/_3$'	○	○	○	○	○	○	○	○	○	○	○	○	○
Octave		1'	○	○	○	○	○	○	○	○	○	○	○	○	○
Sesquialter		II	○	○	○	○	○	○	○	○	○	○	○	○	○
Scharff		III	○	○	○	○	○	○	○	○	○	○	○	○	○
Fagotto		16'	○	○	○	○	○	○	○	○	○	○	○	○	○
Festival Trumpet	8'	○	○	○	○	○	○	○	○	○	○	○	○	○	
Cromorne		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Oboe		8'	○	○	○	○	○	○	○	○	○	○	○	○	○
Schalmei		4'	○	○	○	○	○	○	○	○	○	○	○	○	○
Tremulant Swell			○	○	○	○	○	○	○	○	○	○	○	○	○
ACCESSORIES															
Choir-Great			○	○	○	○	○	○	○	○	○	○	○	○	○
Swell-Great			○	○	○	○	○	○	○	○	○	○	○	○	○
Swell-Choir			○	○	○	○	○	○	○	○	○	○	○	○	○
Choir-Pedal			○	○	○	○	○	○	○	○	○	○	○	○	○
Great-Pedal			○	○	○	○	○	○	○	○	○	○	○	○	○
Swell-Pedal			○	○	○	○	○	○	○	○	○	○	○	○	○
Chorus			○	○	○	○	○	○	○	○	○	○	○	○	○