User's Manual

# JOHANNUS

Rembrandt 200, 300, 2000 and 3000 AGO

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## 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 new 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.

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## 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.

If this is the case when your new organ is a Rembrandt 200 or 300, simply insert the music rack into the groove provided on the top panel of the organ cabinet.

On the Rembrandt 2000 and 3000 there are two supports left and right. Insert the music rack with the two wooden pins into the grooves provided. The music rack rests against the front of the roll-top cover. To close the roll-top cover the music rack has to be turned downwards until it rests on the side blocks of the keyboards. After that the roll-top cover may be closed.

## The roll-top cover

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.
- 4. In case of the Rembrandt 2000 or 3000, turn up the music rack until it rests against the front of the roll-top cover.



Lock the organ in the following way:

- 1. Make certain that you have the key handy (see warning).
- 2. In case of the Rembrandt 2000 or 3000, turn down the music rack until it rests on the side blocks of the keyboard.
- 3. Pull at the roll-top toward you.
- 4. Push in the cover-lock.

#### Warning

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

### The pedalboard

Typically, AGO (American Guild of Organists) organs have a 32-note AGO pedalboard.

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 pedal-board:

- 1. Make sure that the surface under the console in combination with the pedalboard is flat.
- 2. For the best alignment of the pedal-board, 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 always work properly.

### Switching on the 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 circuits need this time to initialize.

The display of the organ (located on the right side above the keyboards) will show the following text:

> Mem: 1 Vol:12 Tune: 440 0 Crescendo:Off Trans:

Depending on the programmed settings the gray areas may have a different value.

Also the '0' thumb pistons will light up.

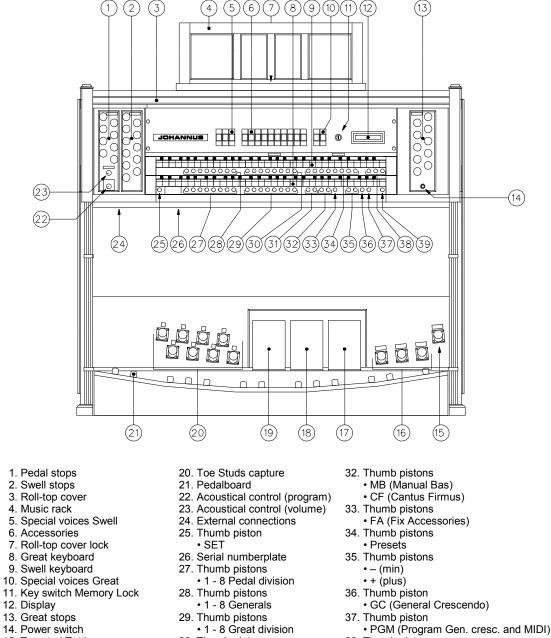


## The console in detail

## Overview of the controls by type

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

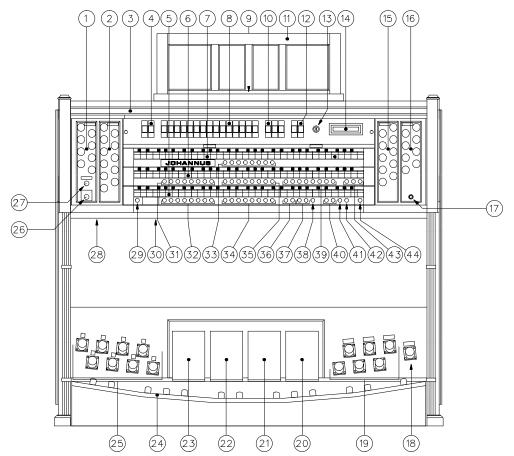
#### **Rembrandt 200 AGO**



- 15. Toe stud Tutti
- 16. Toe studs couplers
- 17. General crescendo pedal 18. Expression pedal Swell
- 19. Expression pedal Great+Pedal
- 30. Thumb pistons
- 1 8 Swell division
- 31. Thumb pistons
  - WM (Werckmeister III) • MT (Meantone)
- 38. Thumb pistons
  - VOL. (Volume)
  - TRANS. (Transposer)
  - TUNE (Tuning)
- 39 Thumb piston
  - 0 (Cancel/undo)

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#### **Rembrandt 300 AGO**



- 1. Pedal stops
- 2. Swell stops
- 3. Roll-top cover
- 4. Special voices Swell
- 5. Choir keyboard
- 6. Great keyboard
- 7. Swell keyboard
- 8. Accessories
- 9. Roll-top cover lock
- 10. Special voices Great
- 11. Music rack
- 12. Special voices Choir 13. Key switch Memory Lock
- 14. Display
- 15. Great stops
- 16. Choir stops
- 17. Power switch
- 18. Toe stud Tutti
- 19. Toe studs couplers
- 20. General crescendo pedal

- 21. Expression pedal Swell
- 22. Expression pedal Great+Pedal 23. Expression pedal Choir
- 24. Pedalboard
- 25. Toe studs capture
- 26. Acoustical control (program)
- 27. Acoustical control (volume)
- 28. External connections
- 29. Thumb piston
- SET
- 30. Serial number plate
- 31. Thumb pistons
- 1 8 Generals
- 32. Thumb pistons
- 1 8 Pedal division 33. Thumb pistons
- 1 8 Swell division 34. Thumb pistons
- 1 8 Choir division 35. Thumb pistons
  - 1 8 Great division

- 36. Thumb pistons
  - WM (Werckmeister III)
  - MT (Meantone)
- 37. Thumb pistons
  - MB (Manual Bas)
- CF (Cantus Firmus)
- 38. Thumb piston
- FA (Fix Accessories)
- 39. Thumb pistons • Presets
- 40. Thumb pistons
- - (min)
  - + (plus)
- 41. Thumb pistons
  - GC (General Crescendo)
- 42. Thumb piston
  - PGM (Program Gen. cresc. and MIDI)

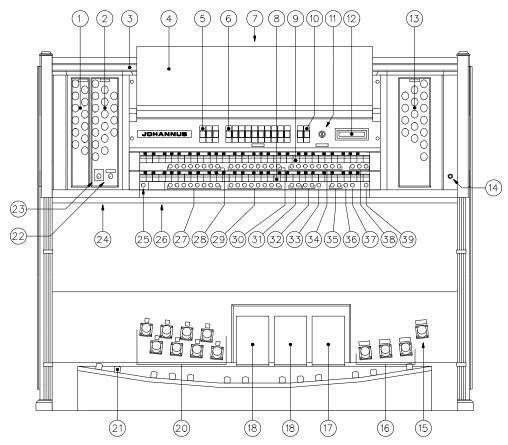
  - VOL. (Volume)
  - TRANS. (Transposer) • TUNE (Tuning)
- 44. Thumb piston

  - 0 (Cancel/undo)



43. Thumb pistons

#### Rembrandt 2000 AGO

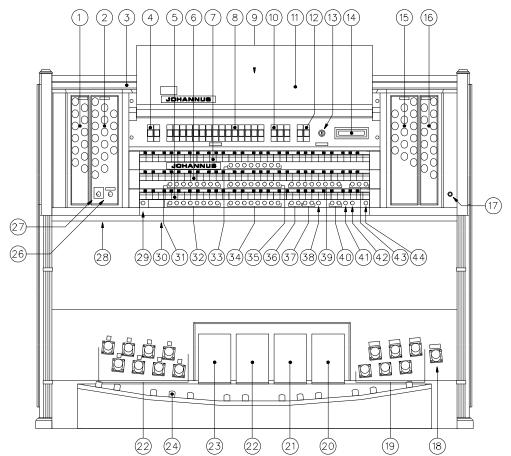


- 1. Pedal stops
- 2. Swell stops
- 3. Roll-top cover
- 4. Music rack
- 5. Special voices Swell
- 6. Accessories
- 7. Roll-top cover lock
- 8. Great keyboard
- 9. Swell keyboard
- 10. Special voices Great
- 11. Key switch Memory Lock
- 12. Display
- 13. Great stops
- 14. Power switch
- 15. Toe stud Tutti
- 16. Toe studs couplers
- 17. General crescendo pedal
- 18. Expression pedal Swell
- 19. Expression pedal Great+Pedal

- 20. Toe Studs capture 21. Pedalboard
- 22. Acoustical control (program)
- 23. Acoustical control (volume)
- 24. External connections
- 25. Thumb piston
- SET
- 26. Serial numberplate
- 27. Thumb pistons
- 1 8 Pedal division 28. Thumb pistons
- 1 8 Generals
- 29. Thumb pistons
- 1 8 Great division
- 30. Thumb pistons
- 1 8 Swell division 31. Thumb pistons
- WM (Werckmeister III) • MT (Meantone)

- 32. Thumb pistons
  - MB (Manual Bas)
  - · CF (Cantus Firmus)
- 33. Thumb pistons • FA (Fix Accessories)
- 34. Thumb pistons • Presets
- 35. Thumb pistons
  - – (min)
  - + (plus)
- 36. Thumb piston• GC (General Crescendo)
- 37. Thumb piston
- PGM (Program Gen. cresc. and MIDI)
- 38. Thumb pistons
  - VOL. (Volume)
  - TRANS. (Transposer)
  - TUNE (Tuning)
- 39 Thumb piston
  - 0 (Cancel/undo)

#### Rembrandt 3000 AGO



- 1. Pedal stops
- 2. Swell stops
- 3. Roll-top cover
- 4. Special voices Swell
- 5. Choir keyboard
- 6. Great keyboard
- 7. Swell keyboard
- 8. Accessories
- 9. Roll-top cover lock
- 10. Special voices Great
- 11. Music rack
- 12. Special voices Choir
- 13. Key switch Memory Lock
- 14. Display
- 15. Great stops
- 16. Choir stops 17. Power switch
- 18. Toe stud Tutti
- 19. Toe studs couplers
- 20. General crescendo pedal

- 21. Expression pedal Swell
- 22. Expression pedal Great+Pedal
- 23. Expression pedal Choir
- 24. Pedalboard
- 25. Toe studs capture
- 26. Acoustical control (program)
- 27. Acoustical control (volume)
- 28. External connections
- 29. Thumb piston
- SET
- 30. Serial number plate
- 31. Thumb pistons
- 1 8 Generals
- 32. Thumb pistons
- 1 8 Pedal division
- 33. Thumb pistons • 1 - 8 Swell division
- 34. Thumb pistons • 1 - 8 Choir division
- 35. Thumb pistons
  - 1 8 Great division

- 36. Thumb pistons
  - WM (Werckmeister III)
- MT (Meantone)
- 37. Thumb pistons
  - MB (Manual Bas)
- CF (Cantus Firmus)
- 38. Thumb piston
- FA (Fix Accessories)
- 39. Thumb pistons
- Presets
- 40. Thumb pistons
  - - (min)
  - + (plus)
- 41. Thumb pistons • GC (General Crescendo)
- 42. Thumb piston
  - PGM (Program Gen. cresc. and MIDI)
- 43. Thumb pistons
  - VOL. (Volume)
  - TRANS. (Transposer)
- TUNE (Tuning)
- 44. Thumb piston
  - 0 (Cancel/undo)



## Accessories

The following accessories are standard:

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

#### Couplers

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

#### Choir - Great (only for Rembrandt 300 AGO /3000 AGO)

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 the corresponding 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 Rembrandt 300 AGO /3000 AGO)

This coupler couples the Swell to the Choir. When playing keys on the Choir the corresponding 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 Rembrandt 300 AGO /3000 AGO)

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.

#### Tremolo

The Tibia Organ stop has it's own independent tremolo. This special stop belongs to the swell division (Rembrandt 200/2000 AGO) or to the great division (Rembrandt 300/3000 AGO).

When you use couplers (and/or the CF piston on the Rembrandt 200/2000 AGO) the Tibia Organ Tremolo 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.

Standard 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-tabs**

The programmable MIDI-tabs are a special group of accessories. See under "MIDI applications" and "Programmable MIDI".

### Display

An LCD-display is located on the right side above the keyboards. On the display different settings are shown like:

• Selected capture memory level (Memory 1 - 8). See "Using the capture system".

```
Mem: I Vol:I2- Tune:440
Trans: 0 Crescendo:Off
```

Volume-setting (Volume 1 - 25). See "Thumb pistons, setting the volume".

Mem: I Vol:I2 Tune:440 Trans: 0 Crescendo:Off

• Pitch adjustment (426Hz - 454Hz). See "Thumb pistons, setting pitch".

```
Mem: I Vol:I2 Tune:440
Trans: 0 Crescendo:Off
```

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Transposer-position (Transposer -3 Thru +3 half steps). See "Thumb pistons, Transposer".

```
Mem: 1 Vol:12 Tune:440
         Crescendo: Off
Trans:
       0
```

General crescendo setting.

Typically the general crescendo is not switched on and the status display will show the text Off. See "Using the general Crescendo".

```
Mem: 1 Vol:12
                 Tune: 440
Trans:
        0
           Crescendo: Off
```

When the general crescendo is switched on the display will show to which level the general crescendo pedal is depressed (level 1 - 20). See "Using the General Crescendo".

```
Mem: 1 Vol: 12
                Tune: 440
Trans:
       0
          Crescendo: 5
```

MIDI-tab settings.

When the PGM piston is switched on, the display will show the required data for programming the MIDI-tabs (The GC piston should not be switched on). See "Programmable MIDI".

```
Midi Program
Voice:
            Channel:
```

## **Key switch**

#### **MEMORY LOCK**

To save your registrations, modified general crescendo levels, volume, tuning, transposer and MIDI settings into the organ memory, 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 "Using free combinations", "Using the general crescendo", "Programmable MIDI" and the description of the thumb pistons Volume, Tune and Transposer.



## Stops

The organ is equipped with two kinds of stops. The speaking voices are on lighted drawknobs, while the accessories and all special voices are on tabs. Both kinds of stops are switches that will come back in their middle position after being switched on or off. In every drawknob or tab a light will light up when that stop is switched on. These stop lights also work with the use of presets, free combinations and general crescendo.

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'll find extensive examples of

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 Diapason, Octave, Twelfth, Fifteenth, 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 gambe, Vox Celeste and Salicet.

#### Flues

Flute stops, open as well as stopped are made of metal or wood. For example: Hohlflute. Gedeckt, 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, Schalmey, etc. The group of cylindrical resonators are: Fagotto, Cromorne, Krummhorn etc. The following reeds have a short resonator: Regal, Vox Humana, Ranket.



## **Special voices**

Except the characteristic pipe organ voices, each division also has two special voices. Although these special voices are no standard pipe organ voices, nevertheless they can be seen as an enrichment of your organ.

On the Rembrandt 200/2000 AGO, the Strings and the Tibia organ are added to the Swell division while the Chimes and the Harpsichord can be found on the Great division.

On the Rembrandt 300/3000 AGO, the Strings and the Choir are added to the Swell division, the Chimes and the Tibia organ to the Great division and the Harpsichord and Harp are added to the Choir division.

## 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.



## Expression pedals

The volume of each keyboard is adjustable with:

#### Expression pedal Choir (only for Rembrandt 300/3000)

With the left expression pedal you adjust the volume of the choir.

#### **Expression pedal Great + Pedal**

With the left (for Rembrandt 300/3000 the middle) 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 from the adjusted General Volume. For adjusting General Volume see: "Thumb pistons, Volume."

### Thumb pistons

Thumb pistons are switches that after being switched on or off remain in the same position. For that every thumb piston has a light build in that lights on as soon as it is switched on.

#### WM = Werckmeister

By pushing this piston you choose for the Werckmeister III 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 Werckmeister III 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 board 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 you use the Swell to Great coupler 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 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 piston again its function will be switched off again.

#### SET

A thumb piston to program:

- Free combinations (see under "Using free combinations").
- Stop combinations of the General Crescendo (see under "Using the General Crescendo").
- Volume-, Tune- en Transposer-adjustments (see under the description of the thumb pistons Volume, Tune and Transposer).
- MIDI-tabs.

#### 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 "Using free combinations".

#### - and +

Thumb pistons with which you:

- Choose a Memory level (bank 1 thru 8). (See under "Using free combinations/ capture system".)
- Choose a step to be programmed in the General Crescendo. (See under using the General Crescendo.)
- Adjust the volume, tune en transposer (see under the description of the thumb pistons Volume, Tune and Transposer).
- Choose an expander module patch/voice number and a channel number (see under "Programmable MIDI").

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".

#### PGM = Program General crescendo and MIDI-tabs

Piston that enables you:

- To change the stop combinations of the General Crescendo. See under "Using the General crescendo".
- To program a MIDI-tab. See under "Programmable MIDI".

#### PP thru T

The fixed combinations (presets) are registrations, preset according to musical standards, starting with 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 (cancel/undo) can be found at the far right under the lowest keyboard. The 0 piston on the organ is duplicated. The 0-piston is also located to the right of the "T" piston.

The pistons have two functions. It may happen that you switch on a preset or add a stop by hand by mistake. By pushing one of the "0" pistons short you will <u>undo</u> 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 Pricipal 4'. There is always a very short time between switching on the Principal 8' and the Principal 4'. By pushing a "0" piston briefly only the Principal 4 ' will be switched off (undo the latest 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 a "0" piston longer all stops will be switched off at once. Exceptions are: the couplers and tremulants when the FA piston is switched on and the stops Chorus and Intonation 2.

#### 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 piston again this function will be switched off.

#### VOL. = Volume

Independent from the position of the expression pedals you may adjust the total volume of the organ with the piston VOL. in combination with the - and + pistons. The adjusted volume you can store in the memory. When you switch on the organ the in the memory preprogramed volume setting will automatically be chosen. If desired you can always change the programmed volume setting again.

The memory of the volume adjustment 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 volume can be adjusted between 1 and 25. The choice of volume can be seen in the display:

Mem: I Vol:I2 Tune:440 Trans: 0 Crescendo:Off



The volume can be adjusted as follows:

- 1. Push the VOL. Piston. As long as the light of the VOL. piston remains lighting up you can change the volume setting.
- 2. Adjust the desired volume by pushing the or + piston as may times as necessary to reach the desired volume.
- 3. After some seconds the lights of the VOL. As well as the and + pistons will switch off automatically.
- 4. This volume setting has not been programmed and you will loose it as soon as you switch off the organ.

A volume setting can be programmed 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 VOL. Piston. As long as the light of the VOL. piston remains lighting up you can change the volume setting.
- 3. Adjust the desired volume by pushing the or + piston as many times as necessary to reach the desired volume.
- 4. Push the SET piston when the right volume level has been reached. As long as you push the SET piston a P will show up in the display to indicate that the chosen volume setting is being programmed.

Mem: P6 Vol: I2 Tune: 440 Trans: 0 Crescendo: Off

The programming into the memory can be done only if the piston VOL. lights up. After some seconds the lights of the VOL. as well as the - and + pistons will switch off automatically.

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

The volume setting has been stored in the memory. Every time the organ will be switched on from now on the in the memory programmed volume setting will be chosen automatically.

#### TUNE

The standard pitch for musical instruments is A=440Hz.

You can change the pitch with the TUNE piston in combination with the - and + pistons in steps of 1 Hz. From 426 Hz (a quarter step lower than the std pitch) until 454 Hz (a quarter step higher than the std pitch). An adjusted pitch can be programmed into the memory. When the organ is switched on this programmed pitch will be chosen automatically. If desired you can always change the programmed volume setting again.

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

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The adjusted pitch you can read in the display:

```
Mem: I Vol:I2 Tune:440
Trans: 0 Crescendo:Off
```

The pitch can be adjusted in the following way:

- 1. Push piston TUNE. As long as the light in the thumb piston lights up you can adjust the pitch.
- 2. Adjust the desired pitch by pushing the or the + piston one or more times.
- After some seconds the lights of the piston TUNE as well as the and the + piston will be switched off automatically.

The pitch setting has not been stored and will be erased when you switch off the organ.

You may program a pitch setting as follows:

- 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 TUNE Piston. As long as the light of the TUNE piston remains lighting up you can change the volume setting.
- 3. Adjust the desired pitch by pushing the or + piston as many times as necessary to reach the desired pitch.
- 4. Push the SET piston when the right pitch level has been reached. As long as you push the SET piston a P will show up in the display to indicate that the chosen pitch setting is being programmed.

Mem: P6 Vol:I2 Tune:440 Trans: 0 Crescendo:Off

The programming into the memory can be done only if the piston TUNE lights up. After some seconds the lights of the TUNE as well as the - and + pistons will switch off automatically.

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

The volume setting has been stored in the memory. Every time the organ will be switched on from now on the in the memory programmed volume setting will be chosen automatically.

#### TRANS. = Transposer

With the TRANS. Thumb piston in combination with the - and the + piston it is possible to transpose the organ. This means the organ can be tuned some steps higher or lower. The adjusted setting can be stored in the memory. When the organ is switched on this programmed TRANS. will be chosen automatically. If desired you can always change the programmed transposer setting again.

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

You are able to transpose the organ 3 half steps lower and 3 half steps higher. The adjusted transposer setting you can read in the display.

```
Mem: I Vol:I2 Tune:440
Trans:-2 Crescendo:Off
```

The transposer can be adjusted as follows:

- 1. Push thumb piston TRANS. As long as the light in the thumb piston lights up you can adjust the pitch.
- 2. Adjust the desired transposer position by pushing the or the + piston one or more times.
- 3. After some seconds the lights of the piston TRANS. as well as the and the + piston will be switched off automatically.

The transposer setting has not been stored and will be erased when you switch off the organ.

You may program a transposer setting 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 TRANS. piston. As long as the light of the TRANS. piston remains lighting up you can change the volume setting.
- 3. Adjust the desired transposer setting by pushing the or + piston as many times as necessary to reach the desired pitch.
- 4. Push the SET piston when the right pitch level has been reached. As long as you push the SET piston a P will show up in the display to indicate that the chosen pitch setting is being programmed.

Mem: P 6 Vol: I2 Tune: 440 Trans: -2 Crescendo: Off

The programming into the memory can be done only if the piston TRANS. lights up. After some seconds the lights of the TRANS. as well as the - and + pistons will switch off automatically.

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

The transposer setting has been stored in the memory. Every time the organ will be switched on from now on the in the memory programmed transposer setting will be chosen automatically.

#### S/S = All swells to swell

The S/S piston may be a custom-ordered piston for the Rembrandt 300/3000 AGO. Pushing this piston will couple all expression pedals to the swell division expression pedal. This enables you to adjust the volume of the entire organ with only one expression pedal.

### **Acoustics**

The build-in digital acoustics provide a spacial reverberation of the organ sound.

#### ACOUSTIC (volume)

With this control the volume of the reverberations can be adjusted. To completely switch off the reverberations you turn the control to the left.

#### ACOUSTIC (program)

With the position switch you may choose from 3 different acoustical environments.

### **Toe Studs**

The organ 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 possible too.

#### TUTTI piston

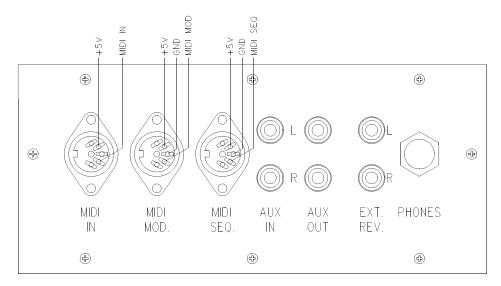
This toe stud has the same function as the T thumb piston of the fixed combinations.

#### CAPTURE pistons

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



## **External Connections**



The following external connections are located left under the console:

#### **MIDI IN**

To receive MIDI-codes from other instruments.

#### MIDI MOD.

Programmable MIDI-output. This MIDI-output is programmable for optimal use of e.g. an Sound expander module.

#### MIDI SEQ.

Non-programmable MIDI-output. This MIDI-output is sending a constant data-output with all (for e.g. a sequencer) required information (data dump).

When using our personal voicing software INTONAT you should use the MIDI SEQ output to send data to the computer. (In fact, a data dump too).

#### 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 MOD. 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 one of the organ's MIDI outputs).

#### 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. 80hm) may give a too loud volume. This can be regulated with the control VOLUME.

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 guints 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, using it to a maximum and avoiding the impossibilities. Because all the half steps are different the chromatical parts of music sound 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 Meantone 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 combinations of stops in presets are fixed. With free combinations you are able to store your choice of stop combination 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 the free combinations 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 capture system exists of the following:

- Kev 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 per division (divisionals) as well as for the entire organ (generals). These registrations can be recalled at any time. The generals as well as the divisionals have eight memory banks to be chosen with the 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 and Intonation 2 cannot be stored in the capture system.

### How to set free combinations

A free combination for e.g. the Great division is programmed as follows:

- 1. First check if the pistons GC and PGM 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 guarter turn to the right. The SET piston will light up to indicate the memory can be accessed.
- 3. Choose the registration for the Great division 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 the + piston until the display shows the correct memory bank (in this example M6).

Vol:12 Tune:440 Mem: 6 Trans: 0 Crescendo:Off

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

> Mem: P6 Vol: 12 Tune: 440 Trans: 0 Crescendo: Off

- 6. First release the piston for the memory number (in this example number 3) and then the SET piston. After releasing the SET piston the letter P will disappear in the display.
- 7. Close the memory by turning the key switch MEMORY LOCK a quarter turn to the left and eventually remove 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. M6-3GR) in your music paper where you want to use it.

The personal registration now has been stored in memory bank 6 in number 3 of the great division.

### **Recalling free combinations**

To recalling 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. M2-3SW).
- 2. Choose the memory bank with the and the + pistons (e.g. M2). The memory bank shows up in the display.

```
Mem:
         V o 1 : 1 2
                    Tune: 440
      2
             Crescendo: Off
         0
Trans:
```

3. Then choose the memory number (push e.g. piston 3 of the swell division).

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 in 20 steps 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 with the 0 pistons. Within a stop combinations 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 exists of the following:

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

When the general crescendo is not switched on the display will show the text Off.

Mem: 1 Vol:12 Tune: 440Trans: 0 Crescendo: Off

To use the general crescendo the piston GC must be pushed. The display now shows until which step the general crescendo has been switched on.

> Mem: 1 Vol:12 Tune:440 Crescendo: I 2 Trans: 0



## 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 piston will light up to indicate the memory can be accessed.
- 2. Push the pistons GC and PGM. 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.

 Choose the level of the general crescendo you want to change by pushing one 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.
- 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.

Mem: P6 Vol: I2 Tune: 440 Trans: 0 Crescendo: 5

- 6. Close the general crescendo memory by turning the key switch MEMORY LOCK a quarter turn to the left and eventually 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 PGM 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 PGM. 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. Push one of the 0 pistons (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 and eventually remove 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 PGM 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 with 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 tells e.g. which key is played.

Midi exists of the following parts:

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

The MIDI stops have a number. The MIDI number for Great on the Rembrandt 200/2000 is number 1 and with Rembrandt 300/3000 the MIDI Great is number 2. This number indicates the MIDI channel used to transfer key information through MIDI SEQ. when playing the Great. MIDI has at least 16 channels 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 expander modules to your organ. One you want to play from the Great, the other from the Swell and the third one from the Pedal.

The following has to be done:

- 1. Connect the expander modules with the MIDI cables (DIN).
- Switch on MIDI stop Great 1. The expander module must be configured so that it can only receive data through the channel programmed to MIDI stop Great 1 (see under "Programmable MIDI").
- 3. Switch on MIDI stop Swell 2. Set the second expander module for the channel programmed to MIDI stop Swell 2.
- 4. Switch on the MIDI stop Pedal 3. Set the third expander module for the channel programmed to MIDI stop Pedal 3.

## **Programmable MIDI**

Programmable MIDI allows you to access an expander module voice/patch (1-128) through one of the channels (1-16) by switching on a MIDI stop. (MIDI Great 1; MIDI Swell 2; MIDI Pedal 3 etc.).

E.g. when the MIDI stop MIDI Great 1 is programmed to expander module voice/patch number 7, channel 15, and MIDI stop Great 1 is switched on, the key data will be transferred through channel 15 and expander module voice/patch 7 can be heard when playing.

The memory is protected so that it can not be erased when you switch off the organ or when you unplug the organ from the main power.

## **Program MIDI manually**

Items to programming the MIDI stops are:

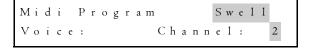
- Key switch MEMORY LOCK
- Thumb pistons and +
- Display
- Piston SET
- Piston PGM
- MIDI-stops

A MIDI stop can be programmed as follows:

- 1. First push one of the 0 pistons or one of the preset pistons. This to be sure that you don't change a MIDI stop that was already programmed in the capture.
- 2. Also check if the GC is not switched on. This to be sure that you don't change a general cresendo level.
- 3. Make the memory accessable by turning the MEMORY LOCK a quarter turn to the right. The SET piston will light up to indicate the memory can be accessed.
- 4. Push the PGM piston. The display will show the following text:

```
Midi Program
Voice: Channel:
```

5. Switch on the MIDI stop you want to program (e.g. Swell 2). The display will show which MIDI stop is switched on and the current channel.



6. Choose, by pushing one or more times on the - or the + piston, the channel you want to assign to the MIDI stop. The channel (1 thru 16) will show up in the display.

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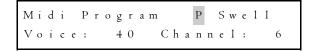
7. Push SET when you selected the right channel (e.g. channel 6). The selected channel has been assigned now to the MIDI stop.

The display now will show the existing module voice too.

8. Choose, by pushing one or more times on the - or the + piston, the module voice you want to assign to the MIDI stop. The module voice (e.g. 40) will show up in the display.

```
Program
Midi
                    Swe11
         4 0
              Channel:
Voice:
                          6
```

9. Push SET when you selected the right module voice (e.g. patch 40). To indicate that the selected channel and module voice are being programmed a P will show up in the display as long as you push SET.



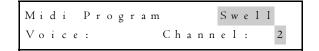
- 10. The MIDI stop MIDI Swell 2 now has been programmed with channel 6, module voice 40. This means that switching on MIDI Swell 2 while playing the swell, key data will be transferred over channel 6 to the module and that module voice 40 will be switched on.
- 11. Close the memory by turning the key switch MEMORY LOCK a quarter turn to the left and eventually remove the key from the switch. The light in the SET piston will go off to indicate that the memory is not accessable anymore.
- 12. Switch off the PGM by pushing it again.

## Program MIDI into capture system

In fact this means storing a module voice into the capture system of the organ, possibly in combination with some other normal organ voices.

- A MIDI-stop can be programmed in the memory as follows:
- 1. Check if the GC is not switched on. This to be sure that you don't change a general cresendo level.
- 2. Make the memory accessable 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. Switch on the MIDI-stop that has to be programmed (E.g. MIDI Swell 2) together (when desired) with other stops that you want to store into the capture system.

- 4. First store this registration in the chosen free combination (see under "Using free combinations). This can be a free combination from the generals as from the divisionals.
  - Note: 1. If you don't store the chosen module registration in the capture memory first, the programmed manual registration of this MIDI stop will be changed unintentionally.
    - 2. Concerning the divisionals (separates) you can only program MIDI-stops into the accompanying divisions. For example, you can only program MIDI Swell 2 into the Swell divisionals and not into e.g. Great divisionals.
- 5. Push the PGM piston. The display will show which MIDI stop you switched on including the channel.



- 6. Choose, by pushing one or more times on the or the + piston, the channel you want to assign to the MIDI stop. The channel (1 thru 16) will show up in the display.
- 7. Push SET when you selected the right channel (e.g. channel 7). The selected channel has been assigned now to the MIDI stop.

The display now will show the existing module voice too.

```
Midi Program
                  Swell
         1
            Channel: 7
Voice:
```

8. Choose, by pushing one or more times on the - or the + piston, the module voice you want to assign to the MIDI stop. The module voice (e.g. 41) will show up in the display.

> Swe 1 1 Midi Program 4 1 Voice: Channel: 7

9. Push SET when you selected the right module voice (e.g. patch 41). To indicate that the selected channel and module voice are being programmed a P will show up in the display as long as you push SET.

- 10. The MIDI stop MIDI Swell 2 now has been programmed with channel 7, module voice 41. This means that recalling the concerning free combination the key data from the Swell is transmitted through channel 7 to the external module while module voice (patch) 41 is switched on.
- 11. Close the memory by turning the key switch MEMORY LOCK a guarter turn to the left and eventually remove the key from the switch. The light in the SET piston will go off to indicate that the memory is not accessable anymore.
- 12. Switch off the PGM by pushing it again.

Using the capture system you can assign one MIDI-stop to serveral channels/module voice (patches). E.g. a Rembrandt 300 with expanded capture system may have 129 different

settings per MIDI stop. (1x manual setting, 64 general settings and 64 separate settings). The entire organ can handle  $4 \times 129 = 516$  different settings.

When programming more than one MIDI stop (with or without a combination with normal organ voices) in one free combination you should start with the lowest numbered MIDI stop.

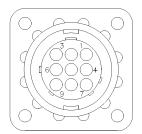
Program e.g. MIDI-Great 1, MIDI Swell 2 and MIDI Pedal 3 in one free combinaiton as follows:

- 1. Switch on the three MIDI switches (upon wish including other organ stops).
- 2. First store this registration into the free combination of your choice. (see under 'Using free combinations').
- 3. Push the PGM piston.
- 4. Choose the channel for MIDI Great 1 (the MIDI with the lowest number) by using the and + pistons.
- 5. Push the SET piston.
- 6. Choose the module voice (patch) for MIDI Great 1 by using the and + pistons.
- 7. Push the SET piston. The setting for MIDI Great 1 is programmed now.
- 8. Switch off the MIDI Great 1 stop.
- 9. Choose the channel for MIDI Swell 2 (now the MIDI with the lowest number) by using the - and + pistons.
- 10. Push the SET piston.
- 11. Choose the module voice (patch) for MIDI Swell 2 by using the and + pistons.
- 12. Push the SET piston. The setting for MIDI Swell 2 is programmed now.
- 13. Switch off the MIDI Swell 2 stop.
- 14. Choose the channel for MIDI Pedal 3 (now the MIDI with the lowest number) by using the - and + pistons.
- 15. Push the SET piston.
- 16. Choose the module voice (patch) for MIDI Pedal 3 by using the and + pistons.
- 17. Push the SET piston. The setting for MIDI Pedal 3 is programmed now.
- 18. Switch off PGM.

## **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. Depending on the choosen amplifier configuration, there can be a 3-position switch on the instrument too.

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



		1
Number	Channel	Organ model
LS1-1	Ground (–) ch. 1	Rembrandt
LS1-2	Signal (+) ch. 1	200, 300, 2000, 3000
LS1-3	Ground (–) ch. 2	Rembrandt
LS1-4	Signal (+) ch.l 2	200, 300, 2000, 3000
LS1-5	Ground (–) ch. 3	Rembrandt
LS1-6	Signal (+) ch. 3	200, 300, 2000, 3000
LS1-7	Ground (–) ch. 4	Rembrandt
LS1-8	Signal (+) ch. 4	200, 300, 2000, 3000
LS2-1	Ground (–) ch. 5	Rembrandt
LS2-2	Signal (+) ch. 5	200, 300, 2000, 3000
LS2-3	Ground (–) ch. 6	Rembrandt
LS2-4	Signal (+) ch. 6	2000, 3000
LS2-5	Ground (–) ch. 7	Rembrandt
LS2-6	Signal (+) ch. 7	2000, 3000
LS2-7	Ground (–) ch. 8	Rembrandt
LS2-8	Signal (+) ch. 8	3000



## **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 than the woodwork. Little scratches that may originate from playing can be removed with car polish. NEVER try to remove spots with agressive liquors like thinner, aceton 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**

	Rembrandt 200 AGO	Rembrandt 300 AGO	Rembrandt 2000 AGO	Rembrandt 3000 AGO
Voices:				
Romantic	33	43	49	63
Baroque	33	43	49	63
Keyboards (churchorgan touch):				
5 octaves (C-c''') synthetic	2	3	2	3
5 octaves (C-c''') wood	option	option	option	option
Channels (100 Watt max. 8Ω each)	5	5	7	8
Acoustics				
Ajustable volume	• 3	• 3	• 3	• 3
Programs (length)	-	-	-	-
Transposer (+/- 3 half steps, programmable)	•	•	•	•
Pitch (426-454Hz = $+/- \frac{1}{4}$ tone, programmalbe)	•	•	•	٠
Fixed combinations (Presets) PP-P-MF-F-FF-T	•	•	•	٠
Capture system				
Generals	64	64	64	64
Divisionals	192	256	192	256
MIDI-tabs (programmable)	3	4	3	4
General volume (MIDI controlled, programmable)	•	٠	٠	•
Expression pedals (MIDI controlled)	2	3	2	3
General Crescendo (20 steps programmalbe)	٠	٠	•	٠
3-position switch for external loudpseakers	option	option	option	option
Toe studs	12	15	12	15
Pedal: 32 note AGO (C-g')	•	•	•	•
Acessories:				
Couplers	3	6	3	6
Tremulants Chorus	3	4	3	4
MB = Manual Bass	•	•	•	•
CF = Cantus Firmus	•	•	•	•
FA = Fix Accessories	•	•	•	•
RO = Reeds off	•	•	•	•
0 = Cancel S/S =All swells to swell	option	option	option	option
Temperaments:		-		
Equal	•	•	•	•
Werckmeister III	•	•	•	•
Meantone	•	•	•	•
External connections:				
MIDI In-Mod-Seq	•	•	•	•
Headphone Stereo up to $2k\Omega$ External Reverb 470 $\Omega$ /300mV	•	•	•	•
Aux In1k $\Omega$ /70mV (stereo)	•	•	•	•
Aux Out $470\Omega/300$ mV (stereo)	•	•	•	•
Loudspeaker Outputs $8\Omega$	•	•	•	•

## **Technical specifications Cabinet**

	Rembrandt 200 AGO	Rembrandt 300 AGO		Rembrandt 3000 AGO
Furniture:		-		
Dark Oak or Light Oak Other colors or kinds of wood	option	option	option	option
Solid wooden panels	e		e	e
Wooden roll cover	•	•	•	•
Wooden expression pedals	•	٠	٠	•
Pedal lights	•	•	•	•
Bench with storage space	•	•	•	•
Bench with lid	option	option	option	option
Bench with adjustable height	option	option	option	option
Dimensions:				
Height (without musicrack)	123 cm	123 cm	135 cm	135 cm
Height (with musicrack)	145 cm	145 cm	157 cm	157 cm
Width	145 cm	145 cm	165 cm	165 cm
Depth (without pedalboard)	75 cm	75 cm	75 cm	75 cm
Depth (with 32 note AGO pedal)	100 cm	100 cm	100 cm	100 cm



## **MIDI Implementation charts**

JOHANNUS Organ REMBRANDT 200 AGO

#### **MIDI** Implementation Chart

Date: July 1998 Version 1.00

	Functions	Transmitted	Recognized	Remarks				
Basic Channel	Default Changes	1, 2, 3, 12 1 - 16 <sup>1</sup>	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	d	Ν	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 - 127 <sup>1</sup> * * * * * * * * *	0 - 84 <sup>2</sup> 0 - 84 <sup>2</sup>	0 - 7         Stops Pedal           8 - 18         Stops Swell           41 - 50         Stops Great           64 - 73         Accessories           80 - 82         Sp. Stops Sw.           83 - 84         Sp. Stops Gr.				
System Ex	clusive	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		<sup>1</sup> By means of the programmable MIDI-stops <sup>2</sup> Except 19-40, 51-63 and 74-79						

Mode 3: OMNY OFF, POLY Mode 4: OMNY OFF, MONO

N = NO

#### JOHANNUS Organ REMBRANDT 300 AGO

#### **MIDI Implementation Chart**

Date: July 1998 Version 1.00

	Functions	Transmitted	Recognized	Remarks
Basic Channel	Default Changes	1, 2, 3, 4, 12 1 - 16 <sup>1</sup>	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	t	Ν	Ν	
Control Change	7 11 100/101/6 100/101/6	Y Y Y Y	Y Y Z Z	General volume Expression pedals Pitch Transposer
Program Change	:True#	0 - 127 <sup>1</sup> * * * * * * * * *	0 - 95 <sup>2</sup> 0 - 95 <sup>2</sup>	<ul> <li>0 - 7 Stops Pedal</li> <li>8 - 18 Stops Swell</li> <li>32 - 39 Stops Choir</li> <li>41 - 50 Stops Great</li> <li>64 - 78 Accessories</li> <li>88 - 89 Sp. Stops Sw.</li> <li>91 - 93 Sp. Stops Gr.</li> <li>94 - 95 Sp. Stops Ch.</li> </ul>
System Ex	clusive	Y	Y	All stops off
Common	:Song Pos :Song Sel :Tune	Z Z Z	Z Z Z	
System Real Time	:Clock :Commands	N N	N N	
Aux	:Reset All Controller :Local On/OFF :All Notes OFF :Active Sense :Reset	2 Z Z Z Z	Z Z Y Z Z	
Notes		<sup>1</sup> By means of the pr <sup>2</sup> Except 19-31, 40,	ogrammable MIDI-stc 51-63, 79-87 and 90	ops

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

# JOHANNUS Organ REMBRANDT 2000 AGO

#### **MIDI Implementation Chart**

Date: July 1998 Version 1.00

	Functions	Transmitted	Recognized	Remarks
Basic Channel	Default Changes	1, 2, 3, 4, 12 1 - 16 <sup>1</sup>	1, 2, 3, 4, 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	ł	Ν	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 - 127 <sup>2</sup> * * * * * * * * *	0 - 92 <sup>2</sup> 0 - 92 <sup>2</sup>	1 - 12         Stops Pedal           15 - 31         Stops Swell           48 - 63         Stops Great           64 - 73         Accessories           88 - 90         Sp. Stops Sw.           91 - 92         Sp. Stops Gr.
System Ex	clusive	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		<sup>1</sup> By means of the pr <sup>2</sup> Except 13-14, 32-4	ogrammable MIDI-sto 7 and 74-87	ops

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

#### JOHANNUS Organ REMBRANDT 3000 AGO

#### **MIDI Implementation Chart**

Date: July 1998 Version 1.00

	Functions	Transmitted	Recognized	Remarks
Basic Channel	Default Changes	1, 2, 3, 4, 12 1 - 16 <sup>1</sup>	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 N	
Pitch Bend	k	Ν	Ν	
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 - 127 <sup>1</sup> * * * * * * * * *	0 - 95 <sup>2</sup> 0 - 95 <sup>2</sup>	1 - 12         Stops Pedal           15 - 31         Stops Swell           32 - 44         Stops Choir           49 - 63         Stops Great           64 - 78         Accessories           89 - 90         Sp. Stops Sw.           91 - 93         Sp. Stops Gr.           94 - 95         Sp. Stops Ch.
System Ex	clusive	Y	Y	All stops off
Common	:Song Pos :Song Sel :Tune	Z Z Z	Z Z Z	
System Real Time	:Clock :Commands	N N	N N	
Aux	:Reset All Controller :Local On/OFF :All Notes OFF :Active Sense :Reset	Z Z Z Z	Z Z Y Z Z	
Notes		<sup>1</sup> By means of the pr <sup>2</sup> Except 13-14, 45-4	ogrammable MIDI-sto 8 and 79-88	ops

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

## **Registration examples**

### Registration examples Rembrandt 200 AGO

									reat	Swell				
									Solo on Great	u	<del>~</del>	2	Romantic	Ę
		ddd	dd	đ	mf	Ŧ	Ħ	t	Solo	Solo	, Trio	Trio 2	Rom	Plenum
PEDAL														
Contra Violin	32'	0	0	0	0	0	0	0	0	0	0	0	0	0
Diapason	16'	0	0	0	0	0	•	•	0	0	0	0	0	•
Subbass	16'	•	•	•	•	•	•	•	•	•	•	•	•	•
Octave	8'	0	0	0	0	•	•	•	0	0	•	•	0	•
Gedackt	<b>8'</b> O	0	•	•	•	•	•	•	•	0	0	•	0	_
Choralbass	4'	0	0	0	0	0	•	•	0	0	0	0	0	•
Contra Trumpet	16'	0	0	0	0	0	0	•	0	0	0	0	0	0
Trumpet	8'	0	0	0	0	0	0	•	0	0	0	0	0	0
SWELL														
Open Diapason	8'	0	0	0	0	0	•	٠	0	0	0	0	0	•
Stopped Flute	8'	0	•	•	•	•	•	•	•	•	•	•	•	0
Viola di Gamba	8'	•	•	•	•	0	•	•	•	0	0	0	•	0
Vox Celeste	8'	0	•	•	0	0	0	0	0	0	0	0	•	0
Octave	4'	0	0	0	0	0	•	•	0	0	0	0	0	•
Koppelflute	4'	0	0	•	•	•	•	•	•	•	•	0	0	0
Flute Twelfth	2 <sup>2</sup> /3'	0	0	0	0	0	•	•	0	•	0	0	0	0
Waldflute	2'	0	0	0	0	•	•	•	0	•	0	•	0	0
Tierce	1 <sup>3</sup> /5'	0	0	0	0	0	0	0	0	•	•	0	0	0
Scharff	III	0	0	0	0	0	0	•	0	0	0	0	0	•
Oboe	8'	0	0	0	0	0	•	•	0	0	0	0	0	0
GREAT														
Bourdon	16' O	0	0	0	0	•	•	0	0	0	0	0	0	
Principal	8'	0	0	0	0	0	0	0	0	0	•	•	0	•
Rohrflute	8'	•	•	•	•	•	•	•	•	•	0	0	•	0
Octave	4'	0	0	0	0	•	•	•	0	0	0	0	0	•
Open Flute	4'	0	0	0	•	•	•	•	•	•	0	0	•	0
Twelfth	2 <sup>2</sup> /3'	0	0	0	0	•	•	•	0	0	•	0	0	•
Super Octave	2'	0	0	0	0	0	•	•	0	0	0	•	0	•
Cornet	IV	0	0	0	0	0	0	0	•	0	0	0	0	0
Mixture	IV	0	0	0	0	0	•	•	0	0	0	0	0	•
Trumpet	8'	0	0	0	0	0	0	•	0	0	0	0	0	0
ACCESSORIES														
Swell-Great		•	•	•	•	•	•	•	•	0	0	0	•	٠
Great-Pedal		•	•	•	•	•	٠	•	0	•	•	0	•	•
Swell-Pedal		•	•	•	•	•	•	•	•	0	0	0	•	٠
Tremulant Great		0	0	0	0	0	0	0	•	0	0	0	•	0
Tremulant Swell		0	0	0	0	0	0	0	0	•	•	0	•	0
Chorus		0	0	0	0	0	0	0	0	0	0	0	•	0

## Personal registrations Rembrandt 200 AGO

PEDAL Contra Violin Diapason Subbass Octave Gedackt Choralbass Contra Trumpet Trumpet	32' 16' 16' 8' O 4' 16' 8'				000000000000000000000000000000000000000	00000000	000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000	000000000000000000000000000000000000000	
SWELL Open Diapason Stopped Flute Viola di Gamba Vox Celeste Octave Koppelflute Flute Twelfth Waldflute Tierce Scharff Oboe	8' 8' 8' 4' 2 <sup>2</sup> / <sub>3</sub> ' 2' 1 <sup>3</sup> / <sub>5</sub> ' III 8'		000000000000000000000000000000000000000											
GREAT Bourdon Principal Rohrflute Octave Open Flute Twelfth Super Octave Cornet Mixture Trumpet	16' ○ 8' 4' 4' 2²/₃' 2' IV IV 8'			0 0 0 0 0 0 0 0 0 0										
ACCESSORIES Swell-Great Great-Pedal Swell-Pedal Tremulant Great Tremulant Swell Chorus		0 0 0 0 0												

## Registration examples Rembrandt 300 AGO

					-			at					
								Solo on Great	on Swell			ntic	E
	ddd	dd	٩	mf		Ħ		Solo o	Solo on	Trio 1	Trio 2	Romantic	Plenum
	4	4	4	-	Ŧ	-	1	0)	0,	F			
PEDAL Contra Violin 32'	0	0	0	0	0	0	0	0	0	0	0	0	0
Diapason 16'	0	0	0	0	•	•	•	0	0	0	0	0	•
Subbass 16' Octave 8'	•	•	•	•	•	•	•	•	•	•	0	•	•
Gedackt 8' O	0	•	•	•	•	•	•	•	0	•	•	0	•
Choralbass 4'	0	0	0	0	٠	•	٠	0	0	0	0	0	٠
Contra Trumpet 16' Trumpet 8'	0	0	0	0	0	0	•	0	0	0	0	0	0
	0	0	0	0	0	•	•	0	0	0	0	0	0
SWELL Open Diapason 8'	0	0	0	•	•	•	•	0	0	0	0	0	•
Stopped Flute 8'	0	•	•	•	•	•	•	•	•	•	0	•	0
Viola di Gamba 8' Vox Celeste 8'	•	•	•	•	•	•	•	•	0	0	•	•	0
Octave 4'	0	0	0	•	•	•	•	0	0	0	0	0	•
Koppelflute 4'	0	0	٠	٠	•	•	٠	•	٠	٠	0	٠	0
Flute Twelfth2²/3'Waldflute2'	0	0	0	0	0	•	•	0	0	0	0	•	0
Nasard 1 <sup>1</sup> / <sub>3</sub> '	0	0	0	0	0	0	•	0	0	•	0	0	•
Fagotto 16'	0	0	0	0	0	0	٠	0	0	0	0	0	0
Oboe 8'	0	0	0	0	0	•	•	0	•	0	0	0	0
GREAT													
Bourdon 16' O Principal 8'	0	0	0	•	•	•	0 ●	0 ●	0	0 ●	0 ●	0	•
Rohrflute 8'	•	•	•	•	•	•	•	•	•	0	0	•	0
Octave 4'	0	0	0	•	•	•	•	0	0	0	0	0	•
Open Flute 4' Twelfth 2 <sup>2</sup> / <sub>3</sub> '	0	0	•	•	•	•	•	•	0	0 ●	0	•	0 ●
Super Octave 2'	0	0	0	0	0	•	•	0	0	0	0	0	•
Cornet IV	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixture V Trumpet 8'	0	0	0	0	0	0 ●	•	0 ●	0	0	0	0	•
	U	0	0	0	Ũ	•	•	•	0	Ũ	0	0	0
CHOIR Hohlflute 8'	•	•	•	•	•	•	•	•	•	0	•	•	0
Rohrflute 4'	0	0	•	•	•	•	•	•	•	•	0	•	0
Nasard 2 <sup>2</sup> / <sub>3</sub> '	0	0	0	0	0	•	•	0	0	0	0	0	0
Flute2'Tierce1³/5'	0	0	0	•	•	•	•	0	0	•	0	0	0
Sifflet 1'	0	0	0	0	0	•	•	0	0	0	0	0	0
Mixture III	0	0	0	0	0	•	•	0	0	0	0	0	•
Vox Humama 8'	0	0	0	0	0	0	•	0	0	0	0	0	0
ACCESSORIES Choir-Great	0	0	•	-	•	•	•	0	•	0	0	-	•
Swell-Great	0	•	•	•	•	•	•	•	0	0	0	•	•
Swell-Choir	0	0	•	•	•	•	•	•	0	0	0	•	•
Choir-Pedal Great Redal	0	•	•	•	•	•	•	0	0	0	0	•	•
Great-Pedal Swell-Pedal	0	0	0 ●	•	•		•	0 ●	0 ●	0	0	•	•
Tremulant Choir	0	0	0	0	0	0	0	0	0	0	0	•	0
Tremulant Great	0	0	0	0	0	0	0	•	0	0	0	•	0
Tremulant Swell Chorus	0	0	0	0	0	0	0	0	•	0	0	•	0
	-	-	-	-	-	-	-	-	-	-	-	-	-

## Personal registrations Rembrandt 300 AGO

PEDAL Contra Violin Diapason Subbass Octave Gedackt Choralbass Contra Trumpet Trumpet	32' 16' 16' 8' 0 4' 16' 8'				000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000		000000000000000000000000000000000000000	000000000000000000000000000000000000000	
SWELL Open Diapason Stopped Flute Viola di Gamba Vox Celeste Octave Koppelflute Flute Twelfth Waldflute Nasard Fagotto Oboe	8' 8' 8' 4' 4' 2 <sup>2</sup> /3' 2' 1 <sup>1</sup> /3' 16' 8'	000000000000000000000000000000000000000										
GREAT Bourdon Principal Rohrflute Octave Open Flute Twelfth Super Octave Cornet Mixture Trumpet	16' ○ 8' 8' 4' 2 <sup>2</sup> /3' 2' IV V 8'											
CHOIR Hohlflute Rohrflute Nasard Flute Tierce Sifflet Mixture Vox Humama	8' 4' 2 <sup>2</sup> /3' 2' 1 <sup>3</sup> /5' 1' III 8'		0 0 0 0 0 0						0 0 0 0 0 0			0 0 0 0 0 0
ACCESSORIES Choir-Great Swell-Great Swell-Choir Choir-Pedal Great-Pedal Swell-Pedal Tremulant Choir Tremulant Great Tremulant Swell Chorus		000000000000000000000000000000000000000										

## Registration examples Rembrandt 2000 AGO

								Great	Swell			tic	
	ddd	dd	٩	mf	f	ff	t	Solo on Great	Solo on	Trio 1	Trio 2	Romantic	Plenum
PEDALEcho Bourdon32'Diapason16'Subbass16'Lieblich Gedackt 16'0Octave8'Gedackt8'Gedackt8'Choralbass4'RauschpfeifeIVBombarde32'Contra Trumpet16'Trumpet8'Clarion4'													
SWELLOpen Diapason8'Stopped Flute8'Viola di Gamba8'Vox Celeste8'Octave4'Koppelflute4'Flute Twelfth2²/s'Octave2'Waldflute2'Tierce1³/s'Nasard1¹/s'Octave1'ScharffIIIFagotto16'Cornopean8'Oboe8'Clarion4'													
GREATBourdon16'Principal8'Rohrflute8'Ilute Celeste8'Quintadena8'Gamba8'Octave4'Open Flute4'Twelfth2²/3'Octave2'Blockflute2'CornetIVMixtureVIIContra Trumpet8'Vox Humana8'													
ACCESSORIES Swell-Great Great-Pedal Swell-Pedal Tremulant Great Tremulant Swell Chorus												• • • •	

## Personal registrations Rembrandt 2000 AGO

PEDALEcho Bourdon32'Diapason16'Subbass16'Lieblich Gedackt 16'0Octave8'Gedackt8'Choralbass4'RauschpfeifeIVBombarde32'Contra Trumpet16'Trumpet8'Clarion4'							
SWELLOpen Diapason8'Stopped Flute8'Viola di Gamba8'Vox Celeste8'Octave4'Koppelflute4'Flute Twelfth2²/₃'Octave2'Waldflute2'Tierce1³/₅'Nasard1¹/₃'Octave1'ScharffIIIFagotto16'Cornopean8'Oboe8'Clarion4'							
GREATBourdon16'Principal8'Rohrflute8'Flute Celeste8'Quintadena8'Gamba8'Octave4'Open Flute4'Twelfth2²/₃'Octave2'Blockflute2'CornetIVMixtureVIIContra Trumpet16'Trumpet8'Vox Humana8'							
ACCESSORIES Swell-Great Great-Pedal Swell-Pedal Tremulant Great Tremulant Swell Chorus							

Registration	zvanih	les ne	ilipia	nut 5	000 A	90			at	=				
		ddd	dd	đ	mf	f	Ħ	t	Solo on Great	Solo on Swell	Trio 1	Trio 2	Romantic	Plenum
PEDAL Subbass Diapason Subbass Lieblich Gedackt 16' Octave Gedackt 8' Choralbass Rauschpfeife Bombarde Contra Trumpet Trumpet Clarion	32' 16' 16' 8' 4' IV 32' 16' 8' 4'	000000000000000000000000000000000000000								○ ● ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○			○ ● ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	
SWELL Bourdon 16' Open Diapason Stopped Flute Viola di Gamba Vox Celeste Octave Koppetflute Flute Twelfth Octave Waldflute Tierce Nasard Scharff Fagotto Cornopean Oboe Clarion	0 8' 8' 4' 2 <sup>2</sup> /3' 2' 1 <sup>3</sup> /5' 1 <sup>1</sup> /3' 11/3' 11 16' 8' 8' 4'	<ul><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li>&lt;</ul>	0 0 0 <b>●</b> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<ul><li>○</li><li>●</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li>&lt;</ul>								000000000000000000000000000000000000000		
GREAT Open Diapason Principal Rohrflute Flute Celeste Quintadena Gamba Octave Open Flute Twelfth Super Octave Cornet Mixture Contra Trumpet Vox Humana	16' 8' 8' 8' 4' 2 <sup>2</sup> / <sub>3</sub> ' 2' VII 16' 8' 8'	<ul><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li><li>○</li>&lt;</ul>										○ ● ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○		
CHOIR Principal Bourdon 8' Erzähler Erzähler Celeste 8' Octave Rohrflute Nasard Flute Octave Sesquialtera Mixture Krummhorn Festival Trumpet 8'	8' 8' 4' 4' 2'/3' 2' 1' 11 1V 8'	000000000000000000000000000000000000000	000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0				0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
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## Registration examples Rembrandt 3000 AGO

## Personal registrations Rembrandt 3000 AGO

PEDALSubbass32'Diapason16'Subbass16'Lieblich Gedackt 16'0Octave8'Gedackt8'Gedackt8'Choralbass4'RauschpfeifeIVBombarde32'Contra Trumpet16'Trumpet8'Clarion4'	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000 0 000000
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GREATOpen Diapason16'Principal8'Rohrflute8'Flute Celeste8'Quintadena8'Gamba8'Octave4'Open Flute4'Twelfth2²/s'Super Octave2'CornetIVMixtureVIIContra Trumpet16'Trumpet8'Vox Humana8'	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000
CHOIRPrincipal8'Bourdon8'Erzähler8'Erzähler Celeste8'Octave4'Rohrflute4'Nasard2²/₃'Flute2'Octave1'SesquialteraIIMixtureIVKrummhorn8'Festival Trumpet 8'○	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	
ACCESSORIES Choir-Great Swell-Great Swell-Choir Choir-Pedal Great-Pedal Swell-Pedal Tremulant Choir Tremulant Great Tremulant Swell Chorus	000000000000000000000000000000000000000	00000000000	00000000000	000000000000	00000000000	00000000000	000000000000000000000000000000000000000	00000000000	000000000000	00000000000	00000000000	00000000000	0000000000