JOHANNUS



User Manual



Our best selling organ worldwide for 40 years

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CONTENTS

1		SAF	ΈΤΥ5
	1.1	S	afety instructions
	1.2	S	ymbols on the organ
	1.3	S	ymbols in this manual
	1.4	Т	ransport and storage7
	1.5		autions and important notes
	1.6	Р	lacement
	1.7	R	epairs and data
	1.8		dditional precautions
-			
2		-	TALLATION12
	2.1		nstallation and connection
		2.1.	
	2.2		
	2.2	3	witch on
3		DES	SCRIPTION OF THE ORGAN14
	3.1	С	overview of the main components
		3.1.	
		3.1.2	2 Opus 35015
	3.2	С	verview of controls
		3.2.	1 Opus 25016
		3.2.2	2 Opus 35017
	3.3		onnect and switch on the peripherals18
	3.4	E	xternal connections18
4			ERATION19
	4.1	V	olume controls
	4.2	E	xpression pedals
	4.3	Α	daptive Surround Reverb ASR 12 19
	4.4	Ir	ntonations
	4.5	S	tops
	4.6	С	ouplers
	4.7	А	ccessories
	4.8	Р	re-programmed memory locations21
	4.9	С	apture memory:

4.10Transposer224.11Crescendo pedal234.12Quick Access234.12.1Programming mode crescendo pedal23

-			24
5	10	OHANNUS MENU	24
5	.1	Crescendo	
5	.2	Datadump	25
5	.3	Demo Songs	26
5	.4	Display Contrast	26
5	.5	Expression Pedals	
5	.6	Keyboard Config	28
5	.7	Key Volumes	
5	.8	MIDI Config	32
5	.9	Reset Procedures	
5	.10	Reverb Settings	34
5	.11	Startup Settings	
5	.12	Temperaments	37
5	.13	Tuning	38
5		Version	

RANTY39

7	ſ	MIDI IMPLEMENTATIONS	40
	7.1	MIDI Implementation Chart	40
	7.2	MIDI Specifications	41

1 SAFETY

1.1 Safety instructions

- To reduce the risk of fire or electric shock, do not expose the organ to liquids, rain or moisture.
 - Position the organ on a stable, horizontal surface.
- When power cord plug has an earth-pin: Connect the organ to a grounded power socket.
- Turn off the organ when it is not in use.
- Do not place the organ in a damp area.
- Follow the instructions and precautionary measures in this user manual.
- Keep this user manual with the organ.
- The organ may only be opened by a technician authorized by Global Organ Group B.V. The organ contains static-sensitive components. The warranty is void if the organ is opened by a non-authorized person.

NOTICE

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with a dry cloth.
- 7. Do not block any of the ventilation openings.
- Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves,
- or other apparatus (including amplifiers) that produce heat.

9. When power cord plug has an earth-pin: Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

12. Unplug this apparatus during lightning storms or when unused for long periods of time.

13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

1.2 Symbols on the organ



WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

AVERTISSEMENT: POUR RÉDUIRE LE RISQUE D'INCENDIE OU DE CHOC ÉLECTRIQUE, N'EXPOSEZ PAS CET APPAREIL À LA PLUIE OU À L'HUMIDITÉ.



- Laite on liitettävä suojamaadoituskoskettimilla varus ettuun pistorasiaan.
- Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord
- Apparatet må tilkoples jordet stikkontakt.
- Apparaten skall anslutas till jordat uttag.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

CAN ICES-3(B)/NMB-3(B)

仅适用于非热带气候条件下安全使用 仅适用于海拔2000m以下地区安全使用



Warning: The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Warning for static-sensitive components. To prevent damage to electronic parts from static electricity, be sure to discharge any static electricity from your own body before handling / touching the instrument.

1.3 Symbols in this manual



Caution, Warning or important information



Do not, or forbidden to do



1.4 Transport and storage

Pay attention to the following during transport and storage:

- Remove the music desk and the pedal board from the organ, before transport.
- Store in an area with 40% to 60% relative humidity. Do not store in area's e.g. baths, washrooms, on wet floors, expose to steam or smoke, salt, humid, rain, moisture, dusty or sandy locations.
- Minimum temperature within the storage area: 0°C
- Do not expose the Organ to direct sunlight (UV), do not place it near devices that radiate heat, or otherwise subject to temperature extremes. Also, do not allow lighting devices that normally are used while their light source is very close to the Organ (such as a piano light), or powerful spotlights to shine upon the same area of the Organ for extended periods of time. Excessive heat can deform or discolor the Organ.
- Do not allow rubber, vinyl or similar materials to remain on this Organ for long periods of time. Such objects can discolor or otherwise harmfully affect the finish.
- **Do not paste stickers, decals, or the like to this instrument**. Peeling such matter off the instrument may damage and or discolor the exterior finish.
- Do not bend the power cord or place heavy objects on it.
- Don't allow foreign objects or liquids to enter Organ; Never place containers with liquid on Organ; Do not put anything that contains water on this Organ. Also, avoid the use of insecticides, perfumes, alcohol, nail polish, spray cans, etc., near the Organ. Swiftly wipe away any liquid that spills on the Organ using a dry, soft cloth. Never use benzene, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.
- Unplug the power cord from the outlet before cleaning. Before cleaning the Organ, turn it off and unplug the power cord from the outlet. To clean the Organ, use a dry, soft cloth; or one that is slightly dampened. Try to wipe the entire surface using an equal amount of strength, moving the cloth along with the grain of the wood. Rubbing too hard in the same area can damage the finish.
- Do not open. Do not disassemble or modify by yourself
- Avoid climbing on top of the Organ, or placing heavy objects on it, nor on top of the keyboard nor pedal board. This can lead to dangerous situations - such as tilting / tipping over - shearing / falling off of heavy objects. This can also lead to malfunctions - such as keys ceasing to produce sound.
- Do not bend, drop, strong shock or vibration.
- Never strike or apply strong pressure to the display.
- **Cautions when moving this Organ:** Since this product is very heavy, you must make sure that a sufficient number of people are on hand to help, so you can lift and move it safely, without causing strain. Make sure to have a firm grip, to protect yourself from injury and the instrument from damage. If you need to move the instrument, consult with your retailer, or Global Organ Group B.V.















1.5 Cautions and important notes

Indoor use only.

Connect the power cord to an outlet of the correct voltage. The Organ should be connected to a power supply only of the type described as marked under the keyboard deck of Organ.

When power cord plug has an earth-pin: Make sure that the power cord is grounded. Connect mains plug of this model to a mains socket outlet with a protective earthing connection.

Do not connect or disconnect the power cord with wet hands. Never handle the power cord or its plugs with wet hands when plugging into, or unplugging from, an outlet.

Turn off the Organ if an abnormality or malfunction occurs. Immediately turn the Organ off, remove the power cord from the outlet, and request servicing by your retailer, or Global Organ Group B.V., when:

- The power-supply cord or the plug has been damaged; or
- If smoke or unusual odor occurs; or
- Objects have fallen into, or liquid has been spilled onto the Organ; or
- The Organ has been exposed to rain (or otherwise has become wet); or
- The Organ does not appear to operate normally or exhibits a marked change in performance.

Do not use overseas, foreign countries. Before using the Organ in a foreign country, consult with your retailer, or Global Organ Group B.V.

Presence of children. For their safety, adults should make sure that children under the age of 16 use the instrument properly and that the organ is in a stable position. An adult should always be present to supervise and guide any use by a child. Due to the weight of the instrument, it is recommended that it be securely fixed to the wall or floor by a professional to prevent tipping over. This is despite the fact that all safety precautions have been taken to avoid accidents.

Do not connect this Organ to same electrical outlet that is being used by an electrical appliance that is controlled by an inverter or a motor (such as a refrigerator, washing machine, microwave oven, or air conditioner). Depending on the way in which the electrical appliance is used, power supply noise may cause this Organ to malfunction or may produce audible noise. If it is not practical to use a separate electrical outlet, connect a power supply noise filter between this Organ and the electrical outlet.

Do not share an outlet with an unreasonable number of other devices. Do not force the Organ's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through - therefore always completely unwind an extension cord.















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To prevent malfunction and equipment failure, always make sure to turn off the power on all your equipment before you make any connections.

Although the LCD and LEDs are switched off when the Organ is turned off, this does not mean that the Organ has been completely disconnected from the source of power. If you need to turn off the power completely, first turn off the Organ's switch, then unplug the power cord from the power outlet. For this reason, the outlet into which you choose to connect the power cord's plug should be one that is within easy reach and readily accessible.

If there is a possibility of lightning strike, disconnect the power cord from the outlet. Whenever you suspect the possibility of lightning in your area, pull the plug on the power cord out of the outlet.

Periodically clean the power cord's plug. At regular intervals, you should unplug the power plug and clean it by using a dry cloth to wipe all dust and other accumulations away from its prongs. Also, disconnect the power plug from the power outlet whenever the Organ is to remain unused for an extended period of time. Any accumulation of dust between the power plug and the power outlet can result in poor insulation and lead to fire.

The settings you were editing will be lost when the Organ is turned off. If you want to keep your settings, you must save your settings before turning the Organ off.

Place in a well ventilated location. The Organ should be located so that its location or position does not interfere with its proper ventilation.

Manage cables for safety. Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children.

Grasp the plug when connecting or disconnecting the power cord. Always grasp only the plug on the power-supply cord when plugging into, or unplugging from, an outlet.

Precautions concerning use of bench. When using the bench, please observe the following points:

- Do not allow two or more persons to sit on the bench.
- Do not adjust the height while sitting on the bench.

Do not remove the speaker grille and speaker. Do not remove the speaker grille and speaker by any means. Speaker not user replaceable. Shock hazardous voltages and currents are present inside the enclosure.

Disconnecting power from AC mains. To completely disconnect this apparatus from the AC mains, disconnect the power supply cord plug from the AC receptacle.

The power supply cord and/or main power switch must be accessible. The mains plug of the power supply cord shall remain readily accessible. Or, the power switch must be accessible. The main power switch is the main power disconnect device for this Organ. Therefore, the power switch shall be readily accessible.

Do not use internal connections. Do connect, do not use internal connections for optional external speakers by yourself. Refer all servicing to your retailer, or Global Organ Group B.V.















1.6 Placement

- Using the Organ near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this Organ; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.
- Noise may be produced if wireless communications devices, such as cell phones, are
 operated in the vicinity of this Organ. Such noise could occur when receiving or
 initiating a call, or while conversing. Should you experience such problems, you should
 relocate such wireless devices so they are at a greater distance from this Organ, or
 switch them off.
- **Do not expose the Organ to direct sunlight**, place it near devices that radiate heat, or otherwise subject it to temperature extremes. Also, do not allow lighting devices that normally are used while their light source is very close to the Organ (such as a piano light), or powerful spotlights to shine upon the same area of the Organ for extended periods of time. Excessive heat can deform or discolor the Organ.
- Do not allow rubber, vinyl, or similar materials to remain on this Organ for long periods of time. Such objects can discolor or otherwise harmfully affect the finish.
- **Do not allow objects to remain on top of the keyboard or pedal board**. This can be the cause of malfunction, such as keys ceasing to produce sound.
- **Do not paste stickers, decals, or the like to this instrument.** Peeling such matter off the instrument may damage the exterior finish.
- **Do not put anything that contains water on this Organ.** Also, avoid the use of insecticides, perfumes, alcohol, nail polish, spray cans, etc., near the Organ. Swiftly wipe away any liquid that spills on the Organ using a dry, soft cloth.
- Due to the weight of the instrument, it is recommended to attach the instrument securely to the wall or floor by a professional, to avoid tipping. This, although all safety measures have been taken to avoid any accident.

1.7 Repairs and data

Please be aware that all data contained in the Organ's memory may be lost when the Organ is sent for repairs. Important data should always be stored, written down on paper (when possible).

During repairs, due care is taken to avoid the loss of data. However, in certain cases (such as when circuitry related to memory itself is out of order), we regret that it may not be possible to restore the data, and Global Organ Group B.V. assumes no liability concerning such loss of data. Refer all servicing to your retailer, or Global Organ Group B.V.





1.8 Additional precautions

- Please be aware that the contents of memory can be irretrievably lost as a result of a malfunction, or the improper operation of the Organ. To protect yourself against the risk of losing important data, we recommend that you periodically write down important setting data (when possible).
- Unfortunately, it may be impossible to restore the contents of data that was stored in the Organ's memory once it has been lost. Global Organ Group B.V. assumes no liability concerning such loss of data.
- Use a reasonable amount of care when using the Organ's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.
- Never strike or apply strong pressure to the display.
- A small amount of heat will radiate from the Organ during normal operation.
- To prevent possible hearing damage, do not listen at high volume levels for long periods. This Organ, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level, or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should immediately stop using the Organ, and consult an audiologist.
- To avoid disturbing others nearby, try to keep the Organ's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you.
- When you need to transport the Organ, pack it in shock-absorbent material. Transporting the Organ without doing so can cause it to become scratched or damaged, and could lead to malfunction.
- Do not apply undue force to the music stand while it is in use.
- Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this Organ. The use of such cables can cause the sound level to be extremely low, or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.
- Due to the structural design of this instrument, small pets or other animals could end up getting trapped inside it. If such a situation is encountered, you must immediately turn off the Organ and disconnect the power cord from the outlet. You should then consult with the retailer from whom the instrument was purchased, or contact Global Organ Group B.V.
- The explanations in this manual include illustrations that depict what should typically be shown by the display.

Note, however, that your Organ may incorporate a newer, enhanced version of the system (e.g., includes newer sounds), so what you actually see in the display may not always match what appears in the manual.









2 INSTALLATION

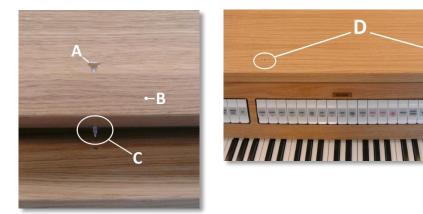
2.1 Installation and connection

2.1.1 Installation organ



- Shown model: Opus 250
- 1. Position the organ on a stable, horizontal surface.
- 2. Install the music desk (A) on top of the organ, see § 2.1.2.
- 3. Lean the organ slightly backward.
- 4. Slide the pedal board (D) against the organ.
- 5. Set the organ upright.
- 6. Place the organ bench (C) over het pedal board.
- 7. Make sure the voltage of the organ matches the voltage of the main. See the serial plate (B).
- 8. When power cord plug has an earth-pin: Connect the organ to a grounded power socket.

2.1.2 Installation music desk



- 1. Turn countersunk brass screws (A) into music desk slat (B) by hand till screws stick out 2 mm (C).
- 2. Place music desk at the right position, with screw points into the pre-drilled holes (D).
- 3. Tight music desk with screw driver. The use of an electric screw driver is not recommended.

2.2 Switch on

Switch on the organ with the on/off piston at the right, next to the manuals. Wait several seconds. Starting the control functions and the settings will take some time.

The lamps of the 0 piston and the as standard set functions light up. The settings appear on the display.

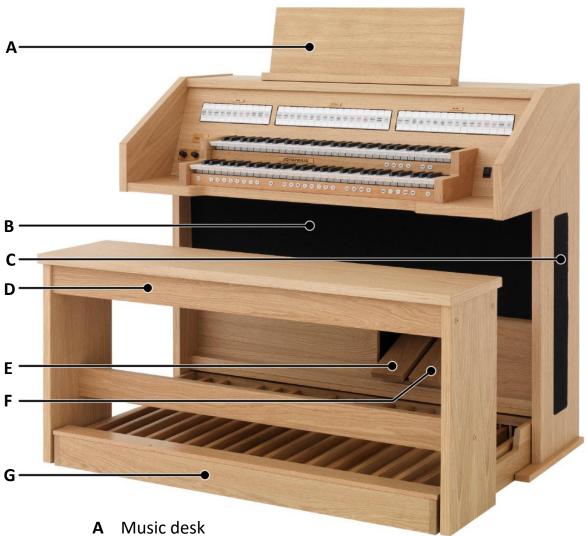
Initializing... Please wait

Opus 250 Mem: 1 Tr: 0/440 Cr:--

3 **DESCRIPTION OF THE ORGAN**

3.1 Overview of the main components

3.1.1 Opus 250



- Loudspeakers В
- **C** Surround loudspeakers
- **D** Organ bench
- Swell pedal Ε
- Crescendo pedal F
- **G** Pedal board

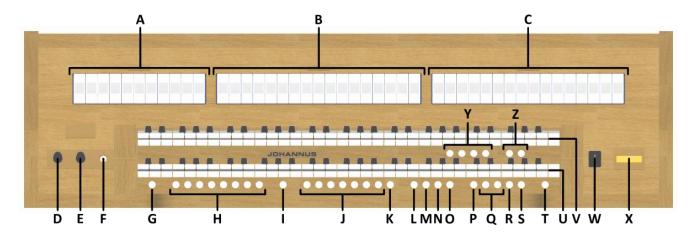
3.1.2 Opus 350



- **C** Surround loudspeakers
- **D** Organ bench
- E Swell pedal
- F Crescendo pedal
- G Pedal board

3.2 Overview of controls

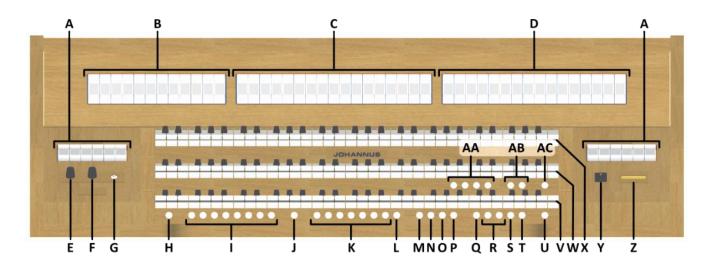
3.2.1 Opus 250



- A Pedal stops, § 4.5
- B Great stops, § 4.5
- C Swell stops, § 4.5
- D Volume control Organ, § 4.1
- E Volume control Cathedral, § 4.1
- F Phones, § 3.4
- **G** SET (programming capture), § 4.9
- H Capture memory locations, § 4.9
- I CH: Chorus, § 4.7
- J Pre-programmed memory locations, § 4.8
- K RO: Reeds Off, § 4.7
- L S/S: All Swells to Swell, § 4.7
- M CR: Crescendo, § 4.11

- N MB: Manual Bass, § 4.6
- **O** CF: Cantus Firmus, § 4.6
- P TRANS.: Transposer, § 4.10
- **Q** and + pistons, § 5
- **R** ENTER, § 5
- **S** MENU, § 5
- T 0: Recall / Reset, § 4.7
- U Manual Great
- V Manual Swell
- W On/Off pistons, § 2.2
- X Display, § 5
- Y Intonation styles, § 4.4
- Z Intonation variations, § 4.4

3.2.2 Opus 350



- A Pedal stops, § 4.5
- B Positif stops, § 4.5
- C Great stops, § 4.5
- D Swell stops, § 4.5
- E Volume control Organ, § 4.1
- F Volume control Cathedral, § 4.1
- **G** Phones, § 3.4
- H SET (programming capture), § 4.9
- I Capture memory locations, § 4.9
- J CH: Chorus, § 4.7
- K Pre-programmed memory locations, § 4.8
- L RO: Reeds Off, § 4.7
- M S/S: All Swells to Swell, § 4.7
- N CR: Crescendo, § 4.11
- O MB: Manual Bass, § 4.6

- P CF: Cantus Firmus, § 4.6
- **Q** TRANS.: Transposer, § 4.10
- **R** and + pistons, § 5
- S ENTER, § 5
- **T** MENU, § 5
- U 0: Recall / Reset, § 4.7
- V Manual Positif
- W Manual Great
- X Manual Swell
- Y On/Off pistons, § 2.2
- Z Display, § 5
- AA Intonation styles, § 4.4
- AB Intonation variations, § 4.4
- AC KT: Keyboard Transfer, § 4.7

3.3 Connect and switch on the peripherals

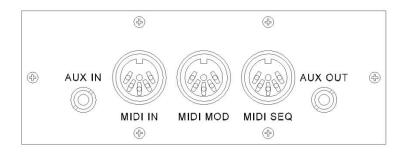
You can connect accessories (for example, a MIDI device) to the organ.

Follow the instructions provided in the documentation for the accessory.

- 1. Switch off the organ and the accessory.
- 2. Connect the accessory to the organ.
- 3. Switch on the accessory.
- 4. Switch on the organ

3.4 External connections

The external connections are on the left under the console.



MIDI IN: An input for receiving MIDI codes from other devices.

MIDI MOD: A programmable MIDI output for connecting a sound module or expander, for example.

MIDI SEQ: A non-programmable MIDI output for connecting a Johannus Sequencer+ or PC (with the optional Johannus Intonat program), for example.

AUX IN: A stereo audio input for playing the sound of an external device through the amplifiers of the organ. For example, an expander connected to the organ through the MIDI MOD can be played through the instrument's loudspeakers.

AUX OUT: A stereo audio output for connecting an external device (amplifier or recording device, for example).

Phones:

The phones connection is at the left next to the manuals. This connection for a (stereo) headphone is suited for a headphone with an impedance of 30 Ω or more (see headphone specifications).



When the headphone is used, the loudspeakers of the organ are switched off automatically.

4 OPERATION

4.1 Volume controls

Organ: You can adjust the volume of the organ with the ORGAN volume control.

Cathedral: The reverb volume can be adjusted smoothly with the CATHEDRAL volume control.

4.2 Expression pedals

The organ has two expression pedals. One is configured as a swell pedal for the Swell, and one is configured as a crescendo pedal. With use of the Johannus Menu, the function of the expression pedals can be changed, see § 5.5 Expression Pedals.

Using an expression pedal which is set as a swell pedal will next to the volume also changes the timbre of the stops. By this the effect of the swell box shutters of a pipe organ is simulated.

4.3 Adaptive Surround Reverb ASR 12

The ASR 12 reverb system produces a digital acoustic effect. This effect provides a spatial reproduction of the organ sound that can be adjusted continuously.

Turn the volume control CATHEDRAL to adjust the reverb volume.

The reverb length can be set using the Johannus Menu. See § 5.10 Reverb Settings. The length can be set for each intonation style.

The following 12 reverb types can be selected for each intonation style in the Johannus Menu:

- Abbey Church
- Basilica
- City Cathedral
- Concert Hall
- Hill Church
- Marble Church
- Marble Room
- Music Room
- Palace Hall
- Royal Auditorium
- Town Church
- Village Chapel

See § 5.10 Reverb Settings for assigning a reverb to an intonation style.

4.4 Intonations

The organ has 12 intonations, divided in four styles: Romantic (ROM), Symphonic (SYM), Baroque (BAR) and Historic (HIS) and three variation per style: Standard, Solo (SOLO) and Trio (TRIO).

Select an intonation style by pressing the ROM, SYM, BAR or HIS piston. Select an intonation variation by pressing the SOLO or TRIO piston. If no variation piston is selected, Standard is selected automatically.

4.5 Stops

The stops are activated via stop switches, pre-programmed memory locations, capture memory locations or the crescendo pedal. The lamp in the stop switch lights when the associated stop is active.

The stops are divided into three groups: **Pedal:** Activates the stops associated with the Pedal. **Positif:** Activates the stops associated with the Positif (*Opus 350 only*). **Great:** Activates the stops associated with the Great. **Swell:** Activates the stops associated with the Swell.

4.6 Couplers

Manual couplers:

POSITIF - GREAT (Opus 350 only): Fully couples all keys of the Positif to the Great. SWELL - GREAT: Fully couples all keys of the Swell to the Great. SWELL - POSITIF (Opus 350 only): Fully couples all keys of the Swell to the Positif.

Pedal couplers:

POSITIF - PEDAL (Opus 350 only): Fully couples all keys of the Positif to the Pedal. GREAT - PEDAL: Fully couples all keys of the Great to the Pedal. SWELL - PEDAL: Fully couples all keys of the Swell to the Pedal.

Manual Bass (MB):

Couples the Pedal monophonic to the Great. Only the lowest key that is played on the Great is coupled from the Pedal to the Great.

If only the lowest key of a chord is released, the pedal key activated by the Manual Bass function is dropped until a new lowest key is played. Activate the Manual Bass with the MB piston.

(A)

It is advisable not to use the Manual Bass while playing the pedal board to avoid double bass tones.

Cantus Firmus (CF):

Cantus firmus: Latin for 'fixed voice' or in organs 'solo voice' or 'melody coupler'. Couples the Swell monophonic to the Great. Only the highest key that is played on the Great is coupled from the Swell to the Great.

With use of a solo registration on the Swell in this way a solo is heard while playing only on the Great.

If only the highest key of a chord is released, the key activated by the Cantus Firmus function is dropped until a new highest key is played. Activate the Cantus Firmus with the CF piston.

It is advisable not to use the Cantus Firmus in combination with the coupler SWELL - GREAT because this overrules the solo function of the Cantus Firmus.

4.7 Accessories

CH: Chorus

Chorus is a function for lightly detuning the organ stops to give it a broader and livelier sound. Use the CH piston to activate the Chorus.

RO: Reeds Off

Reeds off is a function to switch off all reed stops simultaneously. As long as this piston is pressed, no reed stops can be activated. When this function is switched off, the reed stops that were on are activated again. Use the RO piston to activate the Reeds Off function.

S/S: All swells to swell

All Swells to Swell transforms the swell pedal for the Swell to a swell pedal for the whole organ.

If no expression pedal is configured as a swell pedal for the Swell, the S/S piston cannot be activated.

0: Recall / Reset function

The 0 piston cancels registration in two ways:

- 1. A short press on the 0 piston: Only the last change is cancelled.
- 2. A long press on the 0 piston: All registrations are cancelled.

KT: Keyboard Transfer (Opus 350 only):

Keyboard Transfer is a function to switch the manuals of the Positif and the Great. When Keyboard Transfer is active manual 1 is the Great manual and manual 2 is the Positif manual. Activate the Keyboard Transfer with the KT piston.

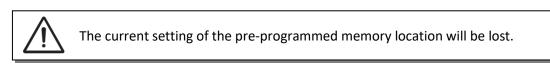
4.8 Pre-programmed memory locations

Pre-programmed memory locations are available by operating pistons PP to T and PL. These seven memory locations have factory settings (presets) appropriate for the quiet pianissimo to the loud tutti and the classic plenum.

Calling up a pre-programmed memory location:

Press a pre-programmed memory location (PP-T or PL). The active stops light up.

Programming a pre-programmed memory location:



Although it is possible to store any registration under a piston of a preprogrammed memory location it is advisable to select a registration matching the text of the piston.

- 1. Select the desired stops.
- 2. Press the SET piston. Hold in the piston.
- 3. Press the desired pre-programmed memory location (PP-T or PL).
- 4. Release the SET piston.

4.9 Capture memory:

Through use of the capture memory, a registration can be made active with just one piston.

The capture memory consists of 75 levels.

These levels can be seen on the display (Mem:...). Each level has eight memory locations

Opus	250	Mem:	1
Tr: ()/440	Cr:	

(pistons 1-8). The 600 capture memory locations are not pre-programmed and can be programmed by the musician.

Programming a capture memory location:



The current setting of the capture memory location will be lost.

- 1. Select the desired stops.
- 2. Use the and + pistons to select a level (1-75) on the display.
- 3. Press the SET piston. Hold in the piston.
- 4. Press the desired memory location (1-8).
- 5. Release the SET piston.

Calling up a capture memory location:

- 1. Use the and + pistons to select the desired level (1-75) on the display.
- 2. Press the desired memory location (1-8). The active stops light up.

4.10 Transposer

The Transposer function shifts the pitch by half-tone increments (from -8 to +8).

The transposer setting can be read on the display (Tr: ...).

Opus 250 Mem: 1 Tr: 0/440 Cr:--

- 1. Press the TRANS piston.
- 2. Use the and + pistons to set the pitch.
- 3. When the transposer change needs to be saved, press the ENTER piston in the time the TRANS. piston is lit.

4.11 Crescendo pedal

The crescendo pedal can be used to activate 20 registrations step-by-step. These registrations start with very quiet (pianissimo) to very loud (tutti). The default registrations of the 20 steps can be changed. See § 5.1 Crescendo.

Activating the crescendo pedal

If the crescendo pedal is not activated it is indicated on the displays with Cr:--.

Use the CR piston to activate the crescendo	
pedal. The display indicates the actual step.	

Opus 250 Tr: 0/440			
Opus 250	Mem:	1	
Tr: 0/440	Cr:	0	

Crescendo pedal as additional swell pedal

The crescendo pedal can also be configured as a swell pedal. See § 5.5 Expression Pedals.

If the crescendo pedal is set as additional swell pedal, all functions of the crescendo pedal are deactivated.

4.12 Quick Access

Quick Access is a function to quickly access certain function of the organ.

4.12.1 Programming mode crescendo pedal

This function is not available if no expression pedal is set as crescendo pedal.

Pressing the ENTER and CR piston simultaneously enters the programming mode of the crescendo pedal. See § 5.1 Crescendo, sub 4 for next steps.

5 JOHANNUS MENU

In the Johannus Menu several functions of the organ can be set. Press the MENU piston to activate the Johannus Menu on the display. Navigating the menu is done with the - and + pistons. Confirmation of a choice is done with the ENTER piston. Cancel or step back in the menu is done with the MENU piston.

The Johannus Menu consists of the following functions:

Function	More information
Crescendo	§ 5.1
Datadump	§ 5.2
Demo Songs	§ 5.3
Display Contrast	§ 5.4
Expr. Pedals	§ 5.5
Keyboard Config	§ 5.6
Key Volumes	§ 5.7
MIDI Config	§ 5.8
Reset Procedures	§ 5.9
Reverb Settings	§ 5.10
Startup Settings	§ 5.11
Temperaments	§ 5.12
Tuning	§ 5.13
Version	§ 5.14

5.1 Crescendo

The crescendo pedal contains 20 pre-programmed registrations. These registrations start with very quiet (pianissimo) to very loud (tutti). These pre-programmed registrations can be changed.

Ĺ	Step 0 of the crescendo pedal cannot be changed.		
1.	Press the MENU piston.	Johannus Menu: Crescendo	
2.	Use the - and + pistons to select the Crescendo function on the display.	Johannus Menu: Crescendo	
3.	Press the ENTER piston. The first step of the crescendo pedal appears on the display.	Crescendo Cres. step: 0	
4.	Use the - and + pistons to select the step which has to be changed (for example step 5).	Crescendo Cres. step: 5	
5.	Change the registration and press the ENTER piston to save the new registration in the memory of the organ.		
6.	Repeat steps 4 and 5 if more crescendo pedal steps has to be changed.		

7. Press the MENO piston SX to exit the Johannus Menu. Dpus 250 Mem: 1 Tr: 0/440 Cr: 0	7. Press the MENU piston 3x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr: 0
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5.2 Datadump

The Datadump function sends several settings from the organ to a storage medium (the Johannus Sequencer+, for example) through the MIDI SEQ output. See § 3.4 External connections.

The settings to sent are: the content of all capture memory locations and all settings which can be set via the Johannus Menu, except Key Volumes. Key Volumes settings is a part of the intonation data. These data can be received with the optional Johannus Intonat software.

a. 9	a. Sending data from the organ		
1.	Press the MENU piston.	Johannus Menu: Crescendo	
2.	Use the - and + pistons to select the Datadump functions on the display.	Johannus Menu: Datadump	
3.	Press the ENTER piston. The Press ENTER text appears on the display.	Datadump Press ENTER	
4.	Make sure the desired storage medium is properly connected.		
5.	Press the ENTER piston. When data is being sent, Sending data appears on the display. Sending data will take some time.	Datadump Sending data	
ļ	Do not use the organ when the Sending data	a text is on the display.	

6. If the data dump is complete, the main menu appears on the display.
7. Press the MENU piston to exit the Johannus Menu.
Opus 250 Mem: 1 Tr: 0/440 Cr:--

b. Uploading data to the organ Receiving a data file has no relation to the Johannus Menu and can be done on every moment the organ is switched on, except when playing a Demo Song. Make sure to upload only data files which are recorded from the instrument concerned. Uploading a data file from another instrument may jeopardize the functioning of your instrument.

1.	Make sure the storage medium, the Johannus Sequencer+ for example, with a previous recorded data file is properly connected.	
3.	Start sending the data file on the sequencer. A message that a data file is being received appears on the display of the organ.	Uploading stored data
4.	When the upload is completed the main screen of the display appears automatically.	Opus 250 Mem: 1 Tr: 0/440 Cr:

5.3 Demo Songs

The Demo Songs function plays twelve different demo songs.

1.	Press the MENU piston.	Johannus Menu: Crescendo
2.	Use the - and + pistons to select the Demo Songs function on the display.	Johannus Menu: Demo Songs
3.	Press the ENTER piston. The title of the first demo song appears on the display.	Demo Songs [title]
4.	Use the - and + pistons to select one of the twelve demo songs.	
5.	Press the ENTER piston to select the demo song.	[title] Play one demo
6.	Use the - and + pistons to choose whether to play only the selected demo song (play one demo) or all demo songs (play all demo's).	
7.	Press the ENTER piston to start playing the selected demo song(s). The title and composer of the demo song appears on the display.	[title] [composer] ⊅
	 While playing a demo song, the operating functions of the organ are disabled except the following functions: a. 0 piston: stop playing the demo song('s). b. Organ volume control: adjust the volume of the organ. c. Cathedral volume control: adjust the volume of the reverb. 	
8.	Press the MENU piston 2x after having played the demo	Opus 250 Mem: 1

8.	Press the MENU piston 2x after having played the demo	Opus 250 Mem: 1
	cong(c) to ovit the Johannye Many	Tr: 0/440 Cr:

5.4 Display Contrast

The Display Contrast function adjusts the display contrast.

1.	Press the MENU piston.	Johannus Menu: Crescendo
2.	Use the - and + pistons to select the Display Contrast function on the display.	Johannus Menu: Display Contrast
3.	Press the ENTER piston. The current contrast level appears on the display.	Display Contrast Level: 9
4.	Use the - and + pistons to select the desired contrast level.	
5.	Press the ENTER piston to confirm and to return to the main menu.	Johannus Menu: Display Contrast
6.	Press the MENU piston to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr:

5.5 Expression Pedals

The organ is equipped with PEPC[™] (Programmable Expression Pedal Configuration). This function makes it possible to configure each expression pedal to one's own discretion.

We distinguish two types of expression pedals:

Swell pedal:	ynamics by increase or decrease of volume. In a pipe organ nis is achieved by closing or opening the swell shutters of a	
Crescendo pedal:	swell box. See also § 4.2 Expression pedals. dynamics by increase or decrease the amount of stops. See also § 4.11 Crescendo pedal.	

- a. An expression pedal can be configured as a swell pedal for several divisions at the same time.
- b. A division can only be connected to one expression pedal at the same time.
- c. An expression pedal cannot be configured as a swell pedal and a crescendo pedal at the same time.

1.	Press the MENU piston.	Johannus Menu: Crescendo
2.	Use the - and + pistons to select the Expr. Pedals function on the display.	Johannus Menu: Expr. Pedals
3.	Press the ENTER piston. The first expression pedal appears on the display.	Expr. Pedals Expr. Pedal 1

4.	Use the - and + pistons to select the expression pedal which has to be changed. Expression pedal 2, for example. Press the ENTER piston. The first possibility for the expression pedal appears on the display. The possibilities are: - Ch: swell pedal for Positif (<i>Opus 350 only</i>) - Gt/Pd: swell pedal for Great and Pedal - Sw: swell pedal for Swell - Cresc: crescendo pedal	Expr. Pedals Expr. Pedal 2 Expr. Pedal 2 > Gt/Pd: No
6.	Use the - and + pistons to select the desired possibility, Sw for example.	Expr. Pedal 2 > Sw : Yes
7.	Press the ENTER piston. The cursor jumps to the actual setting.	Expr. Pedal 2 Sw : >Yes
8.	Use the - and + to select the desired setting, $\ensuremath{\rm No}$ for example.	Expr. Pedal 2 Sw : >No
9.	Press the ENTER piston to confirm. The cursor jumps back.	Expr. Pedal 2 > Sw : No
10.	If necessary, repeat steps 6 to 9 to change other possibilities of press the MENU piston to return to the Expression Pedal menu.	Expr. Pedals Expr. Pedal 2
11.	If necessary, repeat steps 4 to 10 for another expression pedal of press the MENU piston 2x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr:

5.6 Keyboard Config

The Keyboard Config function sets the operation of the keys.

1.	Press the MENU piston.	Johannus Menu: Crescendo
2.	Use the - and + pistons to select the Keyboard Config function on the display.	Johannus Menu: Keyboard Config
3.	Press the ENTER piston. The actual setting of the first manual appears on the display.	>Great Automatic
4.	Use the - and + pistons to select the manual the setting of which must be changed: Choir (Positif) (Opus 350 only), Great, or Swell	
5.	Press the ENTER piston. The cursor moves to the second line of the display.	Great >Automatic

6.	Use the - and + pistons to select a setting for the	
	operation of the keys.	
	- Automatic: The manual has been set to High.	
	When activating a programmable MIDI stop or	
	optional solo- or orchestral voice, the manual will be	
	set to Velocity automatically.	
	- High: The keys respond when touched very lightly.	
	- Low: The keys respond when pressed further.	
	- Velocity: The keys are touch-sensitive.	
7.	Press the ENTER piston. The manual setting is now	>Great
	saved in the memory and the cursor moves back to the	Automatic
	first line of the display.	Automatic
8.	Repeat steps 4 to 7 to change the setting of another	Opus 250 Mem: 1
	manual or press the MENU piston 2x to exit the	•
	Johannus Menu.	Tr: 0/440 Cr:

5.7 Key Volumes

The Key Volumes function makes it possible to adjust the key volumes of each stop. The Key Volumes function consists of the following sub functions:

- Adjust
- Reset one stop
- Reset ALL stops

a. A	djust	
The	Adjust function sets the volume per key, stop and intonat	ion style.
1.	Switch off all stops.	
2.	Select an intonation style or variation.	
3.	Press the MENU piston.	Johannus Menu: Crescendo
4.	Use the - and + pistons to select the Key Volumes function on the display.	Johannus Menu: Key Volumes
5.	Press the ENTER piston. The first sub function of the Key Volumes menu appears on the display.	Key Volumes Adjust
	If you are asked to enter a code, the Key Volumes function has been secured at the request of the owner. Contact the owner or dealer to retrieve the code. Enter the code capture memory locations and press the ENTE	
6.	Press the ENTER piston. A question to select a stop to adjust appears on the display.	Select a stop to adjust

7.	Activate one stop. A question to press a key appears on the display.	Key: press a key Vol: -/+
8.	Press one key on the corresponding division and hold the key. The display will now show following Key: the key indicator and following Vol: the volume.	Key: 3 C Vol: 83 -/+
9.	Use the - and + pistons to set the desired volume.	
10.	Press the ENTER piston to save the change. The display requests confirmation. Use the - and + pistons to select No or Yes.	Save changes? No/Yes
11.	Press the ENTER piston to confirm.	Key: press a key Vol: -/+
12.	Press the MENU piston to return to the Key Volume menu.	Key Volumes Adjust
13.	If the changes have not been saved, the display will show Discard changes?. Use the - and + pistons to select Yes for discarding and press the ENTER piston. Go to step 17.	Discard changes? No/Yes
14.	Use the - and + pistons to select ${\tt No}$ if the changes still has to be saved and press the ENTER piston.	Key: press a key Vol: -/+
15.	Press the ENTER piston. The display requests confirmation.	Save changes? No/Yes
16.	Use the - and + pistons to select Yes. Press the ENTER piston for confirmation.	Key: press a key Vol: -/+
17.	Press the MENU piston 3x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr:

More key volumes can be changed by pressing another key or by selecting another stop.

b. Reset one stop

The Reset one stop sub function resets the key volumes for one stop in one intonation or variation to the factory setting.

1.	Switch off all stops	
2.	Select an intonation style or variation	
3.	Press the MENU piston.	Johannus Menu: Crescendo
4.	Use the - and + pistons to select the Key Volumes function on the display.	Johannus Menu: Key Volumes

5. Press the ENTER piston. The first sub function of the Key Volumes menu appears on the display.

Key Volumes Adjust

If you are asked to enter a code, the Key Volumes function has been secured at the request of the owner. Contact the owner

Enter code:

or dealer to retrieve the code. Enter the code using the pistons of the capture memory locations and press the ENTER piston.

6.	Use the - and + pistons to select the Reset one stop sub function on the display.	Key Volumes Reset one stop
7.	Press the ENTER piston. A question to select a stop to reset appears on the display.	Select a stop to reset
8.	Activate one stop. A question to confirm appears on the display.	Reset this stop? No/Yes
9.	Use the - and + pistons to select ${\tt No}\ {\tt or}\ {\tt Yes}.$	Reset this stop? No/Yes
10.	Press the ENTER piston to confirm and to return to the Key Volumes menu.	Key Volumes Reset one stop
11.	Press the MENU pistons 2x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr:

c. Reset ALL stops

The Reset ALL stops function resets the key volumes of all stops in one intonation style or variation to the factory setting.

1.	Select an intonation style or variation.	
2.	Press the MENU piston.	Johannus Menu: Crescendo
3.	Use the - and + pistons to select the Key Volumes function on the display.	Johannus Menu: Key Volumes
4.	Press the ENTER piston. The first sub function of the Key Volumes menu appears on the display.	Key Volumes Adjust
	If you are asked to enter a code, the Key Volumes function has been secured at the request of the owner. Contact the owner or dealer to retrieve the code. Enter the code capture memory locations and press the ENTE	• •

5.	Use the - and + pistons to select the Reset ALL stops sub function on the display.	Key Volumes Reset ALL stops
6.	Press the ENTER piston. A question to confirm appears on the display.	Reset ALL stops? No/Yes
7.	Use the - and + pistons to select No or Yes.	Reset ALL stop? No/Yes
8.	Press the ENTER piston to confirm and to return to the Key Volumes menu.	Key Volumes Reset one stop
9.	Press the MENU piston 2x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr:

5.8 MIDI Config

MIDI is a protocol for communication between the organ and other devices, such as PC, Johannus Sequencer+ or other musical instruments.

The programmable MIDI stops allow you to control any module voice through any MIDI channel (1-16).

The four parts of the programmable MIDI code are: Channel, Msb, Lsb en Voice.

1.	Press the MENU piston	Johannus Menu: Crescendo
2.	Use the - and + pistons to select the MIDI Config function on the display.	Johannus Menu: MIDI Config
3.	Press the ENTER piston. A question to select a MIDI stop to configure appears on the display.	Select a MIDI Stop to config
4.	Activate the MIDI stop which has to be configured (MIDI from the Swell, for example). The display shows on the first line: Swell Channel (the selected MIDI stop and the first part of the MIDI code) and on the second line the settings of all four parts: Channel, Msb, Lsb en Voice.	Swell Channel 2 0 0 1
5.	Use the - and + pistons to select the desired MIDI- channel.	Swell Channel 2 0 0 1
6.	Press the ENTER piston. The display shows: Swell Msb.	Swell Msb 2 0 0 1
7.	If needed, use the - and + pistons to select the desired Msb setting.	Swell Msb 2 0 0 1

8.	Press the ENTER piston. The display shows: Swell Lsb.	Swell Lsb 2 0 0 1
9.	If needed, use the - and + pistons to select the desired Lsb setting.	Swell Lsb 2 0 0 1
10.	Press the ENTER piston. The display shows: Swell Voice.	Swell Voice 2 0 0 1
11.	Use the - and + pistons to select the desired Voice setting.	Swell Voice 2 0 0 1
12.	Press the ENTER piston. The selected configuration is now stored in memory. The first of the four parts of the programmable MIDI code appears on the display.	Swell Channel 2 0 0 1
13.	Press the MENU piston 2x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr:

5.9 Reset Procedures

The Reset Procedures function can be used to reset a number of settings to the factory settings.

1.	Press the MENU piston.	Johannus Menu: Crescendo	
2.	Use the - and + pistons to select the Reset Procedures function on the display.	Johannus Menu: Reset Procedures	
3.	Press the ENTER piston. The first option of the Reset Procedures appears on the display.	Reset Procedures Crescendo def.	
4.	 pedal. Expr. Pedals: Resets the factory setting of the Memory default: Clears the entire capture memory MIDI default: Resets the factory settings of the 	Resets the factory settings of the 20 steps of the crescendo pedal. Resets the factory setting of the expression pedals. Clears the entire capture memory. Resets the factory settings of the MIDI stops. Resets the factory settings of the pre-programmed memory locations.	
5.	Press the ENTER piston. A question to confirm appears on the display.	Crescendo def. No/Yes	
6.	Use the - and + pistons to select No or Yes. Press the ENTER piston to confirm and to return to the Reset Procedures menu.	Reset Procedures Crescendo def.	

7. Press the MENU piston 2x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr:
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5.10 Reverb Settings

The Opus 250 is equipped with the Adaptive Surround Reverb ASR-12 system. With this system it is possible to choose a matching reverb for each intonation style and variation. The length of the reverb can be changed and a 3D Surround effect can be enabled.

1.	Use the intonation style and variation pistons to	
	activate an intonation style or variation the	
	reverberation of which has to be changed.	
2.	Press the MENU piston.	Johannus Menu: Crescendo
3.	Use the - and + pistons to select the Reverb Settings function on the display.	Johannus Menu: Reverb Settings
4.	Press the ENTER piston. The first function of the Reverb Settings appears on the display.	Reverb Settings Reverb Program
5.	Use the - and + pistons to select the desired reverb function which has to be changed. The following functions are available: Reverb Program, Reverb	Reverb Settings Rev. 3D Surround
	Length and Reverb 3D Surround.	
6.	Press the ENTER piston to confirm. The activated intonation style or variation appears on the first line of the display. The setting of the selected	Romantic 3D Surround: On
	reverb function appears on the second line of the display.	
7.	Use the - and + pistons to change the setting of the selected reverb function.	
8.	Press the ENTER piston to confirm and to return to the Reverb Settings menu.	Reverb Settings Rev. 3D Surround
9.	Press the MENU piston 2x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr:

5.11 Startup Settings

The Startup Settings can be used to select the startup defaults for the following functions:

- a. Chorus On/Off
- b. Default Intonation
- c. Side Speakers volume

a. Chorus On/Off

Startup Setting Chorus On/Off determines whether the Chorus function is switched on at startup of the organ.

1.	Press the MENU piston.	Johannus Menu: Crescendo
2.	Use the - and + pistons to select the Startup Settings function on the display.	Johannus Menu: Startup Settings
3.	Press the ENTER piston. The first item of the Startup Settings appears on the display: Chorus On/Off.	Startup Settings Chorus On/Off
4.	Press the ENTER piston. The actual setting appears on the display. The default setting is On.	Chorus On/Off (default) On
5.	Use the - and + pistons to select the desired setting, for example $\texttt{Off}.$	Chorus On/Off Off
6.	Press the ENTER piston to confirm and to return to the Startup Settings menu.	Startup Settings Chorus On/Off
7.	Press the MENU piston 2x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr:

b. Default Intonation

Startup Setting Default Intonation determines which intonation style is selected at startup of the organ.

1.	Press the MENU piston.	Johannus Menu: Crescendo
2.	Use the - and + pistons to select the Startup Settings function on the display.	Johannus Menu: Startup Settings
3.	Press the ENTER piston. The first item of the Startup Settings appears on the display.	Startup Settings Chorus On/Off
4.	Use the - and + pistons to select the Default Into. function.	Startup Settings Default Into.
5.	Press the ENTER piston. The actual setting appears on the display.	Default Into. Romantic
6.	Use the - and + pistons to select the desired intonation style, for example Symphonic.	Default Into. Symphonic
7.	Press the ENTER piston to confirm and to return to the Startup Settings menu.	Startup Settings Default Into.

c. 5	c. Side Speakers		
	rtup Setting Side Speakers determines the volume level of rtup of the organ.	the Surround Loudspeakers at	
1.	Press the MENU piston.	Johannus Menu: Crescendo	
2.	Use the - and + pistons to select the Startup Settings function on the display.	Johannus Menu: Startup Settings	
3.	Press the ENTER piston. The first item of the Startup Settings appears on the display.	Startup Settings Chorus On/Off	
4.	Use the - and + pistons to select the Side Speakers function on the display.	Johannus Menu: Side Speakers	
5.	Press the ENTER piston. The actual settings for the left and the right side speaker appear on the display.	>Level left: 30 Level right: 30	
6.	Use the - and + pistons to select side the level has to be changed, for example the right side.	Level left: 30 >Level right: 30	
7.	Press the ENTER piston. The pointer jumps to the set level.	Level left: 30 Level right:> 30	
8.	Use the - and + pistons to select the desired level, for example 25.	Level left: 30 Level right:>25	
9.	Press the ENTER piston to confirm and to return to the Side Speakers menu.	Level left: 30 >Level right: 25	
	For a proper balance of the Surround sound it is sides on an equal level. Use only unequal levels to caused by, for example, reflective surfaces on or	to correct different volumes	

10.	Press the MENU piston 3x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr:

5.12 Temperaments

The Temperaments function sets the temperament. There is choice out of eleven different temperaments:

- Equal (normal temperament)
- Young II
- Vallotti
- Kirnberger III
- Kirnberger II
- Neidhardt III
- Werckmeister III
- 1/6 Meantone (1/6 comma meantone)
- 1/5 Meantone (1/5 comma meantone)
- 1/4 Meantone (1/4 comma meantone)
- Pythagorean

1.	Press the MENU piston.	Johannus Menu: Crescendo	
2.	Use the - and + pistons to select the Temperaments function on the display.	Johannus Menu: Temperaments	
3.	Press the ENTER piston. The actual temperament appears on the display.	Temperaments Equal	
4.	Use the - and + pistons to select the desired temperament, for example Kirnberger III.	Temperaments Kirnberger III	
5.	Press the MENU piston 2x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/440 Cr:	
	This setting cannot be saved. When the organ is switched off and on again, it is set to Equal automatically.		

5.13 Tuning

The Tuning function shifts the pitch in steps of 1 Hz from 426 Hz to 454 Hz (standard pitch is a = 440 Hz).

The set pitch can be read on the display directly behind the transposer setting.

1.	Press the MENU piston.	Johannus Menu: Crescendo
2.	Use the - and + pistons to select the Tuning function on the display.	Johannus Menu: Tuning
3.	Press the ENTER piston. The actual Tuning setting appears on the display.	Tuning 440 Hz
4.	Use the - and + pistons to select the desired tuning, for example 442 Hz.	Tuning 442 Hz
5.	Press the ENTER piston to program the new setting and to return to the Johannus Menu.	Johannus Menu: Tuning
6.	Press the MENU piston to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/442 Cr:

5.14 Version

The Version function shows the version number of the software of the organ.

1.	Press the MENU piston.	Johannus Menu: Crescendo
2.	Use the - and + pistons to select the function Version on the display.	Johannus Menu: Version
3.	Press the ENTER piston. The data of the software of the organ appears on the display.	JHOXXXX OC XXXX
4.	Press the MENU piston 2x to exit the Johannus Menu.	Opus 250 Mem: 1 Tr: 0/442 Cr:

6 MAINTENANCE, TROUBLESHOOTING AND WARRANTY

6.1 Maintenance

Overview

Component	Maintenance	Frequency
Cabinet	Cleaning. See § 6.1.1	As required
Manuals	Cleaning and removing scratches. See § 6.1.2	As required

6.1.1 Maintenance of the cabinet

Do not use furniture polish or teak oil to clean the organ cabinet. Direct sunlight may discolour the organ cabinet.

- 1. Clean the cabinet with a damp cloth.
- 2. Rub the cabinet dry with a lint-free cloth.

6.1.2 Maintenance of the manuals

The manuals are plastic.



Do not use aggressive cleaning agents such as paint thinner or acetone to remove dirt.

- 1. Clean the manuals with a damp cloth.
- 2. Rub the manuals dry with a lint-free cloth.
- 3. Remove any scratches with car polish.

6.2 Problems

Overview

Problem	Cause	Solution
Pedal board does not work properly	The pedal magnet is making poor contact with the magnetic switch at the rear of the pedal front cover.	Reposition the pedal board.
Organ functions do not work properly pin: and the organ is not earthed.		Connect the organ to a grounded power socket.

6.3 Warranty

The conditions are specified in the warranty certificate. The warranty is void if changes or repairs are made to the organ by persons or organizations that are not authorized by Global Organ Group B.V.

7 MIDI IMPLEMENTATIONS

7.1 MIDI Implementation Chart

JOHANNUS Organs

MIDI Implementation card

Date: September 2008 Version 1.00

Functions		Transmitted	Recognized	Remarks	
Basic Channel	Default Changes	See MIDI Specs See MIDI Specs	See MIDI Specs Y ¹	See MIDI Specs	
Mode	Default Messages Altered	Mode 3 N * * * * * * * *	Mode 3 N N		
Note Number	True Voice	36 - 96 * * * * * * * *			
Velocity	Note ON Note OFF	9nH v=1 - 127 9nH (v=64) 9nH (v=0)	9nH v=1 - 127 9nH v=1 - 127 9nH v=0, 8nH v=*	Velocity ON Velocity OFF *=irrelevant	
After Touch	Keys Channels	N N			
Pitch Bend		N			
Control Change	7 11 100/101/6 100/101/6	Y Y Y Y		General Volume Expr. pedals Pitch Transposer	
Program Change	: True#	See MIDI Specs	See MIDI Specs See MIDI Specs	See MIDI Specs See MIDI Specs	
System Exclusive		See MIDI Specs	See MIDI Specs	See MIDI Specs	
Common	: Song Pos : Song Sel : Tune	N N N	N N N		
System Real Time	: Clock : Commands	N N	N N		
: Reset All Contr. : Local ON/OFF : All Notes OFF : Active Sense : Reset		N N Y N N	N N Y N N		
Notes		¹ Depends on number of divisions			

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

7.2 MIDI Specifications

This paragraph describes the specifications on the MIDI Implementation Chart in more detail.

Default basic channels (transmitted/recognized)

Opus 250:	1: Great	Opus 350:	1: Positif
	2: Swell		2: Great
	3: Pedal		3: Swell
	12: Stops		4: Pedal
			12: Stops

Basic channel changes (transmitted)

Can be programmed through the MIDI Config. See § 5.8 MIDI Config.

Control changes (transmitted)

Controller 7 (07h)	General volume, with volume values 40 (28h) - 127 (7Fh).
Controller 11 (0Bh)	Expression pedal, with volume values 55 (37h) - 127 (7Fh).
Controller 6 (06h)	Pitch, with pitch values 28 (1Ch) - 99 (63h).
	Pitch value 64 (40h) = A = 440Hz.
	The following applies to the pitch:
	LSB 100 (64h) 1 (01h) and the MSB 101 (65h) 0(00h).
	Transposer, with transposer values 56 (38h) - 72 (48h).
	Transposer value 64 (40h) = a = 440Hz.
	The following applies to the transposer:
	LSB 100 (64h) 2 (02H) and the MSB 101 (65h) 0(00h).

Control changes (recognized)

Controller 7 (07h)	General volume, with volume values 0 (00h) - 127 (7Fh).
	Volume values less than 40 (28h) are treated as 40 (28h).
Controller 11 (0Bh)	Expression Pedal, with volume values 0 (00h) - 127 (7Fh).
	Volume values less than 55 (37h) are treated as 55 (37h).

Program changes (transmitted/recognized)

Organ stops: Depends on the number of stops and the sequence of stops. MIDI stops (programmable): 1-128. See § 5.8 MIDI Config.

System exclusive messages (transmitted/recognized)

Each 'sys ex' (system exclusive) message largely looks the same. The first 7 bytes and the last byte are always the same. Only the value of the 8th byte varies. This is the 'sys ex message' that Johannus generally uses: F0 00 4A 4F 48 41 53 XX F7 (hexadecimal). The 'sys ex messages' described below only indicates the value of the 8th byte (XX) and the output from which it is transmitted.

All stops off

The 'all stops off' sys ex code is 7F. This sys ex code is transmitted through the MIDI SEQ. output when the 0 piston is pressed for a longer time. When an 'all stops off' sys ex code is received, all stops on the instrument are switched off.

Pushbutton values

When a piston is pressed, a sys ex code is transmitted with the value of the piston that is pressed (for example PP = 00 P = 01) through the MIDI MOD. output. These sys ex codes are only important when the Johannus sound module CSM 128 is connected to your instrument.

Other MIDI codes (transmitted)

Press the 0 piston to transmit the sys ex code, 'all stops off' and all volume settings through the MIDI SEQ. output.

<u>For the USA:</u> This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules as documented for identified product above. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment o- and then on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment referenced in this declaration is identical to the Organ tested and found acceptable with the standards. The technical records maintained by the responsible party continue to reflect the equipment being produced under this Declaration of Conformity within the variation that can be expected due to quantity production and testing on a statistical basis.

This equipment requires shielded interface cables in order to meet FCC class B limit. Any unauthorized changes or modifications not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

<u>For Canada</u>: **NOTICE.** This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

AVIS. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

<u>For C.A. US (Proposition 65)</u>: **WARNING.** This product contains chemicals known to cause cancer, birth defects and other reproductive harm, including lead.

For China:

有关产品中所含有害物质的说明

本资料就本公司产品中所含的特定有害物质及其安全性予以说明。

本资料适用于 2007 年 3 月 1 日以后本公司所制造的产品。

环保使用期限



此标志适用于在中国国内销售的电子信息产品,表示环保使用期限的年数。所谓环保使用期限是指在自制造日起的规 定期限内,产品中所含的有害物质不致引起环境污染,不会对人身、财产造成严重的不良影响。 环保使用期限仅在遵照产品使用说明书,正确使用产品的条件下才有效。 不当的使用,将会导致有害物质泄漏的危险。

产品中有毒有害物质或元素的名称及含量

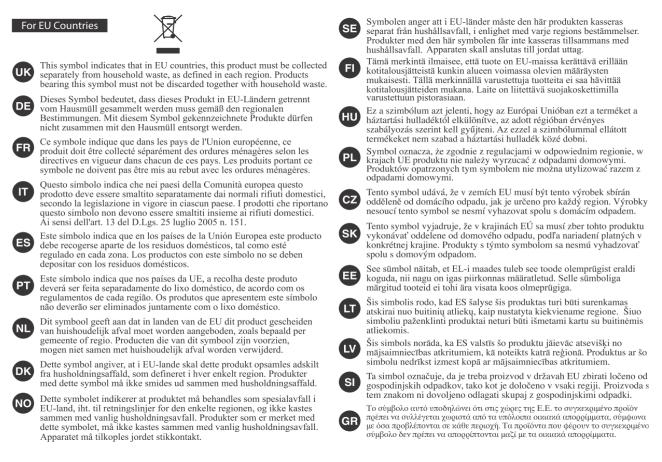
部件名称	有毒有害物质或元素					
前川十泊 你	铅(Pb)	汞(Hg)	镉(Cd)	六价铬(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
外壳 (壳体)	×	0	0	0	0	0
电子部件(印刷电路板等)	×	0	×	0	0	0
附件(电源线、交流适配器等)	×	0	0	0	0	0

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。

×:表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量要求。

因根据现有的技术水平,还没有什么物质能够代替它。

For EU:



• This product complies with the requirements of EMCD 2014/30/EU and LVD 2014/35/EU.

For the U.K.:

IMPORTANT:

As the colors of the wires in the mains lead of this apparatus may not correspond with the colored markings identifying the terminals in your plug, proceed as follows:

The wire which is colored GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol \oplus or colored GREEN or GREEN-AND-YELLOW.

The wire which is colored BLUE must be connected to the terminal which is marked with the letter N or colored BLACK.

The wire which is colored BROWN must be connected to the terminal which is marked with the letter L or colored RED.

For additional safety, all externally accessible metal parts (such as headphones, Aux-in/out, MIDI, toe pistons, etc.) are floating from safety earth.

THIS APPARATUS MUST BE EARTHED WHEN MAINS POWER CORD PLUG HAS AN EARTH-PIN (ONLY) THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE. GREEN-AND-YELLOW: EARTH, BLUE: NEUTRAL, BROWN: LIVE

WARNING:

仅适用于海拔2000m以下地区安全使用。

(2000m זבו מסווסווור זגופרביבו אר אישה זעשו בל וזכיאופר ואואופ בל א מטלגרול יו ++>

"मुग्राइदिर्देग वायायहां केन् क्रि2000यव में या खुवायि वरानेवायेन् येन् में नुयायहाय "

Dan hab yungh youq gij digih haijbaz 2000m doxroengz haenx ancienz sawjyungh.

دېڭىز يۈزىدىن 2000 مېتر تۆۋەن رايونلاردىلا بىخەتەر ئىشلەتكىلى بولىدۇ