

JOHANNUS

Positive

User Manual

Positive

Classic craftsmanship,
contemporary characteristics

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1 SAFETY

1.1 Safety instructions



- Position the organ on a stable, horizontal surface.
- Connect the organ to an earthed power socket.
- Turn off the organ when it is not in use.
- Do not place the organ in a damp area.
- Do not expose the organ to liquids.
- 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 Johannus Orgelbouw b.v. The organ contains static-sensitive components. The warranty is void if the organ is opened by a non-authorized person.

1.2 Symbols on the organ



Warning



Warning for electric shock



Warning for static-sensitive components

1.3 Symbols in the manual



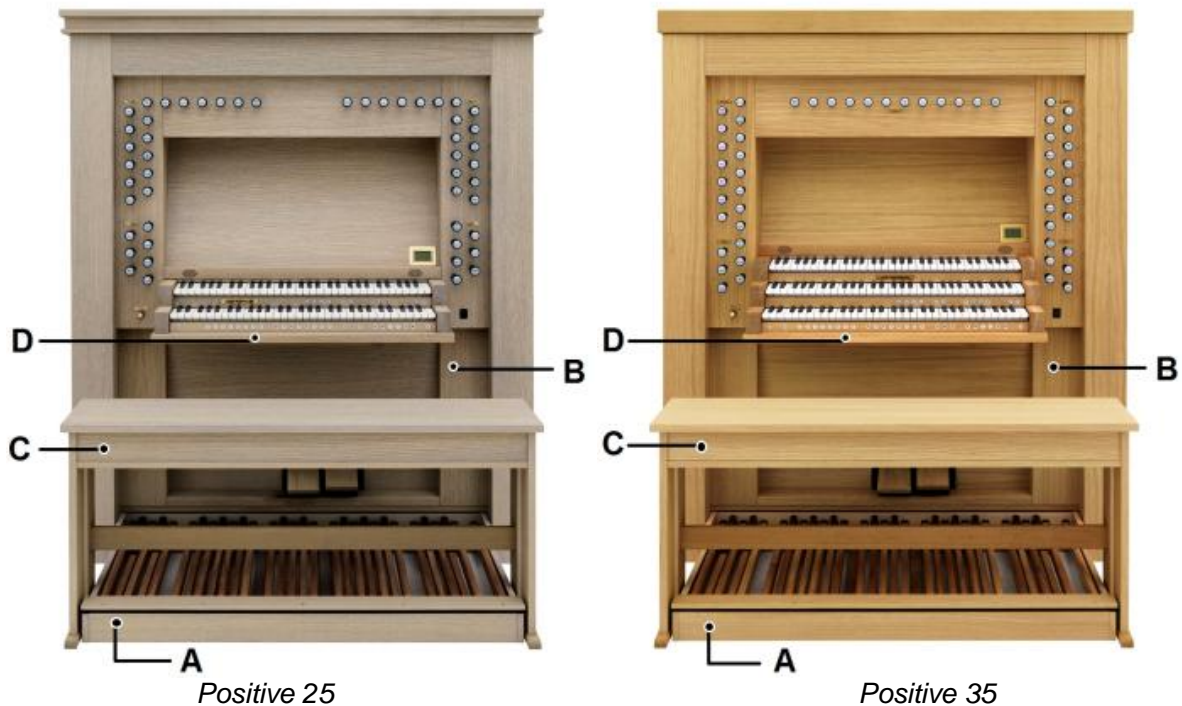
Warning or important information



Note

2 INSTALLATION

2.1 Installation and connection



1. Position the organ on a stable, horizontal surface.
2. Lean the organ slightly backward.
3. Slide the pedal board (A) against the organ (B).
4. Set the organ upright.
5. Place the organ bench (C) over the pedal.
6. Make sure the voltage of the organ matches the voltage of the mains. See the serial plate (D).
7. Connect the organ to an earthed power socket.

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 on/off and 0 pistons light up and the settings appear on the display.

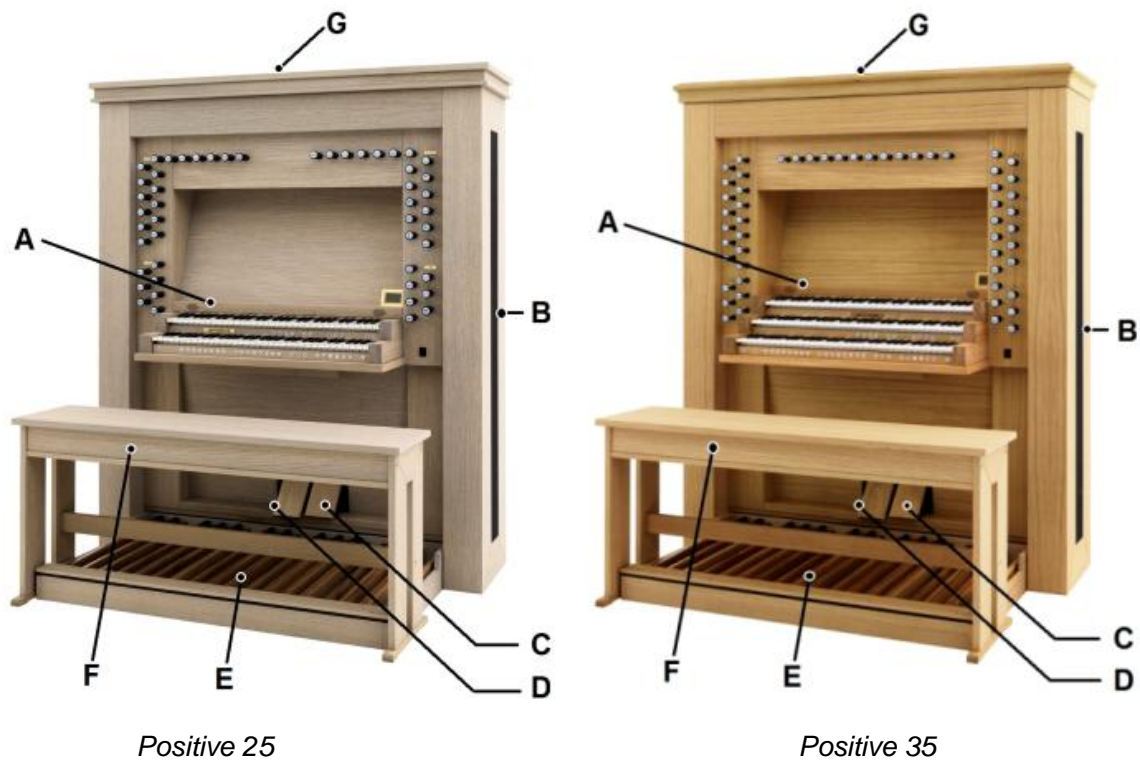
2.3 Transport and storage

Pay attention to the following during transport and storage:

- Remove the music desk and the pedal board from the organ.
- Relative humidity within the storage area: 10 to 90%.

3 DESCRIPTION OF THE ORGAN

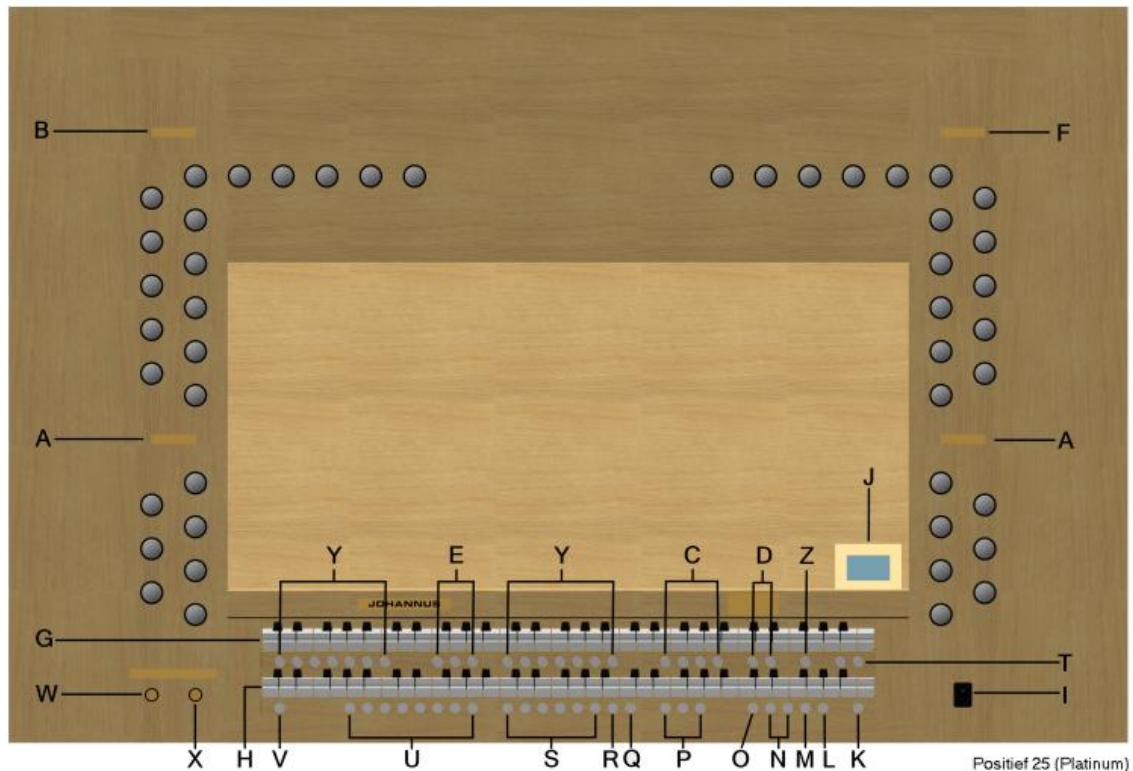
3.1 Overview of the main components



- A Music desk with tweeters Vivaldi 25
- A Music desk with tweeters Vivaldi 35
- B Reverb
- C General Crescendo pedal
- D Expression pedals
- E Pedal
- F Organ bench
- G Loudspeakers

3.2 Overview of controls

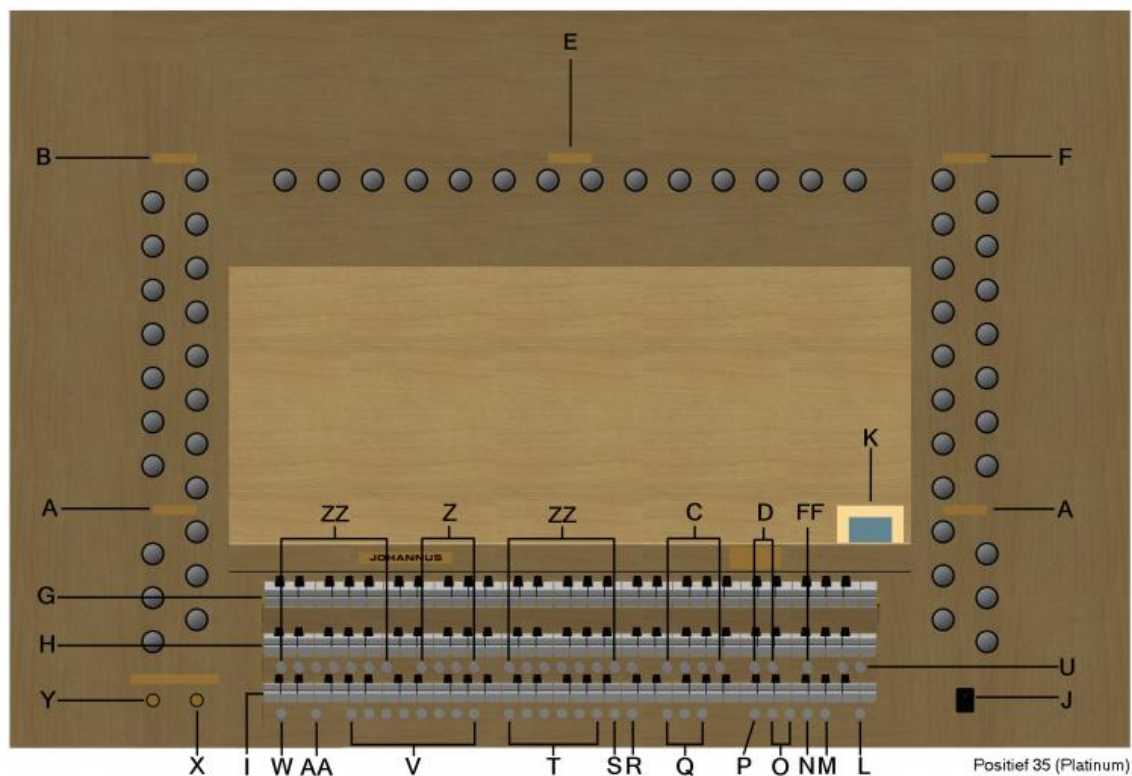
3.2.1 Positive 25



Positive 25

- | | |
|---|---|
| A Pedal board and couplers | M General Crescendo |
| B Great stops, tremulant and coupler | N - and + pistons |
| C Main group intonations | O Transposer |
| D Subgroup intonations | P Chorus, Manual Bass
Cantus Firmus |
| E Midi stops per manual | Q Reeds Off accessory |
| F Swell stops and tremulant | R 0/reset piston |
| G Manual Swell | S Pre-programmed
memory locations |
| H Manual Great | T Sequence -, Sequence + |
| I On/off | U Capture memory locations |
| J Display | V SET/Enter |
| K 0 and reset piston | W Volume control organ |
| L MENU | X Volume control acoustics |
| | Y Super Solo's (see 4.7) |
| | Z All swell to swell |

3.2.2 Positive 35



Positive 35

- | | |
|--|---|
| AA Keyboard Switch Great and Positive | O - and + pistons |
| A Pedal board and couplers | P Transposer |
| B Great stops, tremulant and coupler | Q Chorus, Manual Bass
Cantus Firmus |
| C Main group intonations | R Reeds Off accessory |
| D Subgroup intonations | S 0/reset piston |
| E Midi stops per manual | T Pre-programmed
memory locations |
| F Swell stops and tremulant | U Sequence -, Sequence + |
| FF All swell to swell | V Capture memory locations |
| G Manual Swell | W SET/Enter |
| H Manual Great | X Volume control acoustics |
| I Manual Positive | Y Volume control organ |
| J On/off | Z Midi stops per manual |
| K Display | ZZ Super Solo's (see 4.7) |
| L 0 and reset piston | |
| M MENU | |
| N General Crescendo | |

3.3 Connect and switch on the peripherals

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

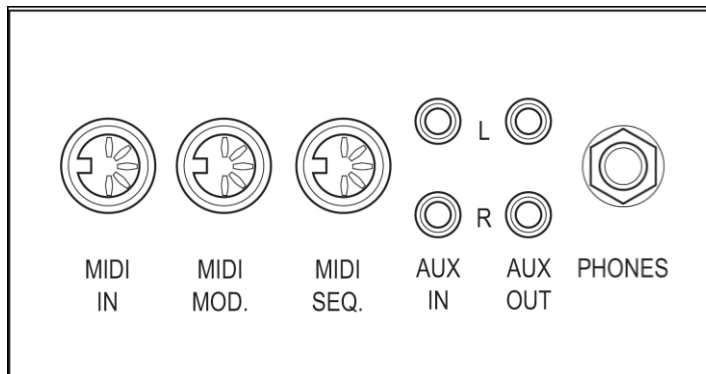


Follow the instructions provided in the documentation for the accessory.

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

3.4 External connections

The external connections are on the left backside of the organ.



- **MIDI IN:** This is an input for receiving MIDI codes from other devices.
- **MIDI MOD.:** This is a programmable MIDI output for connecting a module or expander, for example.
- **MIDI SEQ.:** This is a non-programmable MIDI output for connecting a sequencer or PC (with the optional Johannus Intonat program), for example.
- **AUX IN:** This is a (stereo) 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.



The volume of the device that is connected through the AUX IN cannot be adjusted with the general volume or the expression pedals. However, this is possible when the volume setting of the external device is controlled by means of MIDI codes through the MIDI MOD. connection of the instrument.

- **AUX OUT:** This is an output for connecting an external (stereo) amplifier.
- **PHONES:** 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 internal and/or external 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.
- **Acoustics:** The acoustics volume can be adjusted smoothly with the ACOUSTICS volume control.

4.2 Expression pedals

Expression pedals adjust the volume of the Swell and, as an option, an extra Swell Pedal for the Great/Pedal (Positive 25) and the Great/Pedal/Positive (Positive 35).

4.3 Adaptive Surround Reverb (standard)

The Adaptive Surround Reverb offers you the possibility to choose your own acoustic effect. This effect provides a spatial reproduction of the organ sound that can be adjusted continuously. There are 12 reverb types to choose from. Your organ had been built with the following settings:

- **Romantic** Town Church
- **Symfonic** Concert Hall
- **Baroque** Village Chapel
- **Historic** Royal Auditorium

Other reverb options:

- Abbey Church
- Basilica
- City Cathedral
- Hill Church
- Marble Church
- Marble Room
- Music Room
- Palace Hall

When you change the style and/or intonation, the chosen style, intonation and reverb appears on the display.

4.3.1 Volume

Turn the Volume to change the volume of the reverb.

4.3.2 Reverb

You can choose between 12 different type of reverbs. It's possible to choose one for every style and intonation.

1. Use the ROM, SYM, BAR, HIS (styles), SOLO and TRIO (intonation) pistons to activate the style and intonation the reverberation of which must be changed.

-
2. Press the MENU piston.
 3. Use the - and + pistons to select the *Reverb Settings* function on the display.
 4. Use the - and + pistons to select *Reverb Program*.
 5. Press the SET piston. On the display appears a list of twelve Reverbs which you can choose from.
 6. Use the - and + pistons to select the desired reverb.
 7. Press the SET piston. The chosen reverb is now stored in memory.
 8. Press the MENU piston twice to exit the Easy Menu.

4.4 Live Reverb (optional)

1. Use the ROM, SYM, BAR, HIS (styles), SOLO and TRIO (intonation) pistons to activate the style and intonation the reverberation of which must be changed.
2. Press the MENU piston.
3. Use the - and + pistons to select the *Reverb Settings* function on the display.
4. Press the SET piston. The activated style and intonation appear on the line at the top of the display. The line at the bottom indicates the selected reverberation.
5. Use the - and + pistons to select the desired reverberation.
6. Press the SET piston. The selected reverb is now stored in memory.
7. Press the MENU piston twice to exit the Easy Menu.

4.5 Intonations

The intonations are divided into a main group and a subgroup.

The main group consist of:

- **Romantic (ROM.)**
- **Symphonic (SYM.)**
- **Baroque (BAR.)**
- **Historic (HIS.)**

The subgroup consist of:

- **Classic**
- **Solo (SOLO)**
- **Trio (TRIO)**

1. Select a main group by pressing the ROM, SYM, BAR or HIS piston.
2. Then select a subgroup by pressing the SOLO or TRIO piston.



If not subgroup is selected, Classic is selected automatically.

4.6 Factory intonation

Saving the intonation settings



You require the Johannus intonation program to save the intonation settings.

1. Connect a PC to the organ. Use the MIDI SEQ. output, see § 3.4.
2. Save the intonation settings on the PC using the intonation program from Johannus.

Restoring the factory intonation



The current intonation settings will be lost if the settings are not saved on a PC.

1. Switch off the organ.
2. Press pistons 1 and 8. Hold in the pistons.
3. Switch on the organ.
4. Wait until the lamp in the 0 piston lights up.
5. Release pistons 1 and 8.

4.7 Super Solo's / Orchestrals (option)

4.7.1 Premium Voice Package

Super Solos are high quality, classical instrument voices intended especially for playing solos. Possible options:

- **Chimes** : chimes
- **Flute** : flute
- **Panfl.** : pan flute
- **Tuba** : tuba
- **Trump.** : trumpet
- **Oboe** : oboe
- **Clar.** : clarinet

4.7.2 Platinum Voice Package

Besides the seven super solo's mentioned above, you have the possibility to expand with 7 more super solo's. The extra super solo's are:

- **Strings** ⁴⁾
- **Harp** ^{2) 3)}
- **Harpsichord** ³⁾
- **Piano I** ^{2) 3)}
- **Piano Ext. (Only on the Positif 35)** ^{2) 3) 6)}
- **Gospel Organ I**
- **Gospel Organ II**
- **Lesley** ⁶⁾

-
- 1) When linking the manual on which the Gospel Organ can be played to the pedal, the Gospel Organ bass stop will sound through the pedal.
 - 2) When the piano or harp is activated, the pedal can only be played from C - e (the first 17 keys). The F sharp key of the pedal is given the function of the sustain (for piano) or subdue (for harp) pedal and the F key can be used as a rest for the right foot for proper operation of the sustain/subdue pedal. The display will briefly show this pedal switch as a message. The piano and harp cannot be switched on simultaneously.
 - 3) When the Harpsichord, harp or piano is switched on and the 'Special Stops Mode' is set to 'enable' (see § 4.15.10), the entire organ will switch to the Special Stops Mode. On the display, the following text will appear: 'Special Stops Mode for Harpsichord, harp and piano'.
 - 4) If the manual on which the Strings is played has been linked with the pedal, the Contrabass will also sound through the pedal.
 - 5) When Piano Ext is activated, the piano can be played on all manuals. Only on the Great stops 'normal pitch', on the choir one octave lower, and on the swell one octave higher. This way, a manual range of 7 octaves is achieved.
 - 6) The Lesley only has an effect on the Gospel Organ. If the Lesley Effect has not been activated, the (slow) chorus effect will be heard on the Gospel Organ. If the Lesley Effect has been activated, the (fast) tremolo effect will be heard on the Gospel Organ.



Most Orchestrals can by default be played on the Great.
The Strings can by default be played on the Swell.
The Harpsichord and the Chimes can by default be played on the Choir.
See § 4.15.7. to change this setting.



With all Orchestrals, the display will for a short moment display the selected manual and the selected voice/alternative.

4.8 Stops

The stops are activated via rocker switches or the capture memory. See § 4.13. The lamp in the rocker switch lights when the associated stop is active. The stops are divided into four groups:

- **Pedal:** Activates the stops associated with the Pedal.
Positive 25 / 35
- **Choir:** Selects the stops controlled by the Choir stops.
Positive 35
- **Great:** Activates the stops associated with the Great.
Positive 25 / 35
- **Swell:** Activates the stops associated with the Swell.
Positive 25 / 35

4.9 Couplers

- **Manual couplers:**
 - Swell – Choir: *stops on the Choir (Positive 35)*
Fully couples all keys of the Swell to the Choir.
 - Swell – Great: *stops on the Great (Positive 25 / 35)*
Fully couples all keys of the Swell to the Great.
 - Choir – Great: *stops on the Great (Positive 35)*
Fully couples all keys of the Choir to the Great.
- **Pedal coupler:**
 - Choir – Pedal: *stops on the Pedal (Positive 35)*
Fully couples all keys of the Choir to the Pedal.
 - Great – Pedal: *stops on the Pedal (Positive 25 / 35)*
Fully couples all keys of the Great to the Pedal.
 - Swell – Pedal: *stops on the Pedal (Positive 25 / 35)*
Fully couples all keys of the Swell to the Pedal.
- **Manual Bass (MB):** Couples the pedal monophone to the Great. Only the lowest note that is played on the Great is coupled from the pedal to the Great. Activate the Manual Bass with the MB piston.
If only the lowest tone of a chord is released, the tone activated by the MB function is dropped until a new lowest tone is played. This should prevent the MB tones from "jumping".
- **Cantus Firmus (CF):** Couples the Swell monophone to the Great. Only the highest tone played on the Swell is coupled to the Great. Use the CF piston to activate the Cantus Firmus.
If only the highest tone of a chord is released, the tone activated by the CF function is dropped until a new highest tone is played. This should prevent the CF tones from "jumping".
- **Keyboard transfer:** Stop on the Choir that switches the manual with the Great manual. The stops on the Choir can now be played on the Great manual and the stops on the Great can be played on the Choir manual.

4.10 Accessories

- **Chorus (CH):** 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.
- **Reeds Off (RO):** This is a function to switch off all reeds simultaneously. As long as this piston is pressed, no reeds can be activated. When this function is switched off, the reeds that were on are activated again. Use the RO piston to activate the Reeds Off function.
- **General Crescendo pedal (CR):** This is a function for switching the General Crescendo pedal on and off. See § 4.15.1.

4.11 Change the registration

The 0-piston cancels registration in two ways:

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

4.12 Pre-programmed memory locations

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

Calling up a pre-programmed memory location

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

Programming a pre-programmed memory location



The current setting of the pre-programmed memory location will be



Programming the pre-programmed memory location is limited to the text on the piston. For example, it is not advisable to program a pianissimo registration under the tutti 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).
4. Release the pre-programmed memory location piston (PP-T).
5. Release the SET piston.

4.13 Capture memory

Through use of the capture memory, a registration can be made active with just one piston. The capture memory consists of eight levels. Each level has eight memory locations. These levels can be seen on the display (Mem: . .). The 256 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 (1-32) 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 (1-32) on the display.
2. Press the desired memory location (1-8). The active stops light up.



The pistons SEQ- and SEQ+ allow you to select a lower or higher (respectively) memory location in steps of one. The lit-up capture piston and the display indicate which memory location has been selected.

4.14 Transposer

The Transposer function shifts the pitch by half-tone increments (from -8 to +8). The set pitch can be read on the display (Trans: . .).



The pitch can only be programmed when the TRANS. piston is lit.

Changing the transposer

1. Press the TRANS. piston.
2. Use the - and + pistons to set the pitch.



The pitch shift is not stored in memory. When the organ is switched on again, the most recently programmed pitch will be active.

Programming the pitch

1. Press the TRANS piston.
2. Use the - and + pistons to set the pitch.
3. Press the SET piston.



The pitch shift is stored in memory. When the organ is switched on again, the programmed pitch will be active.

4.15 Easy Menu

The Easy Menu is an operating system the settings of which can be read on the display. The Easy Menu is operated with the - and + pistons and the SET and the MENU pistons.

The Easy Menu consists of the following functions:

- Crescendo
- Datadump
- Demo Songs
- Keyboard Config
- Key Volumes
- MIDI Config
- Reset Procedures
- Reverb Settings
- Startup Settings
- Temperaments
- Tracker Action
- Tuning
- Tweeter Settings

4.15.1 Crescendo

The General Crescendo pedal can be used to activate different registrations step-by-step. These registrations start with very quiet (*pianissimo*) to very loud (*tutti*).

Activate the General Crescendo pedal

When the General Crescendo pedal is not activated, the `CR: --` message is on the display.

1. Press the CR piston to activate the General Crescendo pedal. The display indicates which step has been set.



Only step 0 cannot be changed

Change the General Crescendo pedal

The default set stop combinations of the crescendo steps can be changed and saved in the memory.

1. Press the MENU piston.
2. Use the - and + pistons to select the `Crescendo` function on the display.
3. Press the SET piston. The display shows the following options:
 - `Change Cresc. Function`
 - `Program`
4. Use the - and + pistons to select the `Program` function.
5. Press the SET piston.
6. Use the - and + pistons to select the step to be changed.
7. Set the desired registration for the step.
8. Press the SET piston.
9. Select another step to be changed, if desired.
10. Press the MENU piston to return to the sub menu.
11. Use the - and + pistons to select the `Change Cresc. Function`.
12. Press the SET piston.

-
13. The text `Change Cresc. Function` appears on the display followed by the options:
 - `Crescendo (default)`
 - `Great/Pedal Swell`
 14. Use the - and + pistons to select the desired function.
 15. Press the SET piston.
 16. Press the MENU piston twice to exit the Easy Menu.

4.15.2 Datadump

The Datadump Mode function sends settings from the organ to a storage medium (for example a sequencer) through the MIDI SEQ. output. See § 3.4.

1. Press the MENU piston.
2. Use the - and + pistons to select the `Datadump` function on the display.
3. Press the SET piston. The `Press Set to send data` text appears on the display.
4. Make sure the desired storage medium is properly connected.
5. Press the SET piston again. When data is being sent, `Sending data` appears on the display.



Do not use the organ when the `Sending Data` text is on the display.

6. Press the MENU piston to return to the main menu.
7. Press the MENU piston again to exit the Easy Menu.

4.15.3 Demo Songs

The Demo Songs function plays twelve different demo songs.

1. Press the MENU piston.
2. Use the - and + pistons to select the `Demo Songs` function.
3. Press the SET piston. The title and composer of the first demo song appears on the display.
4. Use the - and + pistons to select one of the twelve demo songs.
5. Press the SET piston to select a demo song.
6. Use the - and + pistons to choose whether to play the selected demo song (`play one`) or all demo songs (`play all`).
7. Press the SET piston to start playing the selected demo song(s).
 - Press the right 0-piston for several seconds to stop playing the demo song.
 - Use the Organ volume control to adjust the volume before or while playing the demo song.
 - Use the Acoustics volume control to adjust the reverb volume before or while playing the demo song.
8. Press the MENU piston after having played the demo song(s). You will return to the main menu automatically.
9. Press the MENU piston again to exit the Easy Menu.

4.15.4 Keyboard Config

The Keyboard Mode function sets the operation of the keys.



This function is not available for organs with wooden keyboards.

1. Press the MENU piston.
2. Use the - and + pistons to select the `Keyboard Config` function on the display.
3. Press the SET piston. The display shows the current manual setting of one of the manuals.
4. Use the - and + pistons to select the manual of which the settings must be changed.



- **Choir:** Choir (Positive 35)
- **Great:** Great (Positive 25 / 35)
- **Swell:** Swell (Positive 25 / 35)

5. Press the SET piston.
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, 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 force-sensitive.

7. Press the SET piston. The manual setting is now saved in the memory.
8. Press the MENU piston to return to the main menu.
9. Press the MENU piston again to exit the Easy Menu.

4.15.5 Key Volumes



If you are asked to enter a PIN code, the Key Volumes function has been secured at the request of the owner. Contact the owner or dealer to retrieve the PIN code. Enter the code using the pistons of the capture memory and press the SET piston.

The Key Volumes function consists of the following sub-functions:

- Adjust
- Reset one stop
- Reset ALL stops

Adjust

The Adjust function sets the volume per key, stop and intonation.

1. Switch off all stops.
2. Select an intonation.
3. Press the MENU piston.
4. Use the - and + pistons to select the `Key Volumes` function on the display.
5. Press the SET piston.
6. Use the - and + pistons to select the `Adjust` function on the display.
7. Press the SET piston.
8. Activate one stop.

-
9. 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.
 10. Use the - and + pistons to set the desired volume.
 11. Press the SET piston to save the change.
 12. The display requests confirmation. Use the - and + pistons to select *No* or *Yes*.
 13. Press the SET piston for confirmation.
 14. Press the MENU piston to return to the main menu.
 15. If the changes have not been saved, the display will show *Discard changes?*. Use the - and + pistons for *Yes* and press the SET piston to cancel the changes.
 16. Press the MENU piston twice to exit the Easy Menu.



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

Reset one stop

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

1. Switch off all stops.
2. Select an intonation.
3. Press the MENU piston.
4. Use the - and + pistons to select the *Key Volumes* function on the display.
5. Press the SET piston.
6. Use the - and + pistons to select the *Reset one stop* function on the display.
7. Press the SET piston.
8. Activate one stop.
9. The display requests confirmation. Use the - and + pistons to select *No* or *Yes*.
10. Press the SET piston.
11. Press the MENU piston twice to exit the Easy Menu.

Reset ALL stops

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

1. Select an intonation.
2. Press the MENU piston.
3. Use the - and + pistons to select the *Key Volumes* function on the display.
4. Press the SET piston.
5. Use the - and + pistons to select the *Reset ALL stops* function on the display.
6. Press the SET piston.
7. The display requests confirmation. Use the - and + pistons to select *No* or *Yes*.
8. Press the SET piston for confirmation.
9. Press the MENU piston twice to exit the Easy Menu.

4.15.6 MIDI Config

MIDI is a protocol for communication between the organ and other devices, such as:

- PC
- Sequencer
- Other musical instruments

The programmable MIDI stops allow you to control any module voice (1-127) through any MIDI channel (1-16).

1. Press the MENU piston. *MIDI Config* appears on the display.
2. Press the SET piston. The text *Manual:* appears on the display, with the following text below *Channel MSB LSB Voice*.
3. Select the MIDI stop to be programmed (for example *MIDI Swell*). *Manual:* will be followed by the selected manual on the display.
4. Use the - and + pistons to select the desired MIDI channel (*Ch: . .*).
5. Press the SET piston.
6. Use the - and + pistons to select the desired MSB value (*MSB: . . .*).
7. Press the SET piston.
8. Use the - and + pistons to select the desired LSB value (*LSB: . . .*).
9. Press the SET piston.
10. Use the - and + pistons to select the desired MIDI voice number (*Voice: . .*).
11. Press the SET piston. The selected adjustments are now stored in memory.
12. Select another MIDI stop to be programmed, if desired.
13. Press the MENU piston to return to the main menu.
14. Press the MENU piston again to exit the Easy Menu.

4.15.7 Reset Procedures

The Reset Procedures function is used to delete the capture memory or to reset a number of settings to the factory settings.

1. Press the MENU piston.
2. Use the - and + pistons to select the *Reset Procedures* function on the display.
3. Press the SET piston. The display shows the menu for the Reset Procedures.
4. Use the - and + pistons to select the desired procedure.



- Crescendo default
 - Cust. Temperament default
 - Memory default
 - MIDI default
 - Preset default
 - Reverb Program default
 - Tracker Action default
 - Tweeter Volume default
5. Press the SET piston. The display requests confirmation.
 6. Use the - and + pistons to select *No* or *Yes*.
 7. Press the SET piston for confirmation.
 8. Press the MENU piston to return to the main menu.
 9. Press the MENU piston again to exit the Easy Menu.

4.15.8 Reverb Settings

There are two possible options concerning the Reverb Settings. The standard of the organ is to be build with Adaptive Surround Reverb (§ 4.3). But it is also possible to choose for the optional Live Reverb (§ 4.4).

Adaptive Surround Reverb (standard)

1. Use the ROM, SYM, BAR, HIS (styles), SOLO and TRIO (intonation) pistons to activate the style and intonation the reverberation of which must be changed.
2. Press the MENU piston.
3. Use the - and + pistons to select the `Reverb Settings` function on the display.
4. Press the SET piston. The display shows three possibilities:
 - `Reverb Program`
 - `Reverb Length`
 - `Reverb 3D Surround`
5. Use the - and + pistons to select `Reverb Program`.
6. Press the SET piston. On the display appears a list of twelve Reverbs which you can choose from.
7. Use the - and + pistons to select the desired reverb.
8. Press the SET piston. The chosen reverb is now stored in memory.
9. Use the - and + pistons to select `Reverb Length`.
10. Press the SET piston.
11. Use the - and + pistons to select the desired length of the reverb (1-20).
12. Press the SET piston. The chosen reverb length is now stored in memory.
13. Use the - and + pistons to select `Reverb 3D Surround`.
14. Press the SET piston.
15. Use the - and + pistons to switch the 3D Surround `On` or `Off`.



Select `Off` for a standard reverberation to produce a clearer and more transparent sound.

Select `On` for an extra addition to the reverberation to produce a fuller sound.

16. Press the SET piston. The selected 3D Surround setting is stored in the memory.
17. Press the MENU piston twice to exit the Easy Menu.

Live Reverb (optional)

1. Use the ROM, SYM, BAR, HIS (styles), SOLO and TRIO (intonation) pistons to activate the style and intonation the reverberation of which must be changed.
2. Press the MENU piston.
3. Use the - and + pistons to select the `Reverb Settings` function on the display.
4. Press the SET piston. The activated style and intonation appear on the line at the top of the display. The line at the bottom indicates the selected reverberation.
5. Use the - and + pistons to select the desired reverberation.
6. Press the SET piston. The selected reverb is now stored in memory.
7. Press the MENU piston twice to exit the Easy Menu.

4.15.9 Startup Settings

The Startup Settings function saves the desired standard intonation in the memory.

1. Press the MENU piston.
2. Use the - and + pistons to select the `Startup Settings` function.
3. Press the SET piston.
4. The display shows three possibilities:
 - `Chorus on/off`
 - `Default Intonation`
 - `Side Speakers`
5. Use the - and + pistons to select `Chorus on/off`.
6. Use the - and + pistons to select whether the Chorus (CH) accessory must be switched on or off when switching on the organ.
7. Press the SET piston. The selected setting is saved in the memory.
8. Use the - and + pistons to select `Default Intonation`.
9. Press the SET piston.
10. Use the - and + pistons to select an intonation (`Romantic`, `Symphonic`, `Baroque` or `Historic`) that must be activated when the organ is switched on.
11. Press the SET piston. The selected intonation is saved in the memory.
12. Use the - and + pistons to select `Side Speakers`.
13. Press the SET piston.
14. The option to adjust the left and right volume of the acoustic system appears on the display.
15. Use the - and + pistons to set the desired volume of the left channel (`Level Left`). Press the SET piston.
16. Use the - and + pistons to set the desired volume of the right channel (`Level Right`). Press the SET piston.
17. Press the MENU piston twice to exit the Easy Menu.

4.15.10 Temperaments

The Temperaments function sets the temperament.



This setting cannot be saved. When the organ is switched on again, it is set to Equal automatically.

1. Press the MENU piston.
2. Use the - and + pistons to select the `Temperaments` function on the display.
3. Press the SET piston. The display shows the current temperament.
4. Use the - and + pistons to select the desired temperament.



You can choose from thirteen different temperaments:

- **Equal:** Normal or equal temperament
- **Young II**
- **Vallotti**
- **Kirnberger III**
- **Kirnberger II**
- **Neidhardt III**
- **Werckmeister III**

- **1/6 Meantone:** Meantone temperament
- **1/5 Meantone:** Meantone temperament
- **1/4 Meantone:** Meantone temperament
- **Pythagorean**
- **Custom**
- **Custom Programming**

5. Press the SET piston to select the desired temperament.
6. Press the MENU piston to return to the main menu.
7. Press the MENU piston again to exit the Easy Menu.

Programming your own temperament

1. Press the MENU piston.
2. Use the - and + pistons to select the `Temperaments` function on the display. Press the SET piston.
3. Use the - and + pistons to select the `Custom Programming` mode on the display.
4. Press the SET piston.
5. Press one key on the central octave of the great stops and hold the key. The display will now show following `Note`: the key indicator and following `Cents`: the detuning of that key in cents compared to the normal or equal temperament.
6. Use the - and + pistons to select the required detuning.



The detuning can be set between -50 and +50 cents. 100 cents is exactly half a tone. The changes are directly noticeable, but they have not yet been stored in the memory.

7. Press the SET piston after having changed one or more keys. The set own temperament is saved in the memory and you automatically return to the main menu.



The changes you make on the central keyboard of the great stops are automatically implemented on the entire organ.

8. Press the MENU piston again to exit the Easy Menu.

4.15.11 Tracker Action

The Tracker Action function is used to set the volume of the key mechanism.

1. Press the MENU piston.
2. Use the - and + pistons to select the `Tracker Action` function.
3. Press the SET piston. The display shows the current manual setting of one of the manuals.
4. Use the - and + pistons to select the manual the setting of which must be changed.
 - **Choir:** Choir Positive 35
 - **Great:** Great Positive 25 / 35
 - **Swell:** Swell Positive 25 / 35
 - **Pedal:** Pedal Positive 25 / 35

-
5. Press the SET piston.
 6. Use the - and + pistons to set the desired volume.
 7. Press the SET piston to save the change.
 8. Press the MENU piston to return to the main menu.
 9. Press the MENU piston again to exit the Easy Menu.

4.15.12 Tuning

The Tuning Mode function shifts the pitch in fourteen steps of 1 Hz (from 426 Hz to 454 Hz). The set pitch can be read on the display.

Programming the Tuning Mode

1. Press the MENU piston.
2. Use the - and + pistons to select the `Tuning` function on the display.
3. Press the SET piston. The display shows the current tuning settings (`Tune: . . . Hz`).
4. Use the - and + pistons to select the desired pitch.
5. Press the SET piston. The selected settings are stored in the memory and you return to the main menu automatically.
6. Press the MENU piston to exit the Easy Menu.

4.15.13 Tweeter Settings

The Tweeter function is used to turn the tweeters on or off and to adjust the volume of the tweeters.

1. Use the ROM, SYM, BAR, HIST pistons to activate the style the tweeter setting of which you wish to change.
2. Press the MENU piston.
3. Use the - and + pistons to select the `Tweeter Settings` function.
4. Press the SET piston. The display shows the set intonation and `On` or `Off`.
5. Use the - and + pistons to turn the Tweeter on or off.
6. Press the SET piston. If the Tweeter is turned on, you can now adjust the volume. If not, you are directed to the main menu.
7. If the Tweeter is turned on, the display shows `Tweeter Level:`
8. Use the - and + pistons to set the desired volume.
9. Press the SET piston to save the changes. You are now directed to the main menu.
10. Press the MENU piston to exit the Easy Menu.

5 MAINTENANCE, TROUBLESHOOTING AND WARRANTY

5.1 Maintenance

Overview

Component	Maintenance	Frequency
Cabinet	Cleaning. See § 5.1.1.	As required
Manuals	Cleaning and removing scratches. See § 5.1.2.	As required

5.1.1 Cabinet maintenance

The cabinet is made of solid wood and wood veneer.



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

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

5.1.2 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.

5.2 Problems

Overview

Problem	Cause	Solution
Pedal does not work properly	The pedal magnet is making poor contact with the magnetic switch at the rear of the pedal board.	Reposition the pedal. See § 5.2.1.
Organ functions do not work properly	The organ is not earthed.	Connect the organ to an earthed power socket.

5.2.1 **Reposition the pedal**

1. Make sure the organ is placed on a stable, horizontal surface.
2. Lean the organ slightly backward.
3. Slide the pedal against the pedal board
4. Set the organ upright.
5. Make sure the pedal board works properly.
6. Contact your dealer if the pedal board does not work properly.

5.3 **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 Johannus Orgelbouw b.v.

6 MIDI IMPLEMENTATIONS

6.1 MIDI Implementation Chart

JOHANNUS Organs

Date: September 2008

MIDI Implementation card

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	
Aux	: 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: OMNY ON, POLY
Mode 3: OMNY OFF, POLY

Mode 2: OMNY ON, MONO
Mode 4: OMNY OFF, MONO

Y=YES
N=NO

6.2 MIDI specifications

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

Default basic channels (transmitted/ recognized)

2-manual instrument (with standard keyboard layout):

- 1: Great
- 2: Swell
- 3: Pedal
- 12: Stops

3-manual instrument (with standard keyboard layout):

- 1: Choir
- 2: Great
- 3: Swell
- 4: Pedal
- 12: Stops

Basic channel changes (transmitted)

Can be programmed through the MIDI program.

Control changes (transmitted)

- Controller 7 (07h) General volume, with volume values 40 (28h) – 127 (7Fh).
- Controller 11 (0Bh) Expression pedals, with volume values 63 (3Fh) – 127 (7Fh).
- Controller 6 (06h) Pitch, with pitch values 33 (21h) - 95 (5Fh).
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 61 (3Dh) - 67 (43h).
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).
Controller 11 (0Bh) Expression pedals, with volume values 0 (00Fh) – 127 (7Fh).

Program changes (transmitted/recognized)

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

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 long 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.

Sys ex code stops (Program Changes)

When a MIDI stop is switched on and off, an extra Program Change code (preceded by the sys ex code 3F) is transmitted through the MIDI SEQ. output, besides the usual Program Change. This is to distinguish between a 'normal' organ stop and a MIDI stop before transmitting a module.

When a stop is switched on and off, the following codes are transmitted:

Organ stop:	Through MIDI SEQ.: CB XX
MIDI stop:	Through MIDI MOD.: CX XX.
	Through MIDI SEQ.: CB XX and 3F CX XX

