

*User's Manual*

**JOHANNUS**

Classic Sound Module CSM-128



### Document information

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# Introduction

Congratulations on your choice and the purchase of this JOHANNUS CLASSIC SOUND MODULE.

The sound module (CSM-128) enables you to add 48 extra instruments (organ stops, classical instruments and effects) to your organ.

This User's manual contains a lot of useful information. First we will connect the sound module and put it into use. After that we will go through all the possibilities.

In a number of chapters we will enter at length into selecting instruments, MIDI channels and presets, setting up the sound module, adjusting instruments, etc.

In the appendices you will find technical specifications as well as a MIDI implementation chart, a menu survey and a list of instruments.

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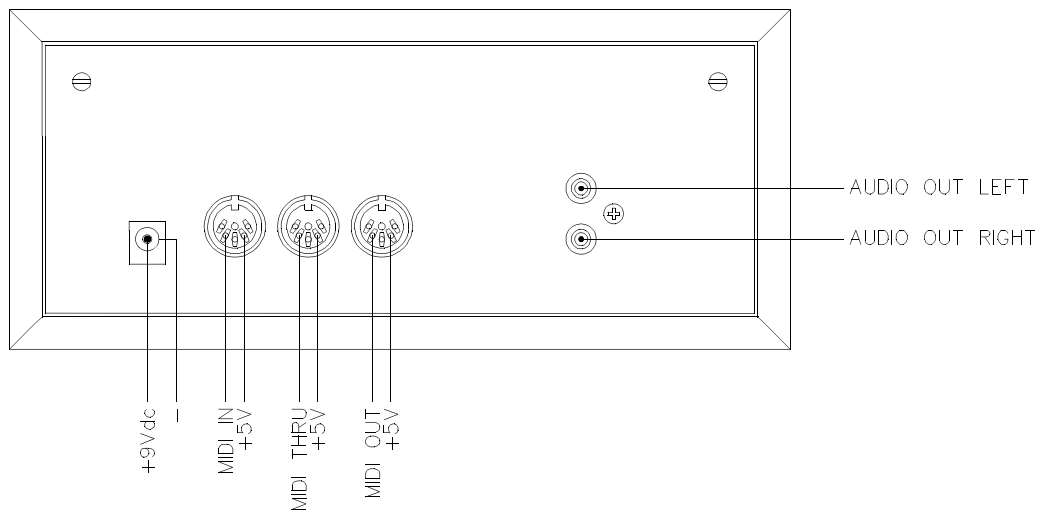
# Set up

The complete sound module consists of:

- Sound module
- Mains adapter 9Vdc/1A
- MIDI cable (DIN cord)
- Audio cable

## Connections

All connections can be found at the back of the sound module (see drawing).



## Connecting the mains adapter

Before connecting the mains adapter check first whether:

1. The on/off switch of the sound module is off. The on/off switch is to be found on the front of the sound module.
2. The voltage indication on the mains adapter corresponds to the correct mains voltage.

Then first connect the mains adapter to the sound module. The mains adapter connection is indicated as: 9Vdc.

After this connect the mains adapter to a wall socket.

## Connecting the organ

Basically you are supposed to connect the sound module to your JOHANNUS organ. It is also possible to connect the sound module to another device fitted with MIDI functionality. Before you start connecting the sound module to your organ with the help of the MIDI cable and the audio cable, we will give you a brief description of what MIDI is.

MIDI is the abbreviation of Musical Instruments Digital Interface. With MIDI musical instruments can be coupled, to each other, to a computer or to another MIDI device. It is possible, e.g. to play simultaneously your organ, a synthesizer or an expander (sound module). The MIDI standard is a description of the way in which music and sound are translated and communication takes place between devices fitted with MIDI functionality.

The (mostly) three MIDI connections of a device have the following functions:

### *MIDI IN*

For receiving MIDI codes from other devices.

### *MIDI THRU*

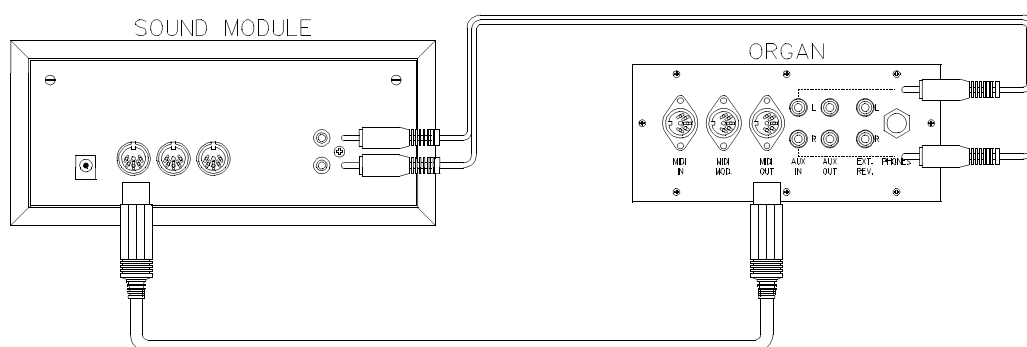
For relaying incoming MIDI codes from other devices.

### *MIDI OUT*

For sending MIDI codes to other devices.

Connect the sound module as follows:

1. With the help of the MIDI cable (DIN cord) connect MIDI OUT of the organ with MIDI IN of the sound module.  
N.B. In organs fitted with programmable MIDI the MIDI cable must be connected to the output MIDI MOD. instead of the output MIDI OUT.
2. With the help of the Audio cable connect the AUDIO OUT L and the AUDIO OUT R of the sound module with the AUX IN L and the AUX IN R of the organ.



## Switching on

First switch on the sound module with the on/off switch.

After switching on, the display will show four lines of text. This text will be shown just after a couple of seconds after switching on. This is because the various electronic circuits in the sound module need some time to reach the correct settings.

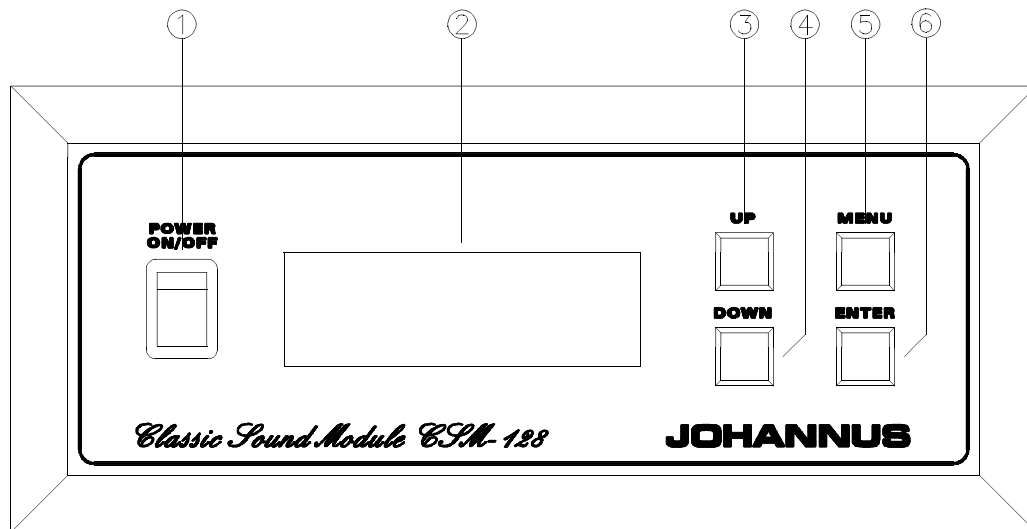
Do not switch on the organ until the display of the sound module shows four lines of text. This order of switching on is important, to ensure that the sound module is ready to receive all the initial settings which the organ sends to the connected MIDI devices, via the MIDI OUT. The organ can then be switched on.



# Control functions

## Front panel

All the control functions are located on the front of the sound module, as illustrated below.



1. On/off switch
2. 4x20 character display (LCD)
3. Push button 'UP'
4. Push button 'DOWN'
5. Push button 'MENU' (store selected setting and back to main menu)
6. Push button 'ENTER' (store selected setting and back to previous menu)

## On/off switch

With the on/off switch the sound module can be switched on or off. When the sound module is switched on, the display will show a text.

First switch on the sound module and then the organ. This is to allow the sound module to receive all the initial settings of the organ.

## Display

When the sound module is switched on, the display will show four lines of text in the initial screen after a couple of seconds.

The top three lines indicate the three highest MIDI channels to which an instrument has been assigned and what instrument it is.

In the following example the FLUTE is assigned to MIDI channel 1.

The PICCOLO is assigned to MIDI channel 2.

The RECORDER is assigned to MIDI channel 3.

Not indicated are the instruments assigned to higher MIDI channels.

The left part of the bottom line indicates volume setting. This is always set at 0 on switching on the sound module.

The right part of the bottom line indicates the selected preset. This is always set at M1 on switching on the sound module.

1	FLUTE		
2	PICCOLO		
3	RECORDER		
Volume :	0	PR :	M1

Throughout this guide, when there is a reference to a text shown on the display, this text will be marked grey. As shown in the above example with the volume setting 0 and the selected preset M1.

## Push button 'UP'

Within a chosen menu, pressing the push button 'UP' provides

- Selection of a previous part from the part list.
- Selection of a previous instrument from the instrument list.
- Selection of a previous menu item belonging to a selected menu.
- An increase of the numerical value of a selected number.

Pressing the push button once, or several times produces one or more steps up. Keeping the push button pressed down, provides a continuous increment in steps.

## Push button 'DOWN'

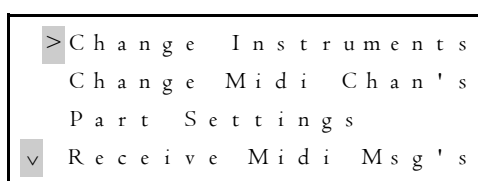
Within a chosen menu, pressing the push button 'DOWN' provides

- Selection of the next part from the part list.
- Selection of the next instrument from the instrument list.
- Selection of the next menu item from a selected menu.
- A lowering of the numerical value of a selected number.

Pressing the push button once, or several times produces one or more steps down. Keeping the push button pressed down, produces a continuous decrease in steps.

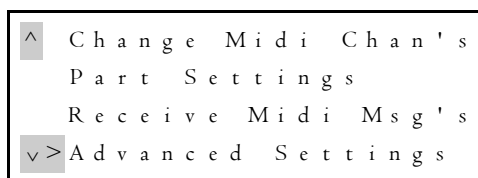
## Push button 'MENU'

Pressing the push button 'MENU' provides access to the main menu. The display will show the following text:



The arrow pointing to the right (in this case before the text "Change Instruments") indicates which menu item has been selected.

The arrow pointing down indicates that there are even more menu items below. These can be reached by pressing the DOWN button a couple of times. The menu items will then move up.



In addition to the arrow pointing to the right, the display now shows one arrow pointing down and one pointing up. This indicates the presence of more menu items both above and below the four menu items displayed. These can be reached by pressing the UP or the DOWN button as necessary. The menu items will move down or up.

If there is only an arrow pointing up, this indicates that there are other menu items above and these can be reached by pressing the UP button.

The 'MENU' push button can be used to go back to the main menu from a submenu (escape function).

## Push button 'ENTER'

A menu item or a selected setting can be confirmed or stored with the push button 'ENTER'. After storing the display returns to the previous menu.

# Initial screen

The initial screen has 3 different readouts:

1. Volume setting bottom left, preset setting bottom right and above it the three lowest MIDI channels to which one or more instruments are assigned.

```
1  F L U T E
2  R E C O R D E R
3  P A N F L U T E
V o l u m e : 0      P R : M I
```

In this screen the volume can be set (see Volume).

2. Preset setting bottom left, volume setting bottom right and over it the three lowest MIDI channels to which one or more instruments are assigned.

```
1  F L U T E
2  R E C O R D E R
3  P A N F L U T E
P r e s e t : M I    V o l : 0
```

In this screen the required preset can be selected (see Memory).

3. The “part” list. This shows what instrument is at each memory location and to what MIDI channel each instrument is assigned.

```
1  F L U T E
6  C H O I R  I
8  E N G L I S H  H O R N
11 R A N K E T  8 '
```

By means of the UP and DOWN buttons it is possible to run through the “part” list.

From the initial screen, any of the three different readouts can be selected, with the ENTER button:

- Volume setting
- Preset setting
- Part list

## Indication MIDI reception

When the display of the sound module shows one of the three initial screens, the display will also indicate which channels are receiving Note On MIDI messages.

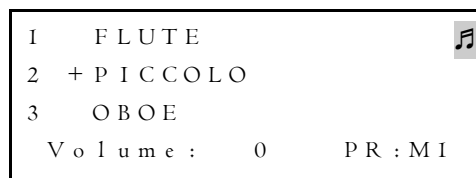
A Note On instruction is a MIDI message which gives the receiving device the instruction to switch on a tone.

Some examples will make this clear:

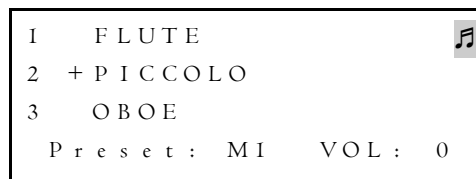
When playing on the Great of the organ and the stop MIDI GREAT1 is switched on, for all the instruments assigned to MIDI channel 1, two quavers will be displayed briefly behind the musical instrument.

In the three initial screens this will be displayed as shown below:

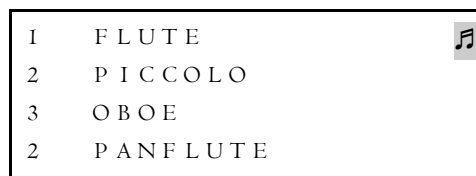
Initial screen 1 (volume setting selected).



Initial screen 2 (preset setting selected).



Initial screen 3 (part list selected).



When playing on the Swell of the organ and the stop MIDI SWELL 2 is switched on, for all the instruments assigned to MIDI channel 2, two quavers will be displayed briefly behind the musical instrument.

The plus sign (+) indicates that several instruments are assigned to a MIDI channel (see MIDI channel select/change).

In the three initial screens this will be displayed as follows:


Initial screen 1 (volume setting selected).

1	FLUTE	
2	+ PICCOLO	
3	OBOE	
V o l u m e : 0		P R : M I

Initial screen 2 (preset setting selected).

1	FLUTE	
2	+ PICCOLO	
3	OBOE	
P r e s e t : M I		V O L : 0

Initial screen 3 (part list selected).

1	FLUTE	
2	PICCOLO	
3	OBOE	
2	PANFLUTE	

When, e.g., playing on the GREAT of the organ, the coupler SWELL-GREAT is switched on and the stops MIDI GREAT 1 and MIDI SWELL 2 are switched on, for all the instruments assigned to MIDI channel 1 and MIDI channel 2, two quavers will be displayed briefly behind the musical instrument.

In the three initial screens this will be displayed as follows:




Initial screen 1 (volume setting selected).

1	FLUTE	
2	+ PICCOLO	
3	OBOE	
V o l u m e : 0		P R : M I

Initial screen 2 (preset setting selected).

1	FLUTE	
2	+ PICCOLO	
3	OBOE	
P r e s e t : M I		V O L : 0

Initial screen 3 (part list selected).

1	FLUTE	
2	PICCOLO	
3	OBOE	
2	PANFLUTE	

N.B. On organs fitted with programmable MIDI, the MIDI channel number does not have to correspond to the number indicated on the MIDI stop.

This MIDI reception indication makes it possible to simply check whether the MIDI connection between sound module and the sending device (organ) is correct.

# Memory

The sound module has 16 presets (from M1 to M8 and from G1 to G8). Each preset, in turn, has 16 parts. On switching on the sound module the selected preset is always M1.

```
1  FLUTE
2  RECORDER
3  PANFLUTE
V o l u m e :    0      P R : M I
```

All the changes you now make and store will be stored in this selected preset M1.

If you do not wish to store the changes in preset M1, but in another preset you can select another preset.

1. Press the ENTER button until the initial screen shows the preset setting bottom left (see Initial screen point 2).

```
1  FLUTE
2  RECORDER
3  PANFLUTE
P r e s e t : M I      V o l : 0
```

2. With the UP and DOWN buttons another preset can be selected (e.g. G2).

```
1  FLUTE
2  RECORDER
3  PANFLUTE
P r e s e t : G 2      V o l : 0
```

All the changes that are made and stored, after selecting a memory, will automatically be stored in the selected memory.

If the correct preset has been selected, the part list going with the selected memory can be displayed by pressing ENTER. (see also Initial screen).

```
1  FLUTE
6  CHOIR I
8  ENGLISH HORN
11 RANKET 8'
```

With the UP and DOWN buttons the part list can be scanned.



By pressing ENTER another time the initial screen is reached again, displaying the freshly selected preset (in this example G2) on the right and the volume setting on the left.

1	FLUTE	
2	RECORDER	
3	PANFLUTE	
Volume :	0	PR : G2

The presets from G1 to G8 can be recalled, on the sound module itself, but also with the free combination buttons (1 to 8) of the organ (G1 with the free combination button 1, G2 with the free combination button 2, etc.) if the item “Preset Changes” is switched to “receive” (see receiving MIDI-messages, Preset Changes).

If one of the separate free combinations is pressed (on organs with free combinations per division) or one of the presets, the sound module will return to the latest preset (from M1 to M8 or from G1 to G8) that had been selected by hand.

## Settings

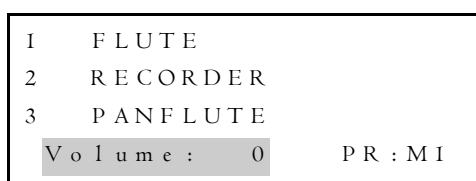
In the following paragraphs all the setting possibilities of the sound module will be explained, step by step.

Unless otherwise stated, the explanation of the settings always starts with the initial screen as displayed when the sound module is switched on. Of course, grey marked texts may vary, dependent on the settings selected.

When you are in a certain menu you can always return fast to the initial screen by pressing the MENU button once or several times (escape function).

## Volume

The volume of the whole sound module can be changed when the volume setting is displayed at bottom left in the initial screen.



The correct initial screen can be reached when the display shows one of the other initial screens, by pressing ENTER once or twice.

You can get to the initial screen when the display shows a (menu) item by pressing MENU once or several times (escape function).

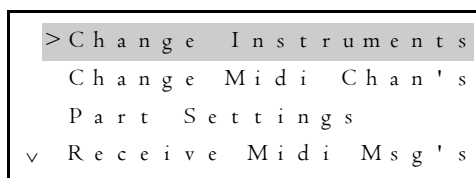
When the sound module has been switched on, the volume setting of the whole sound module can immediately be changed with the push buttons UP and DOWN. The volume level can be set from -5 to +5, in 11 steps.

When the sound module is switched on again, the volume for the entire module will automatically be set to 0.

## Change instrument

Changing an instrument of one of the several parts in a chosen preset, is done as follows:

1. Press the MENU button to get to the main menu.



2. Select with the UP and DOWN buttons the menu item "Change Instruments".

- Next press ENTER. The display will now show the part list of the selected preset. Select with the UP and DOWN buttons the part of which you wish to change the instrument.

```
1  FLUTE
6  CHOIR I
8  >ENGLISH HORN
11 RANKET 8'
```

- Then press ENTER. A flashing cursor indicates that you can change the instrument of the selected part now.

```
1  FLUTE
6  CHOIR I
8  > █ENGLISH HORN
11 RANKET 8'
```

- With the UP and DOWN buttons the required instrument for the part concerned can now be selected. Press enter when you have selected the required instrument for the selected part. The flashing cursor will now disappear.

```
1  FLUTE
6  CHOIR I
8  >RECORDER
11 RANKET 8'
```

- If you would like to change another instrument of another part you could go further through the part list with the UP and DOWN buttons to select another part.
- After changing the instruments of one or more parts, all the changes can be confirmed in one go, by pressing MENU. The changes will be stored in the selected preset. To indicate that a selection is being stored, the display will briefly show the text "Storing Data".

```
Storing Data...
```

After the data has been stored, you are automatically returned to the main menu.

```
> C h a n g e   I n s t r u m e n t s
   C h a n g e   M i d i   C h a n ' s
   P a r t   S e t t i n g s
v  R e c e i v e   M i d i   M s g ' s
```

## MIDI channel select/change

Before explaining how a MIDI channel can be changed, we will first, on the basis of an example, give an explanation of why an instrument is assigned to a certain MIDI channel.

The MIDI connection between instruments is divided into 16 “logical” channels (each MIDI message is given the channel number belonging to it as an identification). This way several devices can be “operated”, independently, with a simple connection.

A (sending) MIDI instrument can usually be set in such a way that this instrument can send MIDI messages through each of the 16 channels.

A (receiving) MIDI device can usually be set in such a way that this instrument can receive messages only from certain channels, selected previously.

Let’s assume that the sound module has been connected to a 2 manual JOHANNUS organ with MIDI stops. If the MIDI stop of the division in question is switched on, the division concerned will send MIDI codes to the sound module through its own channel. The Great sends MIDI codes to the sound module through channel 1. The Swell uses channel 2 and the pedalboard uses channel 3.

By assigning on the sound module, e.g. the HARPSICHORD to channel 1, the PANFLUTE to channel 2 and the RANKET 8' to channel 3, the HARPSICHORD can be played from the Great if the MIDI stop of the Great is switched on. The PANFLUTE can be played from the Swell if the MIDI stop of the Swell is switched on and/or the RANKET 8' from the pedalboard if the MIDI stop of the pedalboard is switched on.

In this way an extra stop has been added to each division.

Changing a MIDI channel of one or several “parts” in the selected preset is done as follows:

1. Press the MENU button to get to the main menu.

```
   C h a n g e   I n s t r u m e n t s
> C h a n g e   M i d i   C h a n ' s
   P a r t   S e t t i n g s
v  R e c e i v e   M i d i   M s g ' s
```

2. Select the menu item Change “Midi Chan’s” (change MIDI channels) with the UP and DOWN buttons.

3. Then press ENTER. The display will now show the part list of the selected preset. Select with the UP and DOWN buttons the part of which you wish to change the MIDI channel.

```
7  FLUTE
6  <CHOIR 1
8  ENGLISH HORN
I I RANKET 8 '
```

4. Then press ENTER. A flashing cursor indicates that you can change the MIDI channel of the selected part now.

```
7  FLUTE
█  <CHOIR 1
8  ENGLISH HORN
I I RANKET 8 '
```

5. With the UP and DOWN buttons, the required MIDI channel (from 1 to 16) for the part concerned can now be selected. Press enter when you have selected the required MIDI channel for the selected part. The flashing cursor will now disappear.

```
7  FLUTE
9  <CHOIR 1
8  ENGLISH HORN
I I RANKET 8 '
```

6. If you now wish to change another MIDI channel of another “part” you can go further through the part list with the UP and DOWN buttons to select another part.
7. After changing the MIDI channels of one or several “parts” all the changes can be confirmed in one go by pressing MENU. The changes will be stored in the selected preset. To indicate that your selection is being stored, the display will then briefly show the text “Storing Data”.

```
Storing Data . . .
```

After storing the data you will automatically be returned to the main menu.

```
> Change Instruments
  Change Midi Chan's
  Part Settings
v Receive Midi Msg's
```

It is also possible to assign several instruments to one MIDI channel. This can be done by selecting the same MIDI channel for two (or more) "parts", as indicated in the example below.

```
2  FLUTE
2  CHOIR I
8  ENGLISH HORN
I I RANKET 8'
```

In this example both the FLUTE (orchestra flute) and CHOIR 1 (choir sound) will be heard when sending MIDI codes through channel 2.

If several instruments are assigned to one MIDI channel, this is indicated in the initial screen with a plus sign (+).

```
2  + FLUTE
8  RECORDER
I I PANFLUTE
  Volume : 0      PR : MI
```

The above example shows that, in addition to the FLUTE, one or more other instruments are assigned to channel 2.

## Tremulant off/on

With certain instruments the tremulant can be switched on or off. Instruments with this possibility are marked with an asterisk (\*) behind the instrument number in the instrument list (see Appendices).

Switching the tremulant on or off is done as follows:

1. Press the MENU button to get to the main menu and select the menu item "Part Settings" with the UP and DOWN buttons.

```
  Change Instruments
  Change Midi Chan's
> Part Settings
v Receive Midi Msg's
```

- Then press ENTER. The display will now show the (sub)menu below.  
With the UP and DOWN buttons select the menu item "Tremulant Off/On" and then press ENTER.

```

>T r e m u l a n t   O f f / O n
M u t e   O f f / O n / S o l o

```

- If a "part" with an instrument for which it is not possible to switch the tremulant on or off (instruments without a tremulant) is selected, the fourth line will show the text "(Tremulant: NO)".

```

S e l e c t   P a r t
P a r t   1
2   C L A R I N E T
( T r e m u l a n t :   N O )

```

- If a "part" with an instrument for which it is possible to switch the tremulant on or off (instruments with a tremulant) is selected, the display will show the text "(Tremulant: ON)" or "(Tremulant: OFF)" depending on whether this is switched on or off.

```

S e l e c t   P a r t
P a r t   2
2   G O S P E L   O R G A N   I
( T r e m u l a n t :   O N )

```

- With the UP and DOWN buttons select the part of which you wish to switch the tremulant ON or OFF and then press ENTER. The display will now show the following text.

```

C h a n g e   T r e m u l a n t
P a r t   2
2   G O S P E L   O R G A N   I
T r e m u l a n t :   O N

```

- By pressing the UP or DOWN buttons the tremulant of the selected part can be switched on or off.

6. Changing a tremulant can be confirmed by pressing ENTER. The change will then be stored in the selected preset. To indicate that the selection is being stored, the display will now, briefly show the text "Storing Data".

```
Storing Data . . .
```

After storing the data you will automatically be returned to the submenu.

```
> Tremulant Off/On  
Mute Off/On/Solo
```

## Mute off/on/solo

The mute setting, in fact, matters only when several instruments are assigned to the same MIDI channel.

When four instruments have been assigned to one MIDI channel, for example, one or more instruments can be turned off temporarily with the mute function, without changing the instruments of the MIDI channels in the part list.

There are three mute functions

- Mute Off    Suppression off, instrument on.
- Mute On    Suppression on, instrument off.
- Mute Solo    All "parts" are turned off except those "parts" whose mute function is set to Solo. The Solo function especially comes in handy for quickly turning off all "parts" but one.

Changing the mute setting is done as follows:

1. Press the MENU button to get to the main menu and select the menu item "Part Settings" with the UP and DOWN buttons.

```
Change Instruments  
Change Midi Chan's  
> Part Settings  
v Receive Midi Msg's
```



- Then press ENTER. The display will now show the (sub)menu below. Select the menu item “Mute Off/On/Solo” with the UP and DOWN buttons, then press ENTER.

```

T r e m u l a n t   O f f / O n
> M u t e   O f f / O n / S o l o

```

- The display will then show the text “(Mute: OFF)”, “(Mute: ON)” or “(Mute: SOLO)” depending on the selected mute function.

```

S e l e c t   P a r t
      P a r t   1
2   G O S P E L   O R G A N   I
    ( M u t e :   O F F )

```

- Select the “part” whose mute function you wish to change with the UP and DOWN buttons, then press ENTER. The display will now show the following text.

```

C h a n g e   M u t e
      P a r t   2
2   G O S P E L   O R G A N   I
    ( M u t e :   O F F )

```

- The required mute function can now be selected with the UP and DOWN buttons.
- Setting the correct mute function for a certain “part” can be confirmed by pressing the ENTER button. The change will be stored in the selected preset. To indicate that the selection is being stored, the display will briefly show the text “Storing Data”.

```

S t o r i n g   D a t a . . .

```

After storing the data you will automatically be returned to the submenu.

```

> T r e m u l a n t   O f f / O n
  M u t e   O f f / O n / S o l o

```

## Receiving MIDI messages

In treating the menu “Receive Midi Msg’s” it is assumed that users are reasonably familiar with the possibilities of MIDI.

Apart from key information, other MIDI messages, e.g. volume settings and “patch changes” (messages to turn on instruments) can be sent to the sound module.

If you do or do not want the sound module to react to certain MIDI messages it can be set in such a way that it reacts to certain MIDI messages or not.

With the menu “Receive Midi Msg’s” (MIDI messages) the following items can be turned on or off:

- Instrument Changes
- Preset Changes
- General Volume
- Expression Pedal

### Instrument Changes

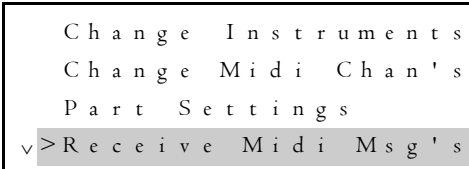
Turning on or off the item “Instrument Changes” determines whether the sound module reacts to “patch changes” (select an instrument, turn on) or not.

If “Instrument Changes” is on (- Receive -) the sound module will react to received “patch changes” and if “Instrument Changes” is off (- Don’t Receive -) the sound module will not react to “patch changes”.

N.B. To prevent undesired changes, the sound module has been designed in such way that only those “parts” react to “patch changes” which have a MIDI channel number corresponding to the “part” number.

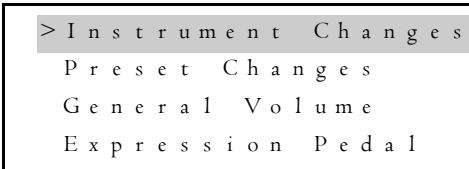
Turning on or off the item “Instrument Changes” is done as follows:

1. Press the MENU button to get to the main menu and select the menu “Receive Midi Msg’s” (MIDI messages) with the UP and DOWN buttons.



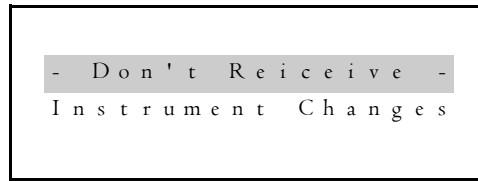
```
Change Instruments
Change Midi Chan's
Part Settings
v>Receive Midi Msg's
```

2. Then press ENTER. The display will now show the (sub)menu below. Select the item “Instrument Changes” with the UP and DOWN buttons, then press ENTER.

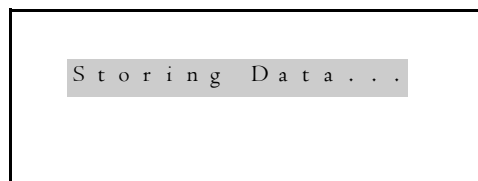


```
>Instrument Changes
Preset Changes
General Volume
Expression Pedal
```

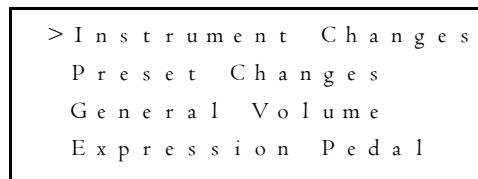
3. The display will then show the text “- Receive -” or “- Don't Receive -” with under it the text “Instrument Changes”, depending on the setting of the item “Instrument Changes”,



4. By pressing the UP or DOWN buttons the item “Instrument Changes” can be turned on (- Receive -) or off (- Don't Receive -).
5. Changing the item “Instrument Changes” can be confirmed by pressing ENTER. The change will be stored for the entire sound module. To indicate that the selection is being stored, the display will then, briefly show the text “Storing Data”.



After storing the data you will automatically be returned to the submenu.



### **Preset Changes**

Turning on or off the “Preset Changes” only makes sense if the sound module is used in combination with a JOHANNUS organ.

The sound module has been designed in such a way that it reacts to MIDI messages (System Exclusive Codes) sent by the organ when a free combination or a preset on the organ is activated.

If one of the free combinations from 1 to 8 is activated, one of the presets from G1 to G8 on the sound module will be selected, when the item “Preset Changes” is on (when activating free combination 1, preset G1, when activating free combination 2, preset G2, etc.).

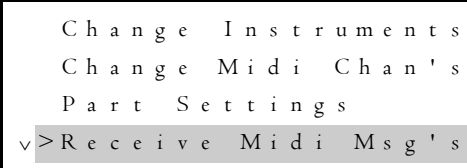
If one of the separate free combinations (on organs with free combinations per division) or one of the fixed combinations (presets) is pressed, the sound module will return to the latest preset (from M1 to M8 or from G1 to G8) which was selected by hand.

The item "Preset Changes" offers the possibility to store/recall not only stop combinations of the organ with the free combinations, but also to add instrument combinations of the sound module.

Turning on or off the item "Preset Changes" determines whether the sound module will or will not react to MIDI messages sent when a free combination on the organ is activated.

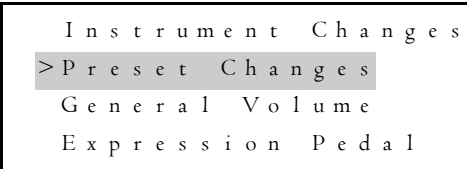
Turning on or off the item "Preset Changes" is done as follows:

1. Press the MENU button to get to the main menu and select the menu item "Receive Midi Msg's" (MIDI messages) with the UP and DOWN buttons.



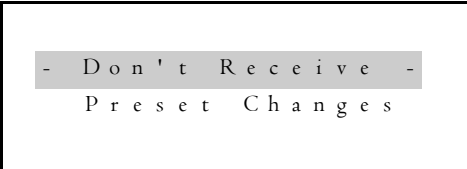
```
Change Instruments
Change Midi Chan's
Part Settings
v>Receive Midi Msg's
```

2. Then press ENTER. The display will now show the (sub)menu below. Select the item "Preset Changes" with the UP and DOWN buttons and then press ENTER.



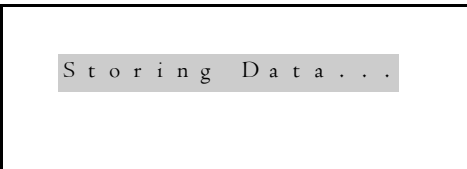
```
Instrument Changes
>Preset Changes
General Volume
Expression Pedal
```

3. The display will then show the text "- Receive -" or "- Don't Receive -" with under it the text "Preset Changes", depending on the setting of the item "Preset Changes".



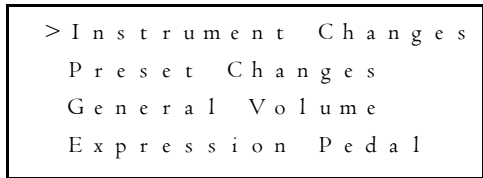
```
- Don't Receive -
Preset Changes
```

4. By pressing the UP or DOWN buttons the item "Preset Changes" can be turned on (- Receive -) or off (- Don't Receive -).
5. Changing the item "Preset Changes" can be confirmed by pressing ENTER. The change will be stored for the entire sound module. To indicate that the selection is being stored, the display will then, briefly, show the text "Storing Data".



```
Storing Data...
```

After storing the data you will automatically be returned to the submenu.



**General Volume**

Turning the item “General Volume” on or off, determines whether the sound module will or will not react to MIDI messages which are sent whenever the general volume setting of the organ (controller 11) is changed.

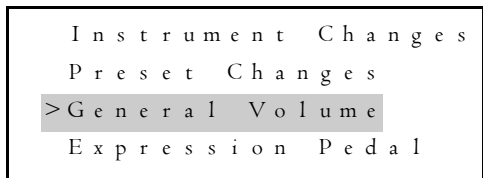
If “General Volume” (- Receive -) is on, the volume of the sound module will react to changes in the general volume of the organ and if “General Volume” (- Don't Receive -) is off, the sound module will not react to changes in the general volume.

Turning the item “General Volume” on or off is done as follows:

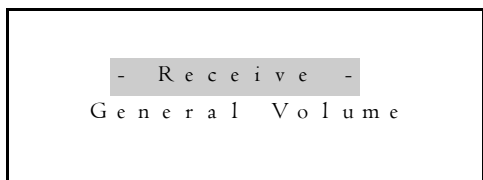
1. Press the MENU button to get to the main menu and select the menu item “Receive Midi Msg's” (MIDI messages) with the UP and DOWN buttons.



2. Then press ENTER. The display will now show the (sub)menu below. Select the item “General Volume” with the UP and DOWN buttons, then press ENTER.

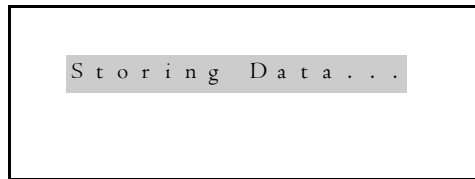


3. The display will then show the text “- Receive -” or “- Don't Receive -” with under it the text “General Volume”, depending on the setting of the item “General Volume”.

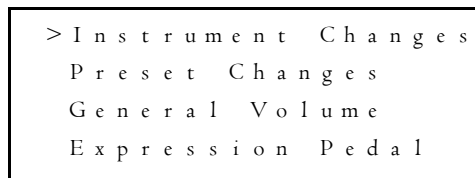


4. By pressing the UP or DOWN button the item “General Volume” can be turned on (- Receive -) or off (- Don't Receive -).
5. Changing the item “General Volume” can be confirmed by pressing ENTER. The change will then be stored for the entire sound module. To indicate that the selection

is being stored, the display will then, briefly, show the text “Storing Data”.



After storing the data you will automatically be returned to the submenu.



### Expression Pedal

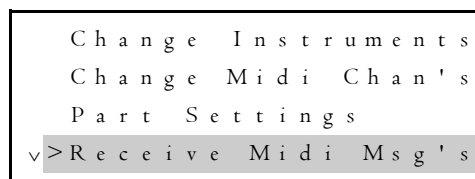
Turning the item “Expression Pedal” on or off, determines whether instruments of the sound module will react to MIDI messages sent when an expression pedal of the organ (controller 7) is used.

When “Expression Pedal” is on (- Receive -) not all the instruments of the sound module will react when an expression pedal is used. When an expression pedal belonging to a certain division is used, only the instruments of the sound module which can be played from that division will react. In other words, the volume of the instruments of the sound module which are played from e.g. the Swell will only be changed if the expression pedal of the Swell is used.

If “Expression Pedal” is off (- Don't Receive -) no instrument of the sound module will react when an expression pedal of the organ is used.

Turning on or off the item “Expression Pedal” is done as follows:

1. Press the MENU button to get to the main menu and select the menu item “Receive Midi Msg's” (MIDI messages) with the UP and DOWN buttons.



2. Then press ENTER. The display will now show the (sub)menu below.  
Select the item "Expression Pedal" with the UP and DOWN buttons, then press ENTER.

```
Instrument Changes
Preset Changes
General Volume
> Expression Pedal
```

3. The display will then show the text "- Receive -" or "- Don't Receive -" with under it the text "Expression Pedal", depending on the setting of the item "Expression Pedal".

```
- Receive -
Expression Pedal
```

4. By pressing the UP or DOWN button the item "Expression Pedal" can be turned on (- Receive -) or off (- Don't Receive -).
5. Changing the item "Expression Pedal" can be confirmed by pressing ENTER. The change will be stored for the entire sound module. To indicate that the selection is being stored, the display will then, briefly, show the text "Storing Data".

```
Storing Data...
```

After storing the data you will automatically be returned to the submenu.

```
> Instrument Changes
Preset Changes
General Volume
Expression Pedal
```

## Advanced settings

With the menu “Advanced Settings” a number of characteristics of each instrument can be changed (voicing). Namely:

- Instrument Volume
- Instrument Bass
- Instrument Treble
- Instrument Volume Left
- Instrument Volume Right
- Instrument C-Cis
- Instrument Tremulant Depth
- Instrument Tremulant Speed
- Instrument Tuning

With these instrument settings the settings of the instrument itself are changed. An instrument change does not depend on the selected preset. A change in a certain instrument setting is automatically applied to all the presets. If, for instance, a PICCOLO has been selected in both preset M1 and preset M2, and an instrument setting of the PICCOLO in M1 is changed, the setting of the PICCOLO in M2 will change along with it.

### Factory settings

By changing the advanced settings, many characteristics of the instruments can be changed. It might even be exaggerated, so that certain instruments no longer sound as they should and it is almost impossible to restore their original character.

Should this happen, there is always a possibility to recover the original factory settings for the ENTIRE sound module. The factory settings can be restored as follows.

1. Switch off the sound module.
2. Press BOTH buttons UP and DOWN.
3. Switch the sound module on, while keeping BOTH buttons UP and DOWN pressed down. During the time that the factory settings are being restored, the display will show the following text:

A rectangular box with a black border containing the text "Writing Intonation To Flash..." in a monospaced font, centered horizontally and vertically.

```
Writing Intonation  
To Flash...
```

4. Release both buttons UP and DOWN only when the display has returned to the initial screen.

A rectangular box with a black border containing the text "1 FLUTE", "2 +PICCOLO", "3 OBOE", and "Volume: 0 PR:MI" in a monospaced font, centered horizontally and vertically.

```
1 FLUTE  
2 +PICCOLO  
3 OBOE  
Volume: 0 PR:MI
```

The factory settings for all the instruments have now been restored.



## Instrument Volume

Independent of the volume of the entire sound module, the volume can be set with the item “Instrument Volume”, in (at most) 128 steps from 0 to 127 included, The lower limit does not have the value 0 for all the instruments. This is due to “scaling” which is determined during the factory voicing process.

Changing the volume setting of an instrument is done as follows:

1. Press the MENU button to get to the main menu and select the menu item “Advanced Settings” with the UP and DOWN buttons.

```
^  C h a n g e  M i d i  C h a n ' s
   P a r t  S e t t i n g s
   R e c e i v e  M i d i  M s g ' s
  v > A d v a n c e d  S e t t i n g s
```

2. Then press ENTER. The display will now show the (sub)menu below. Select the item “Instrument Volume” with the UP and DOWN buttons, then press ENTER.

```
> I n s t r u m e n t  V o l u m e
   I n s t r u m e n t  B a s s
   I n s t r u m e n t  T r e b l e
  v I n s t r  V o l u m e  L e f t
```

3. The display will now show the text below.:

```
S e l e c t  V o i c e  N r . :  I
F L U T E

( V o l u m e :  6 4 )
```

4. Select the instrument whose volume is to be changed with the UP and DOWN buttons and then press ENTER. The display will now show the following text.

```
V o i c e :
I  R E C O R D E R

V o l u m e :  6 4
```

Depending on the selected instrument and the volume set (previously) for the selected instrument, the grey marked text may differ from the example.

5. The required volume for the selected instrument can be set with the UP and DOWN buttons.

Because the lower limit does not have the value 0 for all the instruments, the display indicates with the word "MINIMUM" that the lower limit of the volume of the selected instrument has been reached.

```
V o i c e :  
3   R E C O R D E R  
      M I N I M U M  
V o l u m e : 1 1
```

When the volume for the selected instrument has reached the maximum value (127), the display shows the word "MAXIMUM".

```
V o i c e :  
3   R E C O R D E R  
      M A X I M U M  
V o l u m e : 1 2 7
```

6. Setting the correct volume for the selected instrument, can be confirmed by pressing ENTER. To indicate that the selection is being stored, the display will then, briefly, show the text "Storing Data".

```
S t o r i n g   D a t a . . .
```

After storing the data you will automatically be returned to the submenu.

```
> I n s t r u m e n t   V o l u m e  
   I n s t r u m e n t   B a s s  
   I n s t r u m e n t   T r e b l e  
v I n s t r   V o l u m e   L e f t
```

### Instrument Bass

With the item "Instrument Bass" the character of an instrument can be changed by changing the amount of "low" of the instrument concerned.

This function is similar to the BASS button of a stereo.

The character of an instrument can thus be made "thinner" or "thicker", by changing the Bass-value.

The value can be changed in 64 steps from 0 (a minimum of "low") to 63 (a maximum of "low").

Changing the bass setting of an instrument is done as follows:

1. Press the MENU button to get to the main menu and select the menu item "Advanced settings" with the UP and DOWN buttons.

```
^  C h a n g e  M i d i  C h a n ' s
   P a r t  S e t t i n g s
   R e c e i v e  M i d i  M s g ' s
v > A d v a n c e d  S e t t i n g s
```

2. Then press ENTER. The display will now show the (sub)menu below. Select the item "Instrument Bass" with the UP and DOWN buttons and then press ENTER.

```
   I n s t r u m e n t  V o l u m e
> I n s t r u m e n t  B a s s
   I n s t r u m e n t  T r e b l e
v  I n s t r  V o l u m e  L e f t
```

3. The display will now show the text below:

```
S e l e c t  V o i c e  N r . :  I
F L U T E

( B a s s :  6 3 )
```

(The value 63 may be different.)

4. Select the instrument whose bass setting is to be changed with the UP and DOWN buttons and then press ENTER. The display will now show the following text.

```
V o i c e :
3  R E C O R D E R

B a s s :  6 3
```

Depending on the selected instrument and the (previously) changed bass setting for the selected instrument, the grey marked text may differ from the example.

5. The bass-setting of the selected instrument can be changed with the UP and DOWN buttons.

6. Setting the correct bass value for the selected instrument can be confirmed by pressing ENTER. To indicate that the selection is being stored, the display will then, briefly, show the text "Storing Data".

```

S t o r i n g   D a t a . . .

```

After storing the data you will automatically be returned to the submenu.

```

> I n s t r u m e n t   V o l u m e
  I n s t r u m e n t   B a s s
  I n s t r u m e n t   T r e b l e
v I n s t r   V o l u m e   L e f t

```

### Instrument Treble

With the item "Instrument Treble" the character of an instrument can be changed by changing the amount of "high" of the instrument concerned.

This function is similar to the TREBLE button of a stereo.

The character of an instrument can thus be made "rounder" or "sharper", by changing the treble value.

The value can be changed in 64 steps from 0 (a minimum of "high") to 63 (a maximum of "high").

Changing the treble-setting of an instrument is done as follows:

1. Press the MENU button to get to the main menu and select the menu item "Advanced Settings" with the UP and DOWN buttons.

```

^ C h a n g e   M i d i   C h a n ' s
  P a r t   S e t t i n g s
  R e c e i v e   M i d i   M s g ' s
v > A d v a n c e d   S e t t i n g s

```

2. Then press ENTER. The display will now show the (sub)menu below. Select the item "Instrument Treble" with the UP and DOWN buttons and then press ENTER.

```

  I n s t r u m e n t   V o l u m e
  I n s t r u m e n t   B a s s
> I n s t r u m e n t   T r e b l e
v I n s t r   V o l u m e   L e f t

```

3. The display will now show the text below:

```
Select Voice Nr.: I
FLUTE

(Treble: 663)
```

(The value 63 may be different.)

4. Select the instrument whose treble setting is to be changed with the UP and DOWN buttons, then press ENTER. The display will now show the following text.

```
Voice :
3 RECORDER

Treble : 63
```

Depending on the selected instrument and the treble setting for the selected instrument (previously) changed, the grey marked text may differ from the example.

With the UP and DOWN buttons you can change the treble setting of the selected instrument.

5. Setting the correct treble value for the selected instrument can be confirmed by pressing ENTER. To indicate that the selection is being stored, the display will then, briefly, show the text "Storing Data".

```
Storing Data...
```

After storing the data you will automatically be returned to the submenu.

```
> Instrument Volume
Instrument Bass
Instrument Treble
v Instr Volume Left
```

### Instr. Volume Left

All the instruments can be set in such a way that they are reproduced both through the left channel (AUDIO OUT L) and through the right channel (AUDIO OUT R).

Independent of all other volumes (set volume of the sound module, set instrument volume, transmitted general volume or transmitted swell volume) the volume left (Instr. Volume Left) and right (Instr. Volume Right) of each of the instruments can be set separately.

With the functions "Instr. Volume Left" and "Instr. Volume Right" you can decide through which channel(s) an instrument will have to be reproduced in whole or in part. The value can be changed in 64 steps from 0 to 63.

When the value is 0, the instrument will not at all be reproduced through the channel in question. At value 63, the instrument will be reproduced in full through the channel concerned.

Depending on the position of the channels/loudspeakers in the organ or in the front, an instrument can be moved "from left to right" (the same effect as the PANPOT control in audio equipment).

N.B. Bear in mind that "equalizing" the volumes of both channels (left and right) of the instruments without C-Cis effect or whose C-Cis effect has been turned off (see C-Cis) will have a negative effect on the "stereoscopic image".

With instruments whose C-Cis effect is turned on (see C-Cis) it is exactly important that the volumes of both channels (left and right) are the same. If only to prevent imbalance between the C side and the Cis side.

Changing the "Instr. Volume Left" setting of an instrument is done as follows:

1. Press the MENU button to get to the main menu and select the menu item "Advanced Settings" with the UP and DOWN buttons.

```
^  C h a n g e  M i d i  C h a n ' s
   P a r t  S e t t i n g s
   R e c e i v e  M i d i  M s g ' s
v > A d v a n c e d  S e t t i n g s
```

2. Then press ENTER. The display will now show the (sub)menu below.  
Select the item "Instr. Volume Left" with the UP and DOWN buttons, then press ENTER.

```
I n s t r u m e n t  V o l u m e
I n s t r u m e n t  B a s s
I n s t r u m e n t  T r e b l e
v > I n s t r  V o l u m e  L e f t
```

3. The display will now show the text below:

```
Select Voice Nr.: 1
FLUTE

(Volume Left: 63)
```

(The value 63 may be different.)

4. Select the instrument whose "Volume Left" value is to be changed with the UP and DOWN buttons, then press ENTER. The display will now show the following text.

```
Voice:
3 RECORDER

Volume Left: 63
```

Depending on the selected instrument and the "Volume Left" setting for the selected instrument (previously) changed by you, the grey marked text may differ from the example.

5. With the UP and DOWN buttons the "Volume Left" value of the selected instrument can be changed.
6. Setting the correct "Volume Left" value for the selected instrument can be confirmed by pressing ENTER. To indicate that the selection is being stored, the display will, briefly show the text "Storing Data".

```
Storing Data...
```

After storing the data you will automatically be returned to the submenu.

```
> Instrument Volume
Instrument Bass
Instrument Treble
v Instr Volume Left
```

### Instr. Volume Right

The function “Instr. Volume Right” is basically the same as the function “Instr. Volume Left” (see Instr. Volume Left).

Changing the “Instr. Volume Right” setting of an instrument is done as follows:

1. Press the MENU button to get to the main menu and select the menu item “Advanced Settings” with the UP and DOWN buttons.

```
^  C h a n g e  M i d i  C h a n ' s
   P a r t  S e t t i n g s
   R e c e i v e  M i d i  M s g ' s
v> A d v a n c e d  S e t t i n g s
```

2. Then press ENTER. The display will now show the (sub)menu below. Select the item “Instr. Volume Right” with the UP and DOWN buttons, then press ENTER.

```
^  I n s t r u m e n t  B a s s
   I n s t r u m e n t  T r e b l e
   I n s t r  V o l u m e  L e f t
v> I n s t r  V o l u m e  R i g h t
```

3. The display will now show the text below:

```
S e l e c t  V o i c e  N r . :  1
   F L U T E

( V o l u m e  R i g h t :  6 3 )
```

(The value 63 may be different.)

4. Select the instrument whose “Volume Right” value is to be changed with the UP and DOWN buttons, then press ENTER. The display will now show the following text.

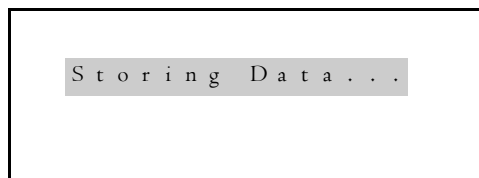
```
V o i c e :
3  R E C O R D E R

V o l u m e  R i g h t :  6 3
```

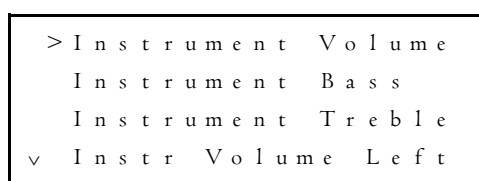
Depending on the selected instrument and the “Volume Right” setting for the selected instrument (previously) changed by you, the grey marked text may differ from the example.



5. With the UP and DOWN buttons, the “Volume Right” value of the selected instrument can be changed.
6. Setting the correct “Volume Right” value for the selected instrument can be confirmed by pressing ENTER. To indicate that the selection is being stored, the display will then, briefly, show the text “Storing Data”.



After storing the data you will automatically be returned to the submenu.



### Instrument C-Cis

It is possible to turn the C-Cis effect on or off for certain instruments. These instruments are marked with an asterisk(\*) behind the instrument number in the instrument list (see Appendices).

When on an instrument of the sound module the function “Instrument C-Cis” is turned on, the tones that are played will sound through the left and right channels alternatively (C sounds left, C# sounds right, D sounds left, D# sounds right, etc.). Pipe organs are often built this way to realize a wide sounding instrument.

The sound module has the possibility to turn the C-Cis function of a number of instruments on or off.

When the C-Cis function is turned off, all the tones can sound through both the left and the right channels. To what extent an instrument sounds through the left or the right channel is determined by the “Instr. Volume Left” and “Instr. Volume Right” values set by you (see Instr. Volume Left and Instr. Volume Right).

When the C-Cis function is turned on, you can choose from the possibilities C-Cis or Cis-C. When you choose possibility C-Cis, the C will sound left, the C# right, the D left, the D# right, etc.

When you choose possibility Cis-C, the C will sound right, the C# left, the D right, the D# left, etc.

This choice makes it possible to make the sound module always sound wide. This is possible, e.g. when two instruments (with the C-Cis function) of the sound module are played simultaneously from the organ and one instrument is set as C-Cis, whereas the other one is set as Cis-C (if so desired with a third instrument added without C-Cis function or whose C-Cis function has been turned off).

Changing the C-Cis-setting of an instrument is done as follows:

1. Press the MENU button to get to the main menu and select the menu item “Advanced Settings” with the UP and DOWN buttons.

```

^  C h a n g e  M i d i  C h a n ' s
   P a r t  S e t t i n g s
   R e c e i v e  M i d i  M s g ' s
v > A d v a n c e d  S e t t i n g s

```

2. Then press ENTER. The display will now show the (sub)menu below. Select the item “Instrument C-Cis” with the UP and DOWN buttons, then press ENTER.

```

^  I n s t r u m e n t  T r e b l e
   I n s t r  V o l u m e  L e f t
   I n s t r  V o l u m e  R i g h t
v > I n s t r u m e n t  C - C i s

```

3. When an instrument whose C-Cis function cannot be turned on or off has been selected, the fourth line will read “(C-Cis: No )”.

```

S e l e c t  V o i c e  N r . :  1 9
C H O I R  2

( C - C i s :  N O      )

```

When an instrument whose C-Cis function can be turned on or off (instruments with C-Cis function) has been selected, the display will show the following text:

```

S e l e c t  V o i c e  N r . :  3 4.
H A R M O N I C  F L U T E  8 '

( C - C i s :  O F F   )

```

Depending on the setting of the item C-Cis (previously) changed by you, the grey marked text will show the text “OFF”, “C-Cis” or “Cis-C”.

4. Select the instrument whose C-Cis-setting is to be changed, with the UP and DOWN buttons, then press ENTER. The display will now show the following text.

```

Voice :
34 HARMONIC FLUTE 8'
C - C i s : OFF

```

Depending on the selected instrument and the C-Cis setting (previously) changed by you, the grey marked text may differ from the example.

5. With the UP and DOWN buttons the C-Cis-setting of the selected instrument can be changed.
6. Selecting the correct C-Cis setting can be confirmed by pressing ENTER. To indicate that the selection is being stored, the display will then, briefly, show the text "Storing Data".

```

Storing Data . . .

```

After storing the data you will automatically be returned to the submenu.

```

> Instrument Volume
  Instrument Bass
  Instrument Treble
√ Instr Volume Left

```

### Instr. Trem Depth

It is possible to turn a tremulant on or off for certain instruments. These instruments are marked with an asterisk(\*) behind the instrument number in the instrument list (see Appendices).

On instruments with the possibility of turning a tremulant on or off, the tremulant depth can be set (when the tremulant of an instrument is ON).

The value of the tremulant depth can be changed in 64 steps from 64 (no tremulant depth) to 127 (very deep tremulant).

Changing the “Trem Depth” (tremulant depth) of an instrument is done as follows:

1. Press the MENU button to get to the main menu and select the menu item “Advanced Settings”, with the UP and DOWN buttons.

```
^  C h a n g e  M i d i  C h a n ' s
   P a r t  S e t t i n g s
   R e c e i v e  M i d i  M s g ' s
v> A d v a n c e d  S e t t i n g s
```

2. Then press ENTER. The display will now show the (sub)menu below. Select the item “Instr. Trem Depth”, with the UP and DOWN buttons, then press ENTER.

```
^  I n s t r  V o l u m e  L e f t
   I n s t r  V o l u m e  R i g h t
   I n s t r u m e n t  C - C i s
v> I n s t r .  T r e m  D e p t h
```

3. When an instrument whose tremulant cannot be turned on or off (and whose depth cannot be set) has been selected, the fourth line will read “(TremulantDepth:No)”.

```
S e l e c t  V o i c e  N r . :  1 9
C H O I R  2
( T r e m u l a n t D e p t h : N O )
```

When an instrument whose tremulant can be turned on or off (instruments with tremulant) has been selected, the display will show the present value of the tremulant depth.

```
S e l e c t  V o i c e  N r . :  2 0
G O S P E L  O R G A N  I
( T r e m u l a n t D e p t h : 8 0 )
```

4. With the UP and DOWN buttons select the instrument whose tremulant depth is to be changed, then press ENTER. The display will now show the following text.

```

Voice :
20 GOSPEL ORGAN I
Tremulant Depth: 80

```

Depending on the selected instrument and the tremulant depth (previously) set by you, the grey marked text may differ from the example.

5. With the UP and DOWN buttons the value of the tremulant depth of the selected instrument can be changed.
6. Setting the correct value for the tremulant depth, can be confirmed by pressing ENTER. To indicate that the selection is being stored, the display will then, briefly, show the text "Storing Data".

```

Storing Data...

```

After storing the data you will automatically be returned to the submenu.

```

> Instrument Volume
  Instrument Bass
  Instrument Treble
√ Instr Volume Left

```

### Instr. Trem Speed

It is possible for certain instruments to turn a tremulant on or off. These instruments are marked with an asterisk(\*) behind the instrument number in the instrument list (see Appendices).

On instruments with the possibility of turning a tremulant on or off, the tremulant speed can be set.

The value of the tremulant speed can be changed in 128 steps from 0 (no change in pitch) to 127 (about 9 changes per second, a very fast tremulant).

Changing the “Trem. Speed” (tremulant speed) of an instrument is done as follows:

1. Press the MENU button to get to the main menu and select the menu item “Advanced Settings”, with the UP and DOWN buttons.

```
^  C h a n g e  M i d i  C h a n ' s
   P a r t  S e t t i n g s
   R e c e i v e  M i d i  M s g ' s
v> A d v a n c e d  S e t t i n g s
```

2. Then press ENTER. The display will now show the (sub)menu below. Select the item “Instr. Trem Speed” with the UP and DOWN buttons, then press ENTER.

```
^  I n s t r  V o l u m e  S p e e d
   I n s t r u m e n t  C - C i s
   I n s t r .  T r e m  D e p t h
v> I n s t r .  T r e m  S p e e d
```

3. When an instrument whose tremulant cannot be turned on or off (and consequently whose speed cannot be set either) has been selected, the fourth line will read “(TremulantSpeed:No)”.

```
S e l e c t  V o i c e  N r . :  1 9
C H O I R  2

( T r e m u l a n t  S p e e d : N O )
```

When an instrument whose tremulant can be turned on or off (instruments with tremulant) has been selected, the display will show the present value of the tremulant speed.

```
S e l e c t  V o i c e  N r . :  2 0
G O S P E L  O R G A N  I

( T r e m u l a n t  S p e e d : 4 0 )
```

4. With the UP and DOWN buttons, select the instrument whose Tremulant speed is to be changed, then press ENTER. The display will now show the following text.

```

Voice :
20 GOSPEL ORGAN I
Tremulant Speed : 40

```

Depending on the selected instrument and the tremulant speed (previously) set by you, the grey marked text may differ from the example.

5. With the UP and DOWN buttons the value of the tremulant speed of the selected instrument can be changed.
6. Setting the correct value for the tremulant speed, can be confirmed by pressing ENTER. To indicate that the selection is being stored, the display will then, briefly, show the text "Storing Data".

```

Storing Data . . .

```

After storing the data you will automatically be returned to the submenu.

```

> Instrument Volume
  Instrument Bass
  Instrument Treble
√ Instr Volume Left

```

### Instrument Tuning

To prevent the sound module from becoming a too rigid and sterile sounding device, the sound module has been devised in such a way that the various instruments can be slightly detuned with respect to each other, or to the device to which they are connected. This gives the sound module (if necessary in combination with the device to which the sound module is connected) a "wider", "livelier" character.

An instrument is tuned at A=440Hz (the standard pitch for musical instruments) when the value of "Instrument Tuning" is 0.

At an "Instrument Tuning" value of -64 the instrument is about half a tone lower than the standard pitch whereas at a value of +64 the instrument is about half a tone higher.

Changing the “Instrument Tuning” (pitch) of an instrument is done as follows:

1. Press the MENU button to get to the main menu and select the menu item “Advanced Settings”, with the UP and DOWN buttons.

```
^  C h a n g e  M i d i  C h a n ' s
   P a r t  S e t t i n g s
   R e c e i v e  M i d i  M s g ' s
v > A d v a n c e d  S e t t i n g s
```

2. Then press ENTER. The display will now show the (sub)menu below. Select the item “Instrument Tuning”, with the UP and DOWN buttons, then press ENTER.

```
^  I n s t r u m e n t  C - C i s
   I n s t r .  T r e m  D e p t h
   I n s t r .  T r e m  S p e e d
> I n s t r u m e n t  T u n i n g
```

3. The display will now show the text below:

```
S e l e c t  V o i c e  N r . :  I
   F L U T E
(T u n i n g  V o i c e :  + 5  )
```

(The value 5 may be different.)

4. Select the instrument whose tuning voice is to be changed, with the UP and DOWN buttons, then press ENTER. The display will now show the following text.

```
V o i c e :
2 0  G O S P E L  O R G A N  1
T u n i n g  V o i c e :  + 5
```

Depending on the selected instrument and the tuning voice (previously) set by you, the grey marked text may differ from the example.

5. With the UP and DOWN buttons the value of the item “Instrument Tuning” (pitch) of the selected instrument can be changed.



6. Setting the correct value for “Instrument Tuning”, can be confirmed by pressing ENTER. To indicate that the selection is being stored, the display will then, briefly, show the text “Storing Data”.

```
Storing Data . . .
```

After storing the data you will automatically be returned to the submenu.

```
> Instrument Volume  
Instrument Bass  
Instrument Treble  
v Instr Volume Left
```

## Play demo song

The sound module can automatically play (back) one demo(nstration) melody. Playing the demo song will give an impression of the tonal wealth of the sound module.

Playing the demo song can also be used to check whether the audio connection between the sound module and the reproduction device (organ) is correct (no MIDI connection is needed to play the demo song).

The demo song can be played back like this:

1. Press the MENU button to get to the main menu and select the menu item “Play Demo Song”, with the UP and DOWN buttons.

```
^ Part Settings  
Receive Midi Msg's  
Advanced Settings  
v > Play Demo Song
```

2. Then press ENTER. The display will now show the text below and start playing the demo song straight away.

```
Playing Demo Song  
  
Press Any Key  
To Stop
```

3. The playing of the demo song can be stopped by pressing one of the four buttons. The sound module will immediately stop playing the demo song and return to the main menu.

```
> C h a n g e   I n s t r u m e n t  
  C h a n g e   M i d i   C h a n ' s  
  P a r t   S e t t i n g s  
v R e c e i v e   M i d i   M s g ' s
```

## Module data

If the last item of the main menu is selected, the display will show the major data of the sound module.

This is done as follows:

1. Press the MENU button to get to the main menu and select the menu item "About The Module" (Module data) with the UP and DOWN buttons.

```
^ R e c e i v e   M i d i   M s g ' s  
  A d v a n c e d   S e t t i n g s  
  P l a y   D e m o   S o n g  
> A b o u t   T h e   M o d u l e
```

2. Then press ENTER. The display will show the text below.

```
      J O H A N N U S  
C L A S S I C   S O U N D   M O D U L E  
      C S M - 1 2 8  
      V e r s i o n   1 . 2
```

On a sound module with a renewed program, the grey marked text may show another date.

3. This screen can be left again by pressing one of the four buttons. The sound module will then return to the main menu.

```
> C h a n g e   I n s t r u m e n t  
  C h a n g e   M i d i   C h a n ' s  
  P a r t   S e t t i n g s  
v R e c e i v e   M i d i   M s g ' s
```

## Maintenance

The wooden case is finished partly in veneer and partly in solid wood.

The case can be wiped off dry with an ordinary duster or with a slightly damp cloth or a shammy. After this, it can be rubbed dry with a non-fluffy cloth.

We advise against the use of furniture polish, because this will damage the varnish. Direct sunlight may cause the case to discolour. This applies especially to natural oak cases.

## Warranty

You were given a warranty when you bought your sound module. Please, read the warranty conditions with care and send the bottom part of the warranty as soon as possible to JOHANNUS Orgelbouw b.v. at Ede. Once again we want to draw your attention to the fact that the warranty does not cover damage caused by alterations to the sound module or improper use.

# Appendices

## Technical specifications

Instruments (max. 128 polyphonic) . . .	orchestral instruments	12
	electronic instruments	11
	keyboard instruments	4
	percussion instruments	4
	organ stops	13
	special effects	4
Memory . . . . .	128 (8 x 16, M1 to M8)	
	128 (8 x 16, G1 to G8, callable with capture pistons of the organ)	
MIDI channels . . . . .	16	
MIDI compatibility . . . . .	MIDI specification 1.0	
General Volume setting . . . . .	11 steps	
Tremulant . . . . .	On/Off (17 instruments)	
Mute modes . . . . .	On/Off/Solo (per instrument)	
MIDI message switches . . . . .	Instrument Changes On/Off (programmable)	
	Preset Changes On/Off (programmable)	
	General Volume On/Off (programmable)	
	Expression Pedal On/Off (programmable)	
Voicing possibilities . . . . .	Volume setting (per instrument, programmable)	
	Bass setting (per instrument, programmable)	
	Treble setting (per instrument, programmable)	
	Volume left setting (per instrument, programmable)	
	Volume right setting (per instrument, programmable)	
	C-Cis effect Off/C-Cis/Cis-C (17 instruments, programmable)	
	Tremulant depth (per instrument, programmable)	
	Tremulant speed (per instrument, programmable)	
	Detuning (per instrument, programmable)	
Demo song . . . . .	1	
Supply voltage . . . . .	9Vdc (mains adapter)	
Max. power consumption . . . . .	6Watts	
Stereo output (RCA) . . . . .	10kΩ/50mV	
MIDI connections . . . . .	3 (IN - THRU - OUT)	
Display . . . . .	4x20 character LCD	
Control buttons . . . . .	4 (UP, DOWN, MENU, ENTER)	
Dimensions (W x H x D) . . . . .	21,6 x 9,5 x 19,3cm (8½ x 3¾ x 7½inch)	
Weight . . . . .	1,6kg (3,5lbs)	
Accessories . . . . .	Mains adapter 9Vdc/1A	
	Audio cable	
	MIDI cable	

# MIDI Implementation chart

JOHANNUS Expander Module  
CSM-128

## MIDI Implementation Chart

Date: Oct. 1999  
Version 1.20

Functions	Transmitted	Recognized	Remarks
<b>Basic Channel</b> Default Changes	N N	1 - 16 1 - 16 each	Memorized
<b>Mode</b> Default Messages Altered	N N * * * * *	Mode 3 N N	
<b>Note Number</b> True voice	N * * * * *	36 - 96 36 - 96	
<b>Velocity</b> Note ON Note OFF	N N	9nH v=1 - 127 9nH v=0, 8nH v=*	*=irrelevant
<b>After Touch</b> Keys Channels	N N	N N	
<b>Pitch Bend</b>	N	N	
<b>Control Change</b>	7 N 11 N 100/101/6 N 100/101/6 N	Y Y Y Y	General volume Expression pedals Pitch Transposer
<b>Program Change</b> :True#	N * * * * *	0 - 47 0 - 47	
<b>System Exclusive</b>	Y	Y	Capture settings
<b>Common</b> :Song Pos :Song Sel :Tune	N N N	N N N	
<b>System Real Time</b> :Clock :Commands	N N	N N	
<b>Aux</b> :Reset All Controller :Local On/OFF :All Notes OFF :Active Sense :Reset	N N N N N	N N Y N N	
<b>Notes</b>			

**Mode 1:** OMNY ON, POLY  
**Mode 3:** OMNY OFF, POLY

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

Y = YES  
N = NO

## Menu survey

This survey indicates how to move to a certain screen to reach a required menu or an item to change a setting.

- Initial screen
  - ↳ Main menu
    - ↳ Change instruments
      - ↳ Part list
        - ↳ Store Data
    - ↳ Change Midi Chan's
      - ↳ Part list
        - ↳ Store Data
    - ↳ Part Settings
      - ↳ Tremulant Off/On
        - ↳ Select Part
          - ↳ Change Tremulant
            - ↳ Store Data
      - ↳ Mute Off/On/Solo
        - ↳ Select Part
          - ↳ Change Mute
            - ↳ Store Data
    - ↳ Receive Midi Msg's
      - ↳ Instrument Changes
        - ↳ Receive/Don't Receive Instrument Change
          - ↳ Store Data
      - ↳ Preset Changes
        - ↳ Receive/Don't Receive Preset Change
          - ↳ Store Data
      - ↳ General Volume
        - ↳ Receive/Don't Receive General Volume Change
          - ↳ Store Data
      - ↳ Expression Pedal
        - ↳ Receive/Don't Receive Expr. Volume Change
          - ↳ Store Data
    - ↳ Advanced Settings
      - ↳ Instrument Volume
        - ↳ Select Part
          - ↳ Volume
            - ↳ Store Data
      - ↳ Instrument Bass
        - ↳ Select Part
          - ↳ Bass
            - ↳ Store Data
      - ↳ Instrument Treble
        - ↳ Select Part
          - ↳ Treble
            - ↳ Store Data
      - ↳ Instrument Volume Left
        - ↳ Select Part
          - ↳ Volume Left
            - ↳ Store Data
      - ↳ Instrument Volume Right
        - ↳ Select Part
          - ↳ Volume Right
            - ↳ Store Data
      - ↳ Instrument C-Cis
        - ↳ Select Part
          - ↳ C-Cis
            - ↳ Store Data
      - ↳ Instr. Trem Depth
        - ↳ Select Part
          - ↳ Tremulant Depth
            - ↳ Store Data
      - ↳ Instr. Trem Speed
        - ↳ Select Part
          - ↳ Tremulant Speed
            - ↳ Store Data
      - ↳ Instrument Tuning
        - ↳ Select Part
          - ↳ Tuning Voice
            - ↳ Store Data
    - ↳ Play Demo Song
      - ↳ Playing of the demo song
    - ↳ About the module
      - ↳ Module data

## Instrument list

With the sound module 48 extra instruments can be added to your organ.  
The instruments can be divided into various kinds as shown below.

INSTRUMENT NUMBER	INSTRUMENT NAME	TYPE OF INSTRUMENT
1	FLUTE	orchestral instrument
2	PICCOLO	orchestral instrument
3	RECORDER	orchestral instrument
4	PANFLUTE	orchestral instrument
5	HORN	orchestral instrument
6	CLARINET	orchestral instrument
7	ENGLISH HORN	orchestral instrument
8	OBOE	orchestral instrument
9	TRUMPET	orchestral instrument
10	CELLO	orchestral instrument
11	VIOLIN	orchestral instrument
12	TIMPANI	orchestral instrument
13	ORCH. STRINGS	electronic instrument
14	WARM STRINGS	electronic instrument
15	SYNTH STRINGS	electronic instrument
16	BRIGHT STRINGS	electronic instrument
17	BELL STRINGS	electronic instrument
18	CHOIR 1	special effect
19	CHOIR 2	special effect
20 *	GOSPEL ORGAN 1	electronic instrument
21 *	GOSPEL ORGAN 2	electronic instrument
22 *	TIBIA ORGAN	electronic instrument
23	HARPSICHORD	keyboard instrument
24	CELESTA 1	keyboard instrument
25	CELESTA 2	keyboard instrument
26	HARP	orchestral instrument
27	GLASSHARP	orchestral instrument
28	WOODHARP	orchestral instrument
29	HANDBELLS	orchestral instrument
30	CHRYSOGLOTT	percussion instrument
31	CHIMES	percussion instrument
32	CARILLON	percussion instrument
33 *	REED ORGAN	keyboard instrument
34 *	HARMONIC FLUTE 8'	organ stop
35 *	FLUTE CELESTE 8'	organ stop
36 *	VIOLA CELESTE 8'	organ stop
37 *	ENGLISH HORN 8'	organ stop
38 *	CLARINET 8'	organ stop
39 *	RANKET 8'	organ stop
40 *	TUBA 8'	organ stop
41 *	CHAMADE 8'	organ stop
42 *	TERZIAN II	organ stop
43 *	SESQUIALTERA II	organ stop
44 *	CANT. FIRM. II-IV	organ stop
45 *	FLUTE 8' + 2'	organ stop
46 *	PLENUM	organ stop
47	TRACKER ACTION 1	spec. effect (organ noise)
48	TRACKER ACTION 2	spec. effect (organ noise)