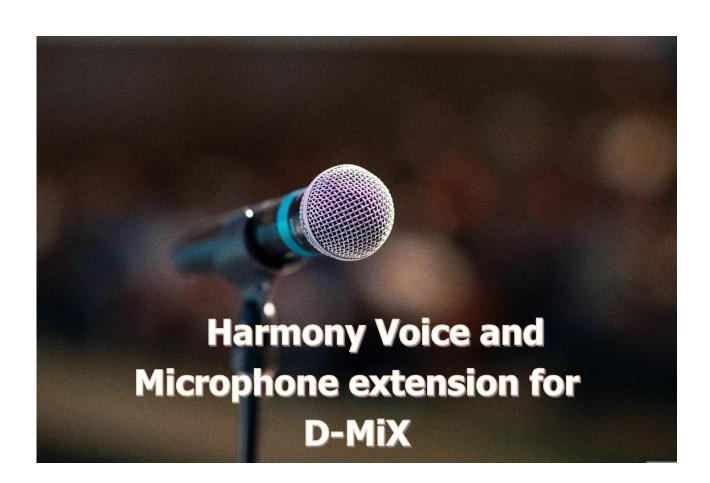


SEMPRA 2.0

Installation and playing instructions



www.boehm-organs.com

Harmony Voice and Microphone Extension for D-MiX Installation and playing instructions

Version 1.0 Item no. 41158AE

Status: 14.01.2023

The information contained in this documentation is subject to change without notice and does not represent a commitment on the part of Keyswerk Musikelektronik GmbH.

The description is based on the information available at the time of print.

Technical details are subject to change without notice compared to the descriptions, specifications and illustrations in this manual.

Keyswerk Musikelektronik GmbH cannot accept any liability for software errors and for incorrect information in the documentation and their consequences.

© Keyswerk 2023 All rights reserved

Responsible for the content **KEYSWERK Music Electronik GmbH**Warbersche Street 32

31675 Bückeburg

Germany

Tel.: 05722 905088 Fax: 05722 287555

Internet <u>www.boehm-organs.com</u> E-mail <u>info@boehm-organs.com</u>

Content

Installing the app and associated firm data	6
Preparing the installation stick (only if you have received the installation data online)	7
Insert the factory or self-configured installation stick into the SEMPRA	8
Update SEMPRA operating system (BOS)	8
Unpacking the installation data (only if you have received the installation data online)	9
Operating system update for the AMADEUS Pro-D sound module(s) (only if required)	10
Operating system update for the D-MiX preamplifier (only if required)	12
Install remaining app data	13
Unlock app (activation)	13
Connecting a microphone to the SEMPRA	14
SEMPRA SE10SE60	14
SEMPRA SE70SE100, 480SE600SE	14
Set input level for the microphone SE10SE60:	17
Set input level for the microphone SE70SE100 / 480SE600SE:	18
The "Microphone" mixer strip in the D-MiX mixing console	19
Semi parametric 5-band equalizer, compressor and noise gate for the microphone input	19
Call up 5-band EQ and compressor/noisegate parameters	20
Semi-parametric 5-band equalizer	21
Compressor and Noisegate	24
Menü für 5-Band EQ, Kompressor und Noisegate verlassen	27
Dedicated reverb and echo effects for microphone signal	27
Calling up vocal effects in the DSP menu	27
The Lead-Voice	30
Settings and effect assignments for the lead voice	30
Set reverb/echo DSP	31
Storage of settings for lead voice and separate reverb/echo DSP	32
HarmonyVoice	32
Editor for the HarmonyVoice functions	33
Switch HVoice on and off	33
Set HV modes	33
Formant and gender automatic	34
Automatic transpose	35
Humanizer	35
Vibrati for the HVoice voices	35
The 6 basic operating modes of the HarmonyVoice	36

1.	Tune (solo)	36
2.	Detune:	36
3.	Chord	37
4.	Harmony	37
5.	Vocoder solo	38
6.	Vocoder chord	38
Initia	alize vocal editor	39
Voca	al presets	39
Co	oupling to the SONG presets	40
U-	-1 als Standard	40
Sa	ve your own vocal presets	41
Se	elect vocal presets directly in the editor	42
De	elete user vocal presets	43
Sa	ve vocal presets to USB	43
Cont	trol vocal and Harmony Voice functions during live play	44
Sv	vitch HV on and off	44
Co	ontroller functions for microphone / Harmony Voice	45
Ta	ılk function	45
Sh	now Vocal Presets as Part	46
openo	dix: Overview Firm Vocal-Pesets	49

Singing with SEMPRA!

Singing is an expression of joie de vivre! Many of our customers also sing along with their playing on their SEMPRA organs and keyboards - or the other way around: they accompany their singing on the instrument.

With this app, your SEMPRA now gets an extremely versatile microphone section with the following features:

- a **5-band semi-parametric equalizer** for the D-MiX microphone input,
- an adjustable compressor for the microphone input,
- an adjustable **noise gate** for the microphone input
- custom reverb and echo effects for the microphone input,
- the **HarmonyVoice processor** with up to **4 additional voices** ("choir" voices derived from your singing voice) and 6 fundamentally different operating modes.

Equalizer, compressor and noise gate act directly on the microphone input of the D-MiX, only afterwards the signal reaches the HarmonyVoice processor.

The equalizer, compressor and noise gate settings are stored in the mixer presets.

For the **HarmonyVoice** Processor (**HV for** short), <u>own HV factory</u> presets are available, and up to 64 own HV user presets can be stored. The HV presets can be coupled to the SONG preset registrations of the SEMPRA and called up from there. There is a dedicated preset coupler for the HV presets.

The basic activity of the HV (i.e. "HV on" or "HV off") is stored in the SONG presets independently of the HV presets!

We call the "dry" signal of the microphone the "**LeadVoice**". This is your voice, with which you sing into the microphone. This signal can be proportionally applied to the global reverb of the SEMPRA or optionally to a separate effect unit (here called "Echo") with various reverb and echo programs. The LeadVoice is adjustable in volume and panorama and, if the Quadrophony app is available, also in front/rear fading.

Depending on the operating mode of the HV, the LeadVoice can also be switched off. In this case, only the voice(s) generated by the HV can be heard. Also depending on the operating mode, up to four additional "(Harmony)Voices" (HVoices for short) can be generated, which are derived from the LeadVoice and which can be controlled via the keyboard or e.g. by a playback (Midifile) track, depending on the mode or setting.

For all HVoices together the volume and likewise the reverb and/or echo portion can be adjusted. In addition, each HVoice has a variety of its own parameters, which are of course all adjustable!

A switchable and adjustable **Humanizer** allows you to achieve more naturalness in the voices produced by the HarmonyVoice.

So much for a quick overview of what you get with this comprehensive app. But before we go into detail about all the possibilities, let's first install the app and the associated data.

Installing the app and associated firm data

With the data package "Harmony Voice and Microphone Extension for D-MiX" you receive an unlock code for the actual App (folder "Appcode") and the factory data for the Harmony Voice (the factory DSP presets for the Harmony Voice, two button macros and a button preset for switching the HarmonyVoice on/off via F-button). If you receive the data online from us, you will get them in a packed archive INSTALL.ARC. This archive has to be unpacked to a (SEMPRA-formatted) USB stick (e.g. the installation stick you received with your instrument). The process is also described below.

For the operation of the HarmonyVoice App, at least the following operating system versions of the SEMPRA itself or the D-MiX preamplifier are also required:

SEMPRA Firmware (BOS): min. version 2.1 from 21.12.22

D-MiX Firmware: min. version 1.3 from 15.12.22

It is recommended to update the operating system of the AMADEUS PRO-D sound modules at the same time, if an older version than the following one is currently installed:

AMADEUS Pro-D firmware: min. version 1.3 from 26.12.22

You can determine the currently installed operating system versions for the SEMPRA itself and the existing sound modules or the D-MiX in the **BMC menu**:

SEMPRA firmware (BOS version):

[MENU] -> System setups (8) -> Device info (3):

Among other information, the currently installed version of the SEMPRA operating system is displayed. In this example, the file is already up to date (version 2.1 from 21.12.2022) and no update is required.

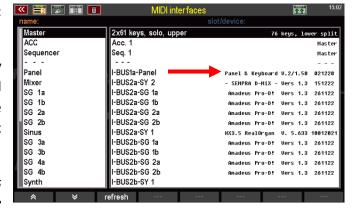


D-MiX and AMADEUS PRO-D firmware:

[MENÜ] -> Parts & MIDI (7) -> MIDI-Anschlüsse (7):

This display shows among other things the internally integrated sound modules (AMADEUS Pro-D and also the RealOrgan) as well as the D-MiX with the respective installed software versions (Vers. X.xx from xx.xx.xx).

Note: For the AMADEUS sound modules 2 entries are displayed each, because these modules are addressed via two internal MIDI interfaces each.



Compare the versions displayed for your instrument with the above-mentioned minimum versions. In the example image here, sufficiently current versions are already installed for AMADEUS PRO-D and D-MiX. An update of the operating systems would not be necessary here.

If your instrument currently displays older software versions than the ones shown in our picture, the operating systems have to be updated first. The installation is also explained below.

<u>Temporarily, the required operating system updates are attached to the app data and are thus also located on the USB sticks issued with the Harmony Voice App.</u>

If you have received the app installation data online or a USB stick without these operating system updates from us, you can download the new operating system versions from our website if required: https://www.keyswerk.de/software/

Preparing the installation stick (only if you have received the installation data online)

- If you have received the installation data for the app online (e-mail/WeTransfer), please save the transmitted INSTALL.ARC archive file to your existing SEMPRA installation stick or also another, <u>SEMPRA-formatted USB stick</u>.
- First check the current operating system versions of the SEMPRA or the AMADEUS Pro-D modules
 and the D-MiX as described in the previous section. If updates are necessary, download the
 necessary ZIP files with the updates for the instrument or the sound modules/D-MiX from the Böhm
 website.

It is best to open the ZIP files directly on the computer and copy the files contained directly to the top directory level of the installation stick.

The stick should now contain the following data, among others:

in any case:

INSTALL.ARC: installation archive with the app data

Only if updates are required:

BOEHM.BOS: SEMPRA Operating system

Update.txt: Text file for operating system version history. This file does not have to be copied

onto the installation stick. It is not installed but serves only for information. The file

can be read on the PC with a text program.

Pro-D.sgs

8000_F16.bin Files for the AMADEUS Pro-D operating system update

D-Mix.sgs

8000_M16.bin Files for the operating system update D-MiX preamplifier

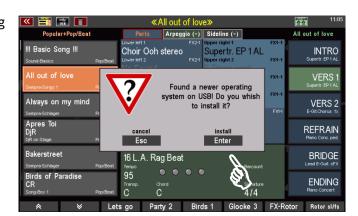
Insert the factory or self-configured installation stick into the SEMPRA

Attention: in case of a self-created installation stick with INSTALL.ARC file, please first remove currently already inserted USB sticks from the SEMPRA (e.g. the template stick to the Arpeggiator). This ensures for the following unpacking of the installation files that the installation stick itself is registered as **USB1** drive. A possibly plugged receiver for a wireless keyboard can remain at the SEMPRA!

• Now insert the supplied or self-created installation stick into the SEMPRA.

Update SEMPRA operating system (BOS)

- If a newer version of the SEMPRA operating system than the one currently installed is found on the installation stick, the display asks whether the new version should be installed:
- Confirm the query with [ENTER]. The new operating system is now loaded.



The successful installation is displayed.
 Confirm with [ENTER].

ATTENTION: The query/installation of the operating system is omitted if a version with at least the state of the file on the stick is already installed on the SEMPRA.



Unpacking the installation data (only if you have received the installation data online)

Note: This step is not necessary if you have received a factory installation stick. In this case, the data is already unpacked on the stick.

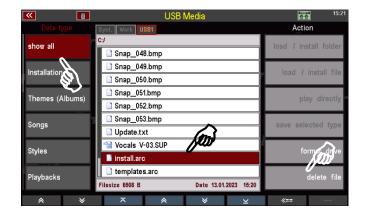
- If you have previously copied an INSTALL.ARC file to the installation stick, the display now asks whether the archive file should be unpacked to USB1. Confirm the query with [ENTER].
- The directory is now unpacked.



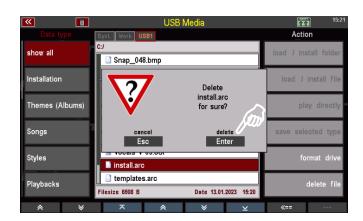
• When the process is complete, press the **[USB]** button to enter the USB menu.

Attention: In order to avoid the question of unpacking the INSTALL.ARC file every time the stick is inserted in the future, this file can now be deleted from the stick first:

- If necessary, first tap Show all in the row
 File type on the left.
- Place the cursor on the file INSTALL.ARC
- Tap Delete file on the right side of the display.



 A confirmation prompt follows. Confirm this with [ENTER] to finally delete the file.



Now we continue with the actual installation:

If you have not already done so, press the [USB] button to call up the USB menu of the SEMPRA:

Tap **Show All** on the left to see the total contents of the USB1 installation stick:



In this example you can see the content of a self-created or the newly delivered installation stick to the app incl. the update files for the operating systems of the organ, the sound modules and the D-MiX.

The representation in the display of your organ may of course differ depending on whether the operating system updates are available on the stick and whether there may be other data on the stick.

Operating system update for the AMADEUS Pro-D sound module(s) (only if required)

If necessary (see page Installing the app and associated firm data6), you should now first perform the operating system update for the installed AMADEUS sound module(s) in your SEMPRA.

• In the USB menu, in the list of **file types** on the left, scroll down to the **Operatingsystem** field and tap on it (field will turn red). In the center you will now see only folders and such files that belong to the operating system updates.

 Place the cursor on the file Pro-D.sgs and tap the Load/Install file field on the right.



Es folgt eine Sicherheitsabfrage. Bestätigen Sie diese mit [ENTER].



 If there are several AMADEUS Pro-D sound modules, you will now be asked for which existing modules the update should be performed. Select "all soundgroups" and confirm with [Enter].



 The new AMADEUS operating system is now loaded. You can follow the status in the display.



• When the display box disappears again, the update is finished.

Operating system update for the D-MiX preamplifier (only if required)

If necessary (see page Installing the app and associated firm data6), please perform the operating system update for the D-MiX now:

- On the left side of the USB menu, the file type **Operatingsystem** is still selected (field is displayed in red).
- Now place the cursor on the file
 D-Mix.sgs and tap the Load/Install file
 field on the right again.



 A confirmation prompt follows here as well. Confirm this with [ENTER].



 The new D-MiX operating system is now loaded. You can follow the status in the box on the display.



• When the installation process is finished (the box disappears), please restart the SEMPRA once!

Note: The SEMPRA now reports in the startup display with the new SEMPRA version <u>2.1</u>
The D-MiX now uses its previously installed new operating system. If you call up the BMC menu **MIDI-Slots** again, you can read the newly installed version here.

Install remaining app data

- Tap in the USB menu on the left in the column File Type on the field Installation.
 You will now see the installation folder
 59358 HarmonyVoice-Presets in the middle.
- Tap Load/Install Folder on the right and confirm the safety question with [Enter].
 The factory data for the Harmony Voice will now be installed.

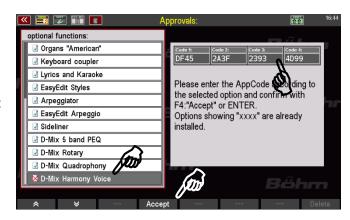


• Now exit the USB menu with the [USB] button or via the [ESC] button.

Unlock app (activation)

Now we still have to do the actual activation of the app:

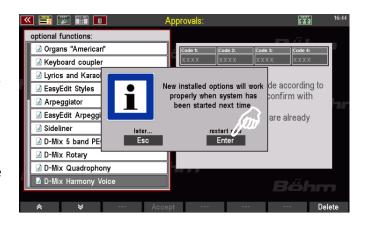
- Call up the BMC menu with the [MENU] button and change here to the System setups (8) -Approvals (4) menu.
- Scroll down the list of unlocks on the left side to the entry **D-MiX Harmony Voice** and place the cursor on it.
 This entry is currently still marked with a red X. In the fields on the right, the 16-digit unlock code for the app on the stick should already be preloaded.



- You may also have received the code in writing, e.g. on the invoice. In this case, please enter the
 code in the four fields on the display using the number/letter keys on the right of the control panel
 or an USB keyboard that may be connected.
- Now confirm the entry of the code with the [F button 4] Accept below the display. The code is
 accepted, and the app is activated. In the list on the left, you will now find a green check mark in
 front of the entry D-Mix Harmony Voice.

- Exit the menu via the [ESC] button. The following note appears:
- Confirm with [ENTER]. The SEMPRA is now restarted.

All data is now installed, and the new functions are ready to play.

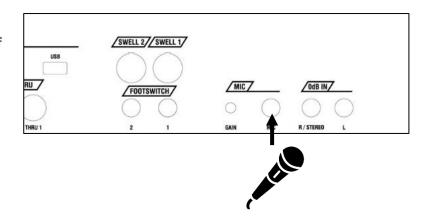


Connecting a microphone to the SEMPRA

To use the new features of the SEMPRA's extended microphone input and the Harmony Voice, you must of course first connect a microphone to the instrument.

SEMPRA SE10...SE60

On SEMPRA models SE10...SE60, you will find the microphone input on the back of the top of your instrument (SE10...SE60):



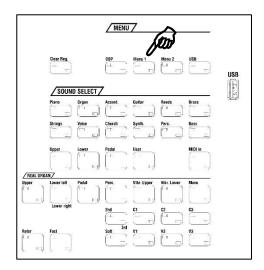
SEMPRA SE70...SE100, 480SE...600SE

On these models, you will find the microphone input on the right side profile of the control panel:

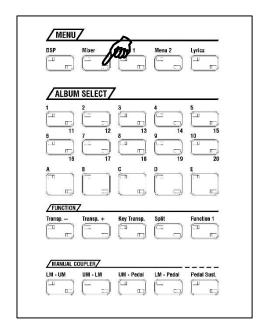


- Connect the microphone to the connector socket (6.3 mm jack plug).
 Attention: No microphones that require 48V phantom power can be used!
- Now call up the D-MiX mixer, namely...

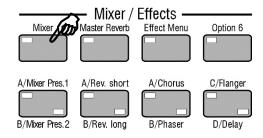
...with the **[Menu 1]** button at the top right of the control panel (SE10...SE60).



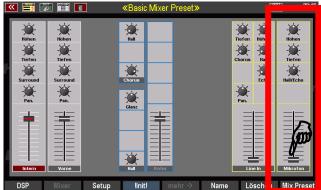
...or via the **[Mixer]** button on the left side of the center control panel (SE70...SE100)



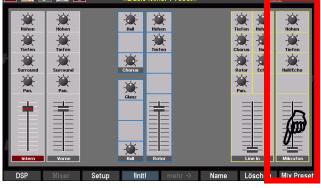
or via the **[Mixer]** button on the top left of the control panel (480SE...600SE).



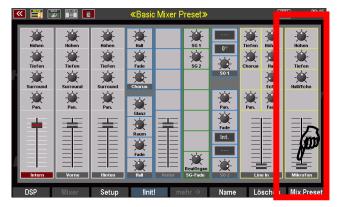
Depending on the SEMPRA model or equipment of the D-MiX preamplifier with additional app extensions, the representation of the mixer in the display of your instrument may differ. Some possible representations:



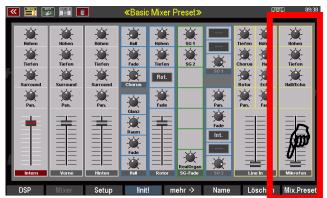
D-MiX Basic version



Basic version with D-MiX rotor



D-MiX with Quadro/Single Outs without rotor



Full equipment incl. Quadro/Single Outs



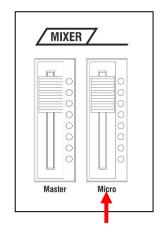
D-MiX full equipment e.g. with a SE100/600SE

On the far right of the mixer you see the microphone mixer strip. In the factory default setting of the D-MiX, the level slider of this mixer strip is initially set to "0" (lower stop).

Tap the slider and slide it up to a medium volume with your finger.

On SEMPRA models SE10...SE100, you can also adjust the setting with the **[Micro]** slider at the top left of the control panel. This "hardware" slider corresponds in function to the volume control for the microphone input in the mixer. As you move the slider on the control panel, you can watch the slider in the mixer display follow the slider movement.

Note: Models 480SE...600SE do not have a microphone control on the control panel. However, the function can be assigned to one of the drawbars in a control preset. See chapter "Button/controller assignments" in the main operating manual.

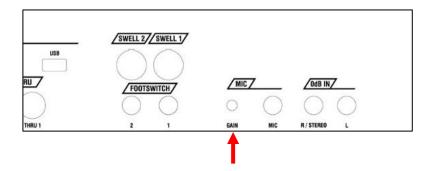




• Now speak or sing into the microphone (if necessary, switch on the microphone if there is a mute button!). You should now hear your voice through the SEMPRA loudspeakers.

Set input level for the microphone SE10...SE60:

Now first set the input level for the microphone with the potentiometer [GAIN] next to the
microphone jack on the rear panel. Speak or sing while adjusting the input level so that the
microphone signal does not distort even when you sing louder.

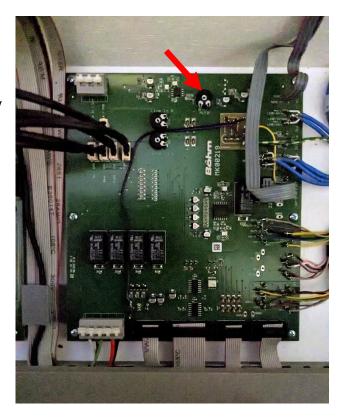


• You can then use the [Micro] volume control at the top left of the control panel or in the mixer display to set the desired final volume for the microphone signal. It should be about as loud, or slightly louder, if necessary, than the audio signal of your playing on the SEMPRA, so that the vocals come through well or stand out from the playing.

Set input level for the microphone SE70...SE100 / 480SE...600SE:

• The input sensitivity of the microphone input has already been internally set to a practical value at the factory.

If necessary (e.g. if contrary to expectations the input signal of the microphone distorts or if no sufficient microphone volume can be reached even with the microphone volume control in the D-MiX display turned all the way up), the level can be adjusted by means of a potentiometer on the I/O board of the D-Mixer inside the organ. You will find the board on the right side behind the manual block on the top panel floor after opening the top panel. Speak or sing into the microphone and adjust the input level with the marked potentiometer "MIKE" by means of a small screwdriver so that the microphone signal does not distort even when singing louder.



• With the [Microphone] slider at the top left of the control panel (SE70...SE100) or in the mixer display (or e.g. with 480SE...600SE, which do not have a microphone slider on the control panel) with one of the other sliders/drawbars to which you have assigned the microphone volume via a slider preset (see chapter button and slider presets in the main manual) you can then set the desired final volume for the microphone signal. It should be about as loud as, or slightly louder than, the audio signal of your playing on the SEMPRA, so that the vocals come through well or stand out from the playing.

The "Microphone" mixer strip in the D-MiX mixing console

Now let's take a closer look at the microphone mixer strip in the D-MiX mixer. The functions and controls are similar to those of a "real" mixing console. From top to bottom you will find:

Treble control: Tone control for the high frequencies

Bass control: Tone control for the low frequencies

Reverb/Echo control: Proportionally controls the overall intensities of the **reverb**

(global reverb of the organ) and **Echo** (dedicated reverb

and echo DSP for the microphone input (see page 27).

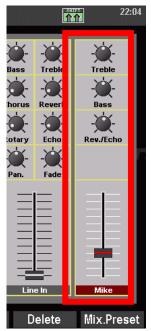
Volume fader: Adjust the overall volume for the microphone signal

(incl. LeadVoice and also HarmonyVoice voices).

This control corresponds to the microphone slider on the top left on the control panel of the SE10...SE100 models, or a slider that can be assigned with the microphone volume

via the BMC menu button & slider presets (e.g. for

480SE...600SE).



Also, a compressor and a noise gate are already integrated in the microphone input. These basic functions of the microphone mixer are available by default in the D-MiX, i.e. even <u>without</u> unlocked app **Harmony Voice** and microphone extension. However, the parameters for compressor and noisegate are not yet editable without the app unlock.

All functions of the microphone mixer strip are stored in the **mixer presets** of the D-MiX like the other mixer parameters of this display page.

Semi parametric 5-band equalizer, compressor and noise gate for the microphone input

With the activation of the **Harmony Voice and Microphone extension** app, an advanced sound control is available for the microphone input in the form of a **semi-parametric equalizer with 5 adjustable frequency bands.** With this equalizer, you can influence the sound of the microphone signal in a much more differentiated way than just with the two standard controls for bass and treble. This allows you to perfectly adjust the sound of the microphone either to the acoustic conditions of the room in which you are making music or, of course, to your own taste.

In addition, the parameters for the **compressor** and the **noise gate** become accessible in the micro input, so they can be set according to your own requirements.

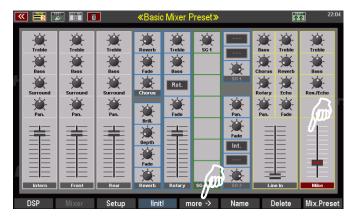
Equalizer, compressor and noise gate act directly on the microphone input, only afterwards the signal reaches the HarmonyVoice processor.

The parameters for the extended equalizer, compressor and noisegate are stored in the mixer **presets**, just like the parameters of the microphone mixer strip itself.

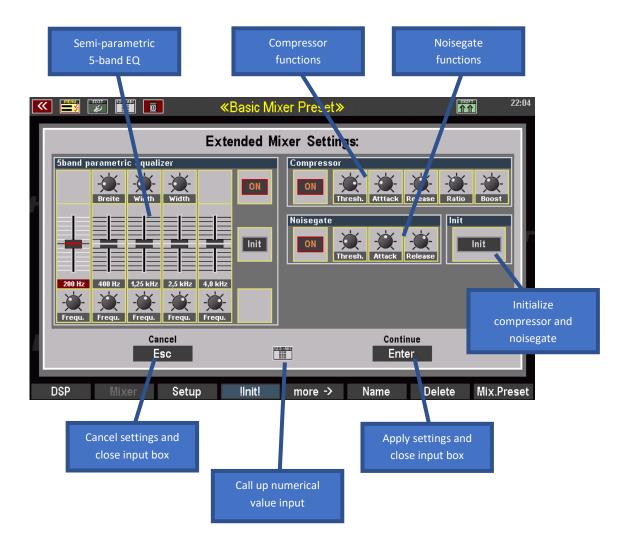
Call up 5-band EQ and compressor/noisegate parameters

• Tap on one of the controls in the microphone mixer strip of the mixer display (selects this mixer strip).

On the **F button [5]** below the display, the **[more->]** function now becomes active.



Tap the button to open the Advanced Mixer Settings input box with the sections 5-Band EQ.
 Compressor and Noisegate. The corresponding setting box with the parameters for these three function areas is displayed:



In the left area of this display you will find the functions for the **partially parametric 5-band equalizer**. At the top right are the parameters for the **compressor** and below those for the **noise gate**.

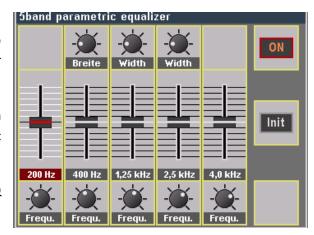
Let's look at the functional areas and the respective parameters in detail:

Semi-parametric 5-band equalizer

This equalizer allows you a very differentiated sound processing for the microphone signal. This allows you to boost or cut the frequency range in the sound image either very broadband or very narrowly defined.

The equalizer offers 5 adjustable frequency ranges. From left to right, these are the basses, three fully parametric mid bands (lower, middle and upper mids) and the treble.

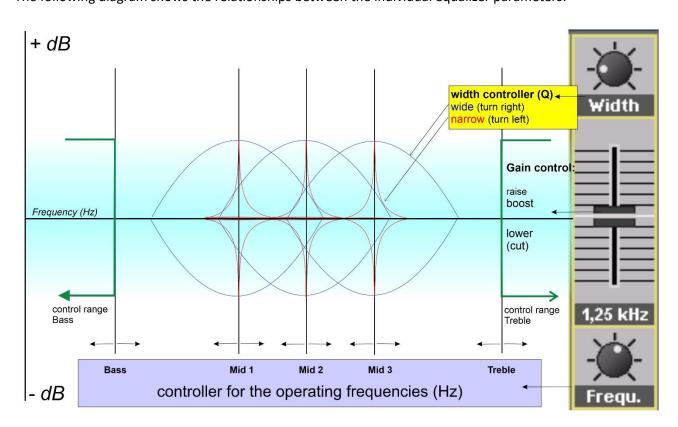
The [ON] switch is used to globally switch the 5-band EQ on or off.



With the [INIT] switch, the equalizer can be reset to the neutral home position at any time.

The operation of the EQ parameters

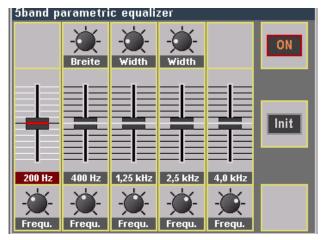
The following diagram shows the relationships between the individual equalizer parameters:



We speak of a <u>semi-parametric</u> EQ, because for the lowest frequency band (bass, left column) and the highest band (treble, right column) only the cutoff frequency for the effect of the respective control can be defined (the controls [frequency] at the bottom of the picture).

In the case of the **Bass** control, the <u>entire frequency</u> range <u>below</u> the cutoff frequency set with the **Frequency** control is affected.

In the case of the **Treble** control, the <u>entire frequency</u> range above the set cutoff frequency is affected.



Bass I ----- Mids ----- I Treble

The **three mid bands of** the EQ, on the other hand, are <u>fully parametric</u>. In addition to the operating frequency (**Frequency** control), you can also set the width - often referred to as **Q** (Quality) - of the influenced frequency range (the three controls labeled **Width**). These controls determine the extent to which frequencies above or below the set operating frequency are also influenced:

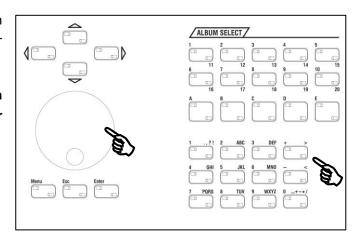
The further you turn the **Width** slider to the <u>left</u>, i.e. counterclockwise, the narrower the frequency range above and below the selected operating frequency that is influenced by the slider for this band. In this way, for example, disturbing resonance frequencies in the sound image can be eliminated in a very targeted manner.

The further you turn the **width controls** <u>clockwise</u>, the more frequencies above and below the set operating frequency are included in the control. This allows for broadband emphasis or suppression of frequency ranges. Such settings serve to influence the timbre of the signal itself.

With the **5 sliders** in the center you can emphasize (slide the slider up from the center) or deemphasize (slide the slider down from the center) the selected frequency range.

To adjust one of the rotary or slider controls, tap on it or select it with the cursor keys. The selected slider is highlighted and can be adjusted.

Now make the desired setting e.g. with the [data wheel] or the [+] / [-] buttons in the numeric/letter keypad to make the desired setting.



20

You can also enter the parameter values numerically. Tap the desired controller and then tap the keypad icon at the bottom between **ESC** and **ENTER**.

The number pad is displayed. Here you can now enter a numerical value between **0** and **28**. Confirm the entry with **ENTER**. The value is accepted, and the number pad is hidden again.

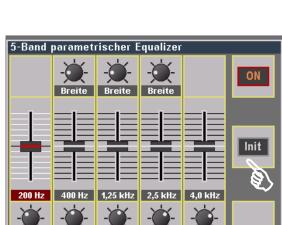
Keep in mind that the values entered do not

represent the absolute parameter values, but merely represent the total input range of the respective parameter, gridded in 28 steps.

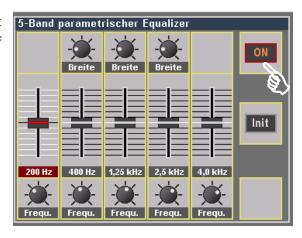
It is best to try out the various parameters of the **partially parametric 5-band equalizer in** detail to familiarize yourself with the effect.

You can use the **[Init]** switch to return directly to the neutral home position of the equalizer at any time, if necessary.

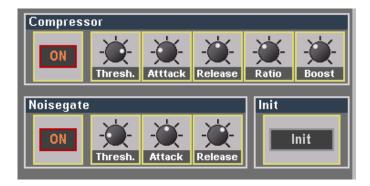
Tap Init and confirm the security prompt with [Enter]
 if you want to perform the initialization.



To compare your found setting with the unaffected direct signal, simply switch the 5-band EQ alternately on and off with the [ON] button.



Compressor and Noisegate



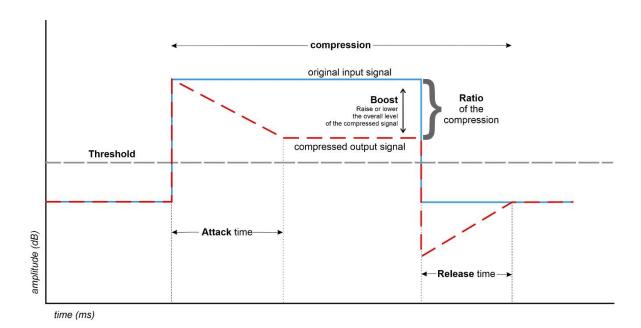
Let us first clarify the terms or functions:

Compressor

A **compressor** reduces the differences between the loud and quiet parts of the audio signal. It compresses the dynamic range of the signal or "squeezes" it. The maximum level of the signal is reduced above a certain threshold (adjustable with the Threshold parameter). In the case of microphone signals, for example, a compressor ensures better intelligibility through a more even volume level in the signal, even if you sing or speak into the microphone at a very fluctuating volume.

The compressor should always be used with eye (or ear) measurement. Then it can give the final touch to the sound of the voice. However, too much of a good thing can have exactly the opposite effect and make the voice sound unnatural. So, try out the various settings at your leisure and find the ideal configuration for your sound!

The following graphic illustrates the parameters and how they work:



The adjustable parameters of the compressor:

Threshold: Threshold (signal volume) above which compression takes effect.

Here you set the application point of the compressor.

Attack: Response speed until maximum compression is reached.

This determines how soft or direct the compression is.

Release: Speed at which the compression is released. The compression ends more or less directly

after falling below the threshold. You can set the speed here.

Ratio: Degree of compression. Set the intensity of the effect here.

Attention. Do not overdo it, otherwise the voice will no longer sound natural!

Boost: Increase in the overall volume of the (compressed) signal. Compression causes

a volume decrease of the compressed signal. The Boost control can be used to raise the

overall level again. Attention: Too high values can cause an overload of the signal!

Noisegate

The noise **gate** is used to eliminate noise such as hiss and hum from the signal. To do this, it only lets through the signal components whose volume is above a certain threshold value (threshold hold). This means that the microphone signal is only heard when the volume of the signal reaches at least the threshold value set with the Threshhold parameter. Below this threshold, the noise gate closes the signal path. In this way, for example, background noise below the threshold level can be faded out, especially during vocal pauses.

Pay attention to practical attack and release times. Too much can cause "pumping" in the signal or "cutting off" the sound too quickly.

The adjustable parameters:

Threshold: Threshold value (signal volume) above which the noise gate allows the audio signal to pass.

As long as the signal volume is below the threshold value, the signal path remains closed.

is closed, no signal can be heard.

Attack: Response speed at which the noise gate opens the signal path.

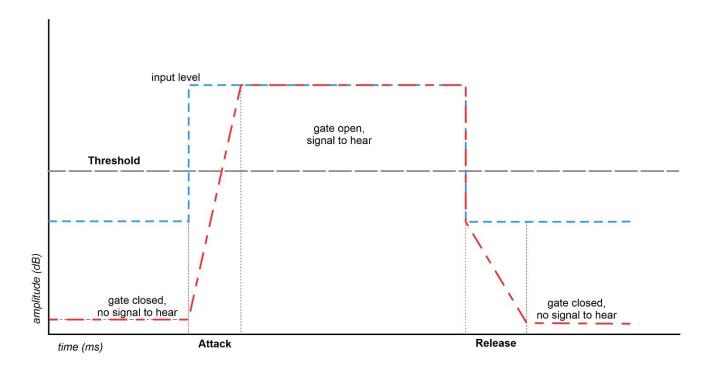
This fades in the signal more or less directly when the threshold is reached.

Release: Speed at which the noise gate closes the signal path again.

This means that the signal is more or less directly faded out when falling below the

threshold.

Here is also a graphic to illustrate the parameters and their mode of action:



Init

The **INIT function** in the display is used to reset the compressor and noise gate to the factory default settings.

- Tap the Init field.
- Confirm the security prompt to initialize the settings to the default values.



Menü für 5-Band EQ, Kompressor und Noisegate verlassen

- When you have made your settings in this input box, confirm with [Enter] to apply these settings. You can also discard the settings with [Esc].
- The box is closed, the settings are accepted at [Enter] and the display returns to the mixer interface.
- If you have adopted your settings, you DSP MIXER Setup Init! more > Name De should now save them in a **mixer preset** (see chapter D-MiX in the main SEMPRA manual).



Dedicated reverb and echo effects for microphone signal

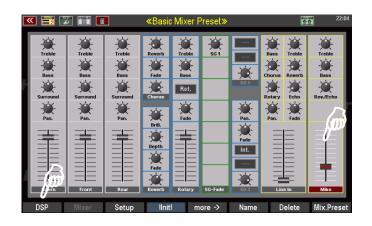
With the app **HarmonyVoice and Microphone extension** the microphone input of the D-MiX gets its own effect DSP for reverb and echo effects. The microphone signal can thus be reverberated independently of the organ reverb or be provided with echo or even combination effects. At the same time, the organ reverb can still be mixed in.

The settings for your own microphone DSP can be found - like the parameters for the HarmonyVoice processor - in the **DSP menu of** the D-MiX. They can also be saved there as vocal presets (more about vocal presets from page 39).

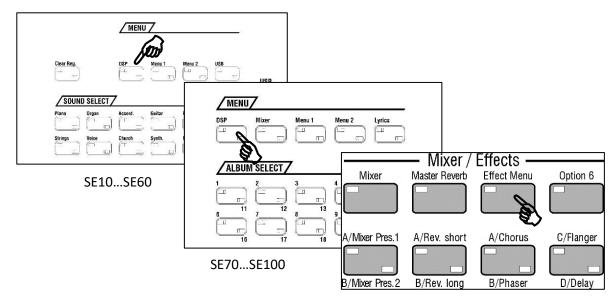
Let's call this menu once:

Calling up vocal effects in the DSP menu

- On the Mixer screen, tap in the Microphone mixer strip.
- Now tap the F button [1] **DSP** on the left below the display.

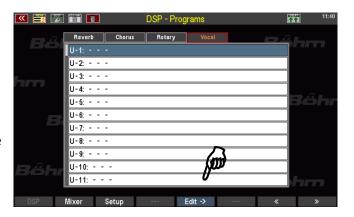


• You can also press the [DSP] or [Effect Menu] button on the control panel:



button [Effect Menu] on 480SE...600SE

- The DSP menu is called up in the display and here the area for the vocal effects.
- You will first see the list of user vocal presets here. In our example image, this list is still empty. If you have already created your own user vocal presets, these will be displayed if necessary (for more information on vocal presets, see page 39).

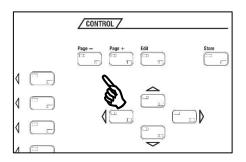


- Now tap the F button **Edit** below the display.
- The editor for the vocal effects is called up:



The editor consists of two pages, where on the one hand the **global** settings and on the other hand the settings for the up to **4 individual voices** of the Harmony Voice (**HVoices**) are made.

You can switch between the two display pages **Global** or **Voices** with the **[Page+]** / **[Page-]** buttons at the top right of the display, or by tapping directly on the tabs in the display.



Global parameters for LeadVoice, Hall/Echo, Harmony-Voice



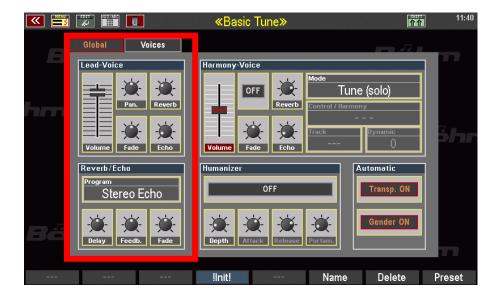
Parameters for the up to 4 HVoice voices



The parameters can be set after tapping with the usual input methods (selection with the **data wheel**, the [+]/[-] buttons in the **letter/number button field** or also - after tapping on a control - via the displayed fader and confirmation with [Enter].



First, let's look at the two fields **Lead Voice** and **Hall/Echo on the** left side of the display on the **Global** page of the editor. The remaining fields belong to the HarmonyVoice processor itself and will be explained in the next section.



The Lead-Voice

The "dry" signal from the microphone is what we call the "**LeadVoice**". This is what your voice produces. This signal can be proportionally applied to the SEMPRA's reverb unit or optionally to a dedicated effects unit (called "Echo" here) with various reverb and echo programs. The LeadVoice is adjustable in volume and panorama and, if the Quadrofonie app is available, also in front/rear fading. In detail:

Settings and effect assignments for the lead voice

Here, only the **Lead Voice** section and the **Reverb/Echo** section below it are currently intended to serve us for the settings of our own reverb and echo effects for the microphone signal.

For the **Lead Voice** you can set:

Reverb slider:

Fader Volume: The volume of the lead voice *

Pan.(orama) slider: The left/right stereo position of the lead voice. **Fade slider**: Positions the lead voice between the front and

Positions the lead voice between the front and rear Rear channels (if quadrophonic extension is present).

Mixes the global organ reverb to the lead voice. *

Echo slider : Mixes the lead voice with its own reverb/echo effect

idei : Wilkes the ledd voice with its own revers, een

DSP for the microphone input. *

For the assignment of the lead voice to the organ reverb on the one hand or to its own reverb/echo DSP for the microphone channel on the other hand, the two controls Hall or Echo in the Lead Voice section are used.

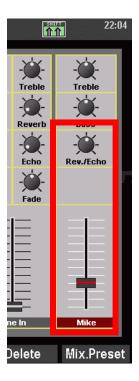


So both effects - organ reverb and dedicated microphone DSP - can also be used together or alone for the microphone signal, depending on the setting of these controls.

* Attention: The control ranges for the volume and the effect intensities for reverb or echo of the lead voice are determined by the settings of the volume fader or the reverb control in the microphone mixer strip of the mixing console! The controls there therefore determine the maximum achievable volume and effect intensities for the lead voice!

If the **Hall/Echo** control in the mixer strip is set to "0" (left stop), for example, no reverb or echo effect will be heard on the lead voice even if the Hall or Echo controls in the Lead Voice field are turned all the way up!

The Reverb/Echo control of the microphone mixer drawbar can be assigned to a freely assignable slider or drawbar in the BMC menu Buttons & Sliders & (4) - Edit slider Preset (7). For more information, see the section Controlling Vocal and HarmonyVoice functions during live play starting on page 43.



Set reverb/echo DSP

In the lower left area of the display for the global Micro and HarmonyVoice settings you will find the settings for the actual reverb/echo DSP of the microphone input:

You can make the following settings here:

Programm: Reverb/echo program selection:

1. --- (no effect)

2. Room 1

3. Room 2

4. Room 3

5. Small Hall 1

6. Small Hall 2

7. Large Hall 1

8. Large Hall 2

9. Short Plate

10. Vocal Plate

11. Mono Echo

12. Stereo Echo

13. MonoEcho + Rev.

14. St.Echo + Rev.

Delay control: Setting the speed at which the echoes sound (only for echo programs).

Feedback control: Set the number of echoes (only for echo programs)

Front/Rear position of the effect (if quadrophonic is present)



Storage of settings for lead voice and separate reverb/echo DSP

While the (global) settings for the **mixer**'s microphone input are stored in the **mixer presets**, the settings for the lead voice and also for the separate reverb/echo DSP (together with the settings for the Harmony Voice processor) are part of the stand-alone **vocal presets**. More details in a separate section starting on page 39.

In the section **Controlling Vocal and HarmonyVoice Functions in Live Play** from page 43 you will also learn how to control HVoice volumes, reverb/echo intensity, and also lead voice volume from the control panel.

HarmonyVoice

Now we come to the actual **HarmonyVoice** processor - in the following called **HV** for short. Corresponding effect devices are commonly known as "harmonizers": They add additional voices to the vocals, for example, depending on the chords played on the keyboard or a control track in a midi file, and thus create a choral movement from the singer's solo voice.

However, the HV of your SEMPRA offers much more beyond that. The possibilities in overview:

The HV processor offers 6 basic operating modes. Depending on the mode, it generates up to 4 additional vocal voices for which various parameters can be set. There are modes that "tune" the actual vocal voice (i.e. correct the tuning), make it fuller with additional voices, or that generate a complete background choir of up to four voices - you sing with yourself in the choir!

You have already become acquainted with the lead voice as the actual microphone signal. It is the basis for the various vocal effects of the HV. Depending on the operating mode of the HV (see below), however, the LeadVoice itself can also be switched off (Tune and Detune modes).

In the HV modes that generate chorus vocals, the pitches underlying the additionally generated voices are derived from the playing on a (selectable) manual, the accompanying chords or from a playback (Midifile) track. The options for the control are adjustable depending on the mode in each case.

In addition, there are functions such as automatic or manually adjustable formant adjustments (gender effects), humanizer (makes the HV voices sound more "human"), transpose automatic for automatic pitch corrections, and so on. On the following pages we will take a close look at all the functions and the 6 HV operating modes.

Finally, different settings are also possible for the up to four voices generated by the HV to adjust the generated choral singing.

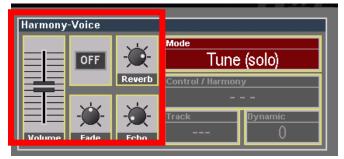
All settings for the HV processor, lead voice, etc. can be adjusted in the vocal effects editor in the DSP menu of the D-MiX and saved as custom vocal presets. We have already learned about this editor in the previous section in the settings for the lead voice and the microphone reverb/echo effects. Now let's turn to the settings for the HV processor in this editor:

Editor for the HarmonyVoice functions

The global parameters for the HV processor are set on the Global **page of** the HV editor display, just like the settings for the lead voice and the reverb/echo DSP before.



For all HVoices together the volume and also the reverb (organ reverb) and/or echo part (separate reverb/echo DSP for microphone) can be adjusted. With the fade control, the HVoices can be positioned between the front and rear outputs if quadraphony is present.



In the section Controlling vocal and HarmonyVoice

functions during live play starting on page 43 you will learn how to control the HVoices volumes, the reverb/echo intensity and also the lead voice volume from the control panel.

Switch HVoice on and off

The **ON/OFF** button switches the HV processor on or off here in the menu.

In the section **Operating the HarmonyVoice during live play** from page 43 you will learn how to switch the HV on and off in game mode without having to switch to the Editor menu here first.

Set HV modes

In the **Mode** field, you can select the desired operating mode of the HV. There are **6 different modes** to choose from, which are explained from page 36 are explained.

Depending on the selected mode, other function parameters (e.g. the **LeadVoice** parameters and the **Control/Harmony**, **Track** and **Dynamics** parameters



in the Harmony Voice section) are actively displayed and can be changed. Some of these parameters are switched inactive if they are not relevant for the selected HV mode.

More detailed explanations of these parameters and the respective setting options can also be found in the descriptions of the 6 HV modes starting on page 36.

On the Voices page of the editor, the parameters for the individual HVoices involved can be set.



The voices can be switched on and off individually via the respective **On/Off switches** (the maximum number of voices that can be activated depends on the selected HV mode). For each active voice 1...4 the **volume**, stereo panorama, **transposition** and (fine) **tuning are** also adjustable.

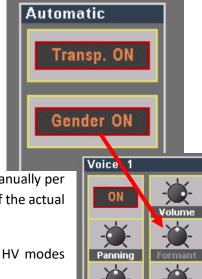
Formant and gender automatic

The **Formant** sliders for the individual HVoice voices are only active if the so-called **gender automatic** is **switched off on the Global page of** the editor.

If the **gender automatic** is **activated**, the voice pitches of the generated HVoices change depending on the extent of the transposition and the pitch of the LeadVoice by a so-called formant shift. This makes the voice sound more male or female accordingly.

When the automatic is switched off, this formant shift can be adjusted manually per HVoice using the formant controls. This adjustment is then independent of the actual pitch of the LeadVoice!

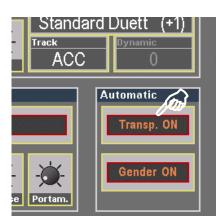
Further explanations follow below in the descriptions of the individual HV modes starting on page 36.



Automatic transpose

The transpose automatic transposes the generated HVoices into the vicinity of the sung notes of the LeadVoice, which can be important depending on the application. It also switches the **intonation correction** in the HV modes "Tune" and "Detune" **off** (Transpose automatic **off**) or **on** (Transpose automatic on).

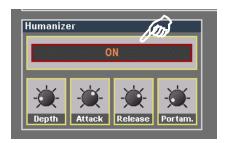
Further explanations can be found in the descriptions of the individual modes from page 36.



Humanizer

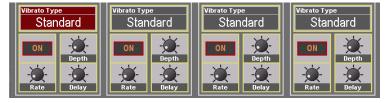
To give the generated voices a less "technical" sound, the Humanizer should be used. It "smoothes out" the jumps caused by correction or control and makes the generated choir sound more natural. In "Tune" and "Detune" mode, not all parameters of the humanizer are possible (because they are not useful).

The depth of the effect, the attack and release speed, and the portamento (binding of the tones) can be set.



Vibrati for the HVoice voices

If the sung voice already has a vibrato, this is only passed on to the HVoices if the **intonation correction** is **off** (automatic transposition **off**) **or** the **humanizer** is active and set with the appropriate *strength*.



Otherwise, the HVs are generated without vibrato!

In this case you can add an own vibrato for each HVoice on the editor page **Voices**. There are 10 different **vibrato types to** choose from:

Standard Female Pop Crooner Natural Tremolo

Trembling Tense
Tremolo Opera
Male Pop Vibrato

The vibrato can basically be turned on and off and adjusted in **depth** and **speed. The** delay of the **insert is** also adjustable.

By the way, a weak and very slow vibrato in two HVoices with similar pitch creates a kind of chorus effect of these voices. But please use it only discreetly!

The 6 basic operating modes of the HarmonyVoice

As already mentioned, the HarmonyVoice Processor offers a total of 6 different operating modes. Depending on the selected mode, the corresponding parameters are available in the **Harmony Voice** field of the **Global page** or for the involved HVoices on the **Voice page**.

The following section now describes the 6 modes with their respective special features.

1. Tune (solo)

- This mode can be used to correct the sung notes, slight detunings of the singing voice will be corrected.
- The LeadVoice itself is <u>muted</u> (parameter inactive), only the first HVoice (voice 1 on the Voices page) "sings".
- The generated Voice (Voice 1) can be changed in octave position (Transp.), volume and panorama. (A deviating tuning would also be possible but makes the correction of the LeadVoice useless in a sense).



- If the *Transpose automatic is* off on the **Global** page, **no correction of** the sung notes is made. Thus, for example, a low voice can sound 1:1 an octave higher - or vice versa!!

2. Detune:

- The mode creates a **unison singing choir** in addition to your LeadVoice.
- Up to 4 additional HVoice voices are possible in this mode. To do this, switch the desired voices to ON.
- Each voice can be adjusted in octave and tuning as well as volume and pan!
- A correction of the sung notes is possible with the *Transpose automatic*.

The AGM votes are thus "smoothed out".



Special features of the Tune / Detune modes

Here "Automatic - Transp. ON" switches on the *intonation correction*. The sung note is rounded to the next "correct" note. The rounding up starts earlier than the rounding down, because experience shows that the note is usually used too low rather than too high.

The **Humanizer** forgives more impurities as the *depth* increases and makes the voice sound more natural. Not all parameters in the Humanizer make sense here and are therefore partially deactivated. "*Automatic - Gender OFF*" should be selected here if you want to individually adapt or alienate the generated HV(s) to your own voice. By default, however, the *Gender automatic is* activated.

3. Chord

- This mode generates up to 4 additional voices depending on the key played and the selected "harmony". Here, matching polyphonic phrases are added to the notes of the LeadVoice. The key is determined by the automatic accompaniment!
- Each voice can be adjusted in octave and tuning, as well as volume and pan!



Special features

Similar to the well-known solo chord of the organ, here, depending on the key and chord of the automatic accompaniment, suitable voices are added to the sung LeadVoice. Various *harmony models* ranging from one to four additional voices are available (selectable in the **Control/Harmony** parameter field).

The control takes place by default directly from the accompaniment of the SEMPRA (parameter **track** = *ACC*). However, any track of a possibly used playback can also be set here, on which preferably lying chords play, which then take over the chord control of the harmonies! The recognized chords are displayed in the basic screen.

"Automatic - Transp. ON" transposes the first of the added chord voices one octave higher, so that it then lies above the sung note. This function does **not** work with the harmonies "Blue Gras Duet (+1)", "Blue Gras Trio (+2)", "4-Way Full (+3)" and "4-Way open (+4)". Here the first HV is **always** above the sung note!

Intonation correction is always active in this mode!

Here, too, the **humanizer** allows more impurities with increasing *strength* and passes them on to the HVs. The **attack** and **decay** of the HVoices are more or less delayed or decay more slowly. **Caution.** If the **decay** is too long, the (too fast) following note is not delayed!

4. Harmony

- Here externally generated notes control the additionally generated voices. The notes can come from a playback (midifile) or be played live on one of the manuals. The source of the notes is adjustable.
- Each voice can be adjusted in octave and tuning, as well as volume and pan!



Special Features

Notes are added to the sung LeadVoice, which are played in via the manuals or a playback. To do this, the manual, 1-finger automatic or playback must be selected in the **control**.

If **Playback** is selected, the **Track** parameter specifies the track of the playback whose notes the HVoices are to control.

The velocity (**Dynamics** parameter) of the controlling notes also controls the volume of the HVoices! How strongly the volume depends on the velocity can be set here:

0 = no dynamics, full volume

.

4 = full dynamics.

The HVoices sound in this mode completely independently of the LeadVoice! The **transpose automatic** transposes the HVoices in the proximity of the sung note.

Attention! The following applies in principle: a HarmonyVoice can be a maximum of 2 octaves away from the LeadVoice, otherwise a corresponding correction (octave shift) takes place automatically! Here, too, it is recommended to activate the **gender automatic** and the **humanizer**.

About the Harmony mode, a playing tip: As you know, each HVoice can be activated/deactivated individually. This is interesting when the HVoices are controlled by the upper manual in this mode, for example. The highest note of the chord fingered there (usually this is the melody voice) would control HVoice voice 1. However, this is muted so that this voice is only sounded by the LeadVoice itself. In addition, a part/sound of the upper manual could be switched to *monophonic*, which then also plays only the highest note (*retrigger* for monophonic mode in the part options set to "off"!) as support for the sung melody voice.

5. Vocoder solo:

- Here again only the first HVoice (voice 1) plays, the LeadVoice is <u>muted</u>.
- The HVoice is controlled by a selectable manual.
 No matter what is sung, the note (pitch) of the controlling manual will sound!
- The generated voice can be changed in octave position, tuning, volume and panorama!

Reverb / Echo Program Stereo Echo Program Ster

6. Vocoder chord:

- Again, the LeadVoice is <u>muted</u>, but all up to 4
 HVoices "sing" notes played from a selectable manual or from a playback (Midifile).
- Each voice can be adjusted in octave and tuning, as well as volume and pan!

Features of the two vocoder modes

The same notes apply as for the "Harmony" mode, except that here the LeadVoice is muted in each case. The two vocoder modes are intended for



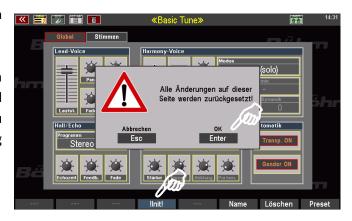
special effects, in which the humanizer and the automatics are often deactivated, e.g. to create the typical "Cher" effect or other "electronic" or robot-like effects.

Initialize vocal editor

You can initialize the editor for the vocal settings, i.e. reset all parameters to factory default settings. This can be useful, for example, if you want to make a fundamentally new setting coming from an existing vocal preset, or if you "got lost" in the many possibilities during your first attempts.

The Init function only resets the parameters of the two editor pages Global and Voices to the default settings. Of course, vocal presets that have already been saved will not be deleted!

- To initialize the editor, press the F button
 [Init] below the display.
- A security query follows: Confirm this with [Enter] if you really want to initialize. All parameters are then reset (with [Esc] you can cancel the process without initializing the parameters).



Vocal presets

The settings you make on the two editor pages of the vocal DSP (lead voice settings, reverb/echo settings, configuration of the Harmony Voice and the up to 4 HV voices) can be saved in your own **vocal presets**. There are **64 User** and **64 Firm** positions available for Vocal presets.

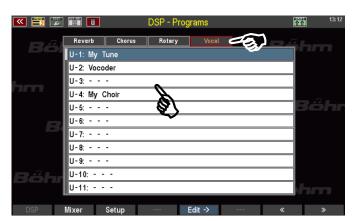
The vocal presets - like the reverb and chorus or D-MiX rotor presets - belong to the DSP presets. They are therefore also selectable in the **DSP menu** of the D-MiX (call DSP menu see page 27).

Here is an example with some user presets already stored (pos. **U-1**...**U-64**):

You can scroll through the list of vocal presets with the [data wheel] or the [cursor keys] up/down. Below the 64 User positions follows the list of 64 Firm positions.

On the Firm-Positions you will already find **43 factory vocal presets** after installing the factory data to the Harmony Voice. For all 6 Harmony Voice modes, various sample settings are available here, which you can use to get to know the processor and its possibilities.

In the appendix to this manual you will find a list with notes on the factory vocal presets.





Coupling to the SONG presets

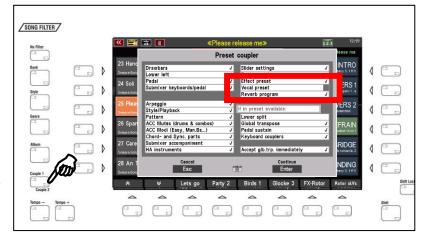
Like the other DSP preset types (reverb, chorus, D-MiX Rotor), the vocal presets can be linked to the SONG presets (registrations) of the SEMPRA and switched with them.

When saving a SONG preset, it also "remembers" the position of the currently selected vocal preset.

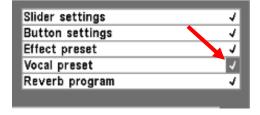


In the settings for the preset coupler (button [Couple 1 / 2] to the left of the display) you can define for each of the 4 coupler positions whether the vocal presets should be switched with the SONG presets or not.

In the factory setting of the four couplers, the coupling of the vocal presets is initially deactivated on all four coupler configurations.



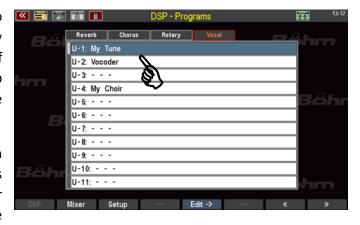
If you want to couple the vocal presets to the SONG presets, set a check mark in the Preset Coupler menu for the entry "Vocal Presets" and confirm with **[Enter]**. You can make the setting for each of the four positions of the preset coupler button individually (for more details on the preset coupler, see the main SEMPRA user manual).



U-1 als Standard

All SEMPRA factory SONG presets use - as long as no other vocal preset has been assigned to them by reassignment and new saving - the user preset 1. If this is not assigned (as e.g. after reinstalling the app with the then still empty user preset list), the corresponding firm vocal preset F-1 is used.

You can thus save your own default configuration for the vocal settings as User-Vocalpreset 1 and thus automatically assign it to all factory SONG presets or also to your own SONG presets created before installing the app.



All you need to do is assign your own vocal setting to the U-1 Vocal Preset. In the following section, we will explain how to save your own vocal preset.

By the way, the same applies to the other user vocal preset positions: If an unassigned user preset number is selected from a SONG preset, the corresponding firm vocal preset position is used.

Save your own vocal presets

If you have made settings in the Vocal Effects Editor that you want to use for your playing, you should save them as a **User Vocal preset**.

By the way, if you make changes in the editor and then try to exit without saving, you will be reminded to save the settings:

You probably already know this message from other SEMPRA menus where settings can be saved.

With **[Esc]** you can leave the menu here without saving the changed settings.

Pressing **[Enter]** takes you back to the editor and you can edit the settings further or save them as a user vocal preset. Let's do that once now:

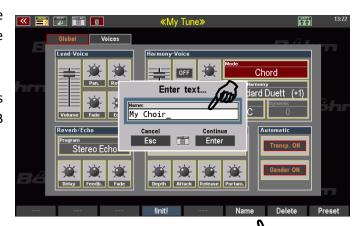


We assume that you have made a configuration of the Harmony voice in the editor, which you now want to save as a vocal preset.

Namen für das Preset vergeben

Before the actual saving, you should first assign a name for the found setting.

- Press the F button [Name] below the display. The input box for the preset name is opened.
- Enter the desired name via the letter keys or, if necessary, via a connected USB keyboard.
- Confirm the entry with [Enter].



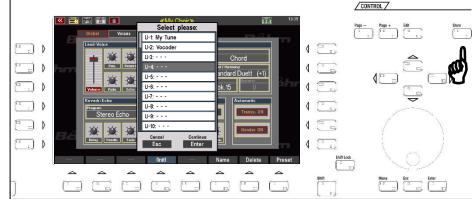
The name entered is now shown at the top of the display.



Save preset

All settings are made and a name for the new vocal preset have been assigned? Then we can finally save the preset:

- Press the [Store]
 button on the control
 panel to start the
 store process.
- A list of the 64 user memory locations is shown in the display.

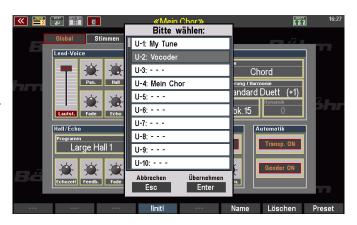


- Select the desired position here. You can scroll through the list with the [data wheel] or the [cursor] up/down keys and select the desired position.
- When the desired position is selected, confirm with **[Enter]**. The vocal preset is saved under the previously selected name at the desired position.

Select vocal presets directly in the editor

You can also select the existing user and firm vocal presets directly from the editor:

- Tap the F button [Preset] below the display.
 The list of vocal presets is displayed.
- Scroll with the [data wheel] or with the [cursor keys] up/down to the desired User or Firm preset. First the 64 User and then the 64 Firm positions follow in the list.



Confirm the selected position with [Enter].
 The selected vocal preset is called up and the parameters on the editor pages are set accordingly.



These settings can now be edited directly. This allows you to quickly edit and modify existing vocal presets. To save changes permanently, save the changes by resaving the previously selected and modified vocal preset, or save the settings to a new vocal preset.

Delete user vocal presets

You can delete single or a series of consecutive user vocal presets.

- Press the F button [Delete] below the display.
- A selection box for the preset(s) to be deleted is displayed.
- Select the preset(s) to be deleted here (entries from - to) and confirm with [Enter].
- If you only want to delete the preset currently active in the editor, no entry in the selection box is necessary. In this case you can confirm directly with [Enter].
- The selected user vocal preset(s) are deleted (cancel without deleting with [Esc] in the selection box).

Save vocal presets to USB

The vocal presets can be saved as a **setup file** on a USB stick or loaded back into SEMPRA from there. Of course, they are also included in the overall data backups.

For more information on saving setup or backup files, refer to the *USB Functions* chapter of the main SEMPRA manual.





Select please:

Call Slider Preset

Edit Slider Preset

Edit Hexdump

VER

REFR.

U-60: - - -

U-61: - - -

U-62: - - -

U-63: - - -U-64: - - -

F-1: Basic Preset

-3: Hawaii Swell I. F--4: Freeze Swell I.

F-5: Harmony Voice

Enter

F-2: Part Mute

Esc

Control vocal and Harmony Voice functions during live play

Switch HV on and off

During play operation you can switch the HV processor on and off by using a corresponding button preset e.g. via one of the **[F]** buttons below the display (basic screen) or e.g. via a foot switch.

F-5

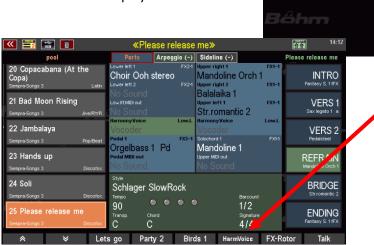
Call Button Preset

Edit Button Preset

Edit Button Macro

With the installation of the factory data to the app, the factory button preset **F-5 Harmony Voice** was added to the list of Firm factory presets for this purpose.

If you activate this button preset, you can switch the HV processor on and off with the **[F]** button 6 **Harmony Voice** below the display.



The operating state HV **on** (F button with red background) or off (F button with white background) is of course stored in the SONG presets and can thus be switched with the preset selection.

You can also assign the function in the Edit menu for the button presets to any other freely assignable (foot) buttons and thus use the function in your own button presets. To do this, use the new **HarmVoice** button macro.

For more information on creating button presets, refer to the Button and Controller Assignments chapter of the main SEMPRA manual.



55: Upper r2 56: Upper r3

7: Upper r4

Macro Edit

Vocoder

Mandoline 1

Pd

Controller functions for microphone / Harmony Voice

You can assign various control functions for microphone/harmony voice to the SEMPRA's sliders or drawbars via corresponding control presets. These functions can then be controlled in real time while playing.

The following relevant control functions are available in the BMC menu **Buttons and Sliders (4)** - **Edit Slider Preset (7)** in the type list **Mixer Function**:

Microphone: Overall volume control for the microphone/HarmonyVoice signal. This control corresponds to the [Micro] slider on the control panel of the SE10...SE100 models or the fader in the Microphone mixer strip of the D-MiX mixing console.



Micro FX: Sum control for the microphone effects reverb (global organ reverb) and reverb/echo (dedicated reverb DSP for the micro input). The control corresponds to the reverb/echo control in the mic mixer strip of the D-Mix mixer.

HarmVoice: Volume control for the voices generated by the HarmonyVoice processor. The slider corresponds to the HarmonyVoice volume slider on the Global page of the HV Editor.

LeadVoice: Volume control for the lead voice, i.e. the actual microphone signal. The slider corresponds to the volume control for the lead voice on the Global page of the HV Editor.

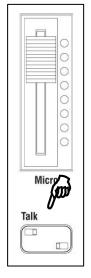
For more information on creating controller presets, refer to the corresponding chapter in the main SEMPRA user manual.

Talk function

For example, for announcements, moderations, etc., it is useful to fade out reverb, echo or even the Harmony Voice effects on the microphone signal. For this purpose, SEMPRA offers the **Talk function**. As long as Talk is activated, you will only hear the "dry" microphone signal without effects. If Talk is switched off again, the effects will sound as before. Talk does not influence the configuration of the effects, but simply switches them off or on again.

The SEMPRA instruments SE10...SE100 have their own **[Talk]** button directly on the control panel. It is located in the upper left corner, below the microphone control.

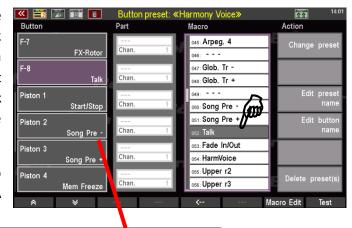
- To reproduce the function now, select a setting with activated reverb on the microphone signal.
- Tap the Talk button to activate the function. The LED in the button flashes.
- Now speak into the microphone. You will only hear the dry microphone signal without reverb.



• Switch the **[Talk]** button off again (LED in the button off). Speak or sing into the microphone. The reverb can now be heard again.

You can also control the Talk function - e.g. with the models 480SE...600SE, which do not have a Talk button on the control panel - by means of a pushbutton function, e.g. via an F-button or a foot switch. A corresponding push button Macro **Talk** has been installed with the factory data to the Harmony Voice App.

For more details on creating button presets, refer to the corresponding chapter in the main SEMPRA manual.





Show Vocal Presets as Part

For better orientation, which vocal preset is currently active and whether the Harmony Voice Processor is switched on or off, you can have this information displayed in the SEMPRA basic screen via a special **Harmony Voice Part**. This Harmony Voice part can be assigned to any part position of the basic screen via the BMC menu **Parts & MIDI (7)** - **Parts for main menu (2)**.

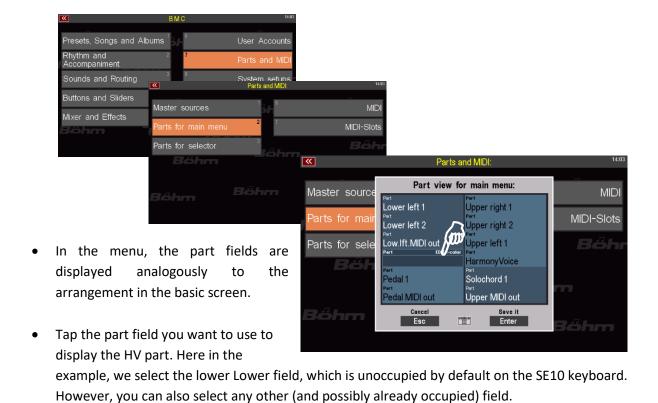
Depending on the SEMPRA model, a free position may be suitable for this (e.g. the empty part field at the top right of two-manual SEMPRA models, or the empty lower part field in the Lower area of the SE10 keyboard - see example image on the right).

If the part display is already "full", it may be necessary to "sacrifice" a less needed part of one of the manuals or the pedal for the display and exchange it for the Harmony Voice part.

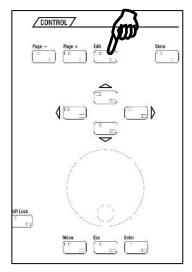


You can assign the Harmony Voice Part to one of the Part fields in the BMC menu Parts for main menu:

• Call up the menu (shown here as an example for an SE10 keyboard):



- You can now use the **[data wheel] to** select a part for display in the selected field. Turn the wheel clockwise until the **Harmony Voice** part appears.
- With the [Edit] button at the top right of the display (the LED in the button flashes) you can switch between different colors (blue, gray, green...) for the selected part field by pressing the button several times. This allows the part to be visually highlighted or distinguished from the other keyboard parts.
- Confirm your entries with [Enter] to apply the selected configuration.



Arpeggio (-) Sideline (-)

Choir Ooh stereo

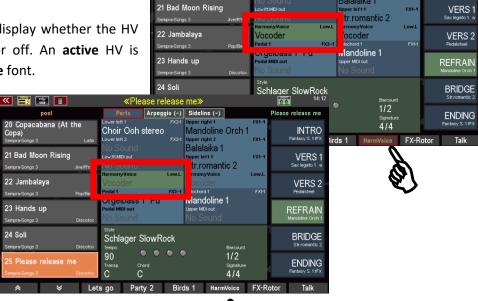
Mandoline Orch 1

Balalaika 1

INTRO

If you now return to the basic screen, the Harmony Voice Part will be displayed as previously configured:

You can also tell from the display whether the HV processor is switched on or off. An **active** HV is indicated by a **black** or **white** font.



When the HV is inactive, the font is grayed out.



If you use the F-button function for switching the HV on and off, you can follow this immediately if you press the F-button [HarmVoice] several times.

Another special feature of this part: If you tap on the **Harmony Voice part in** the basic screen, you go directly to the Vocal Preset selection in the DSP menu.



Appendix: Overview Firm Vocal-Pesets

Overview Firm Vocal Presets				
		controlled		
F	HV mode	by	name Vocal-Preset	description
1	Tune		Tune basic	Solo voice with intonation assistance
2	Tune	Gesang	Tune octave up	Solo voice 1 octave higher, tenor sounds similar to an alto voice, with intonation assistance
3	Tune		Tune octave down	Tenor-led 4-part mixed background choir, with intonation assistance
5	Detune		Detune mixed choir	Tenor-led 4-part mixed background choir, with intonation assistance.
6	Detune		Detune choir up	Tenor-led 4-part background choir (alto), with intonation assistance
7	Detune		Detune choir down	Alto-led 4-part background choir (tenor), with intonation assistance
8	Detune		Detune+1HV oct.up	Duet with 1 HV 1 octave higher (e.g. tenor+alto), without intonation assistance
9	Detune		Detune+1HV oct.dwn	Duet with 1 HV 1 octave lower (e.g. alto+tenor), without intonation assistance
10	Chord	Steuerung durch die Begleitung Lower Left (Standard)	Chord Duett above	2nd voice above the LeadVoice matching the key of the accompaniment.
11	Chord		Chord Duett below	2nd voice below the LeadVoice matching the key of the accompaniment.
12	Chord		Chord Trio above	2nd and 3rd voices above the LeadVoice matching the key of the accompaniment.
13	Chord		Chord Trio below	2nd and 3rd voices below the LeadVoice matching the key of the accompaniment.
14	Chord		Chord FullCrd above	Background with high voices, matching the accompaniment.
15	Chord		Chord FullCrd below	Background with deep voices, matching the accompaniment.
16	Chord		Chord BluGr Trio	BlueGrass Trio with upper voice
17	Chord		Chord 4wayOp.above	4-part choir with 3 upper and 1 lower voice high
18	Chord		Chord 4wayOp.below	4-part choir with 2 upper and 2 lower voices
	Harmony	Upper	Harm. LV+HV2	Harmony 1-voice playing as 2nd voice in upper manual right. Upper can monophonically lead the 1st voice!
	Harmony		Harm. LV+HV2 blw.	Harmony 1-part as lower part (e.g. as bass) played on Upper manual right.
	Harmony		Harm. LV+HV2-4	Harmony with up to 3 voicesplayed on Upper manual right. Upper can monophonically lead the 1st voice!
15-17-0	Harmony		Harm4stBassumk.	Harmony up to 4 voices in Upper manual. 1st voice with soprano/bass conversion (bass inversion).
	Harmony	Lower Left	Harm. LV+HV2 ACC	Harmony 1-voice played as 2nd voice in Lower manual left (second highest key).
	Harmony		Harm. LV+HV3 ACC	Harmony 1-voice played as 2nd voice in Lower manual left (thirdhighest key).
	Harmony		Harm. LV+HV2-4 ACC	Harmony played up to 3 voices in lower manual left.
30	Vocoder solo		VocSolo Sopran	Soprano singing, controlled via Upper manual
	Vocoder solo	Upper	VocSolo Alt	Alto singing, controlled via Upper manual
1 10000000	Vocoder solo		VocSolo Tenor	Tenor singing, controlled via Upper manual
	Vocader solo	Lower Left	VocSolo Bass VocChord Mix-1	Bass singing, controlled via Upper manual
34	Vocoder chord Vocoder chord		VocChord Mix-1 VocChord Mix-2	Tone color (dark), controlled by the Lower left chord
35	vocoder chord		VOCCHORA WIX-2	Tone color (bright), controlled by the Lower left chord
40	Vocoder solo	- Playback	VocSolo Pbk. 4	Solo vocals controlled controlled only via track 4 of the playback.
41	Vocoder chord		Harmony Pbk.15	Up to 4 voiced background choir, controlled via track 15 of the playback.
42	Vocoder chord		Crd Duett abv Pbk.3	Upper voice controlled by the chord on track 3 of the playback.
43	Vocoder chord		Crd Trio abv Pbk.3	2nd and 3rd voice controlled by the chord on track 3 of the playback.



Keyswerk Musikelektronik GmbH Warbersche Str. 32 31675 Bückeburg

Tel. (+49) 05722/90 50 88 Fax: (+49) 05722/287 555

E-Mail: <u>info@boehm-orgeln.de</u> Web: <u>www.boehm-orgeln.de</u>