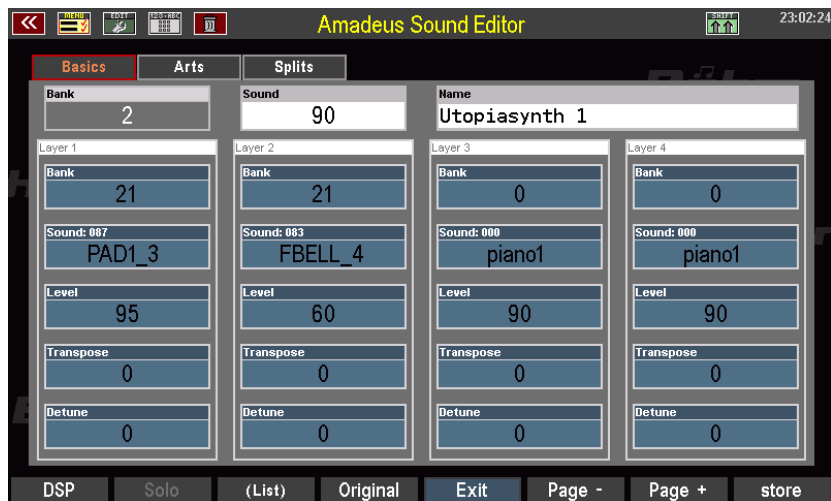


# SEMPRA 2.0

## User manual

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# AMADEUS Sound Editor



[www.boehm-organs.com](http://www.boehm-organs.com)

Amadeus Sound Editor user manual  
Version 2.0  
Art.-No. 41151AE, 11.10.2023

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

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## 1. Introduction

Dear, music lover!

Thank you for purchasing the Amadeus Sound Editor for your SEMPRA with Amadeus2 sound generation. We are sure that this "tool" with its almost unlimited possibilities of sound design will enrich your music with many new, undreamed sounds.

In order to get to know all the possibilities in detail and to familiarize yourself with the exact mode of operation of the various parameters, please read this manual completely and try out the various functions right at the instrument. Thus, you will quickly be able to realize your personal desired sounds with the help of the various functions or to find completely new, surprising sound creations.

### What is the Amadeus Sound Editor?

The **Amadeus Sound Editor** expands your SEMPRA to a versatile, sonorous synthesizer. You can use the editor to change the existing AMADEUS sounds in a variety of ways and adapt them to your ideas or even create completely new sounds. Here is a summary of the most important features of the Amadeus Sound Editor:

- The **Amadeus Sound Editor** allows you to modify existing Amadeus sounds or to create completely new ones. In addition, the **Amadeus Sound Editor** allows you to change the versatile effects of the AMADEUS DSPs and add them to the sounds (e.g. distortion, equalizer, chorus/tremolo, echo delays, etc.).
- With the **Amadeus Sound Editor** you have received - on USB stick or via email – an activation code which you have to enter in the corresponding menu of the SEMPRA. This activates the **Amadeus Sound Editor**, which can then be called up and used.
- User sounds can be stored at the original places or also on each other of the altogether 128 x 128 individual sound places. The factory sounds can also be overwritten (but they are not lost). Please note that such sound changes on the original positions will affect all Global Presets using that – now changed - sounds! By deleting self-created sounds in the editor, overwritten factory sounds can be "retrieved" at any time.
- When saving your own sounds, please also note that some sound banks / places of the AMADEUS system(s) are used by additionally available software extensions (e.g. Accordion Fascination, Movie Sound, Viva Musica VSP...). When storing sounds, the **Amadeus Sound Editor** shows you whether sound places are already occupied. We recommend that you do not overwrite such places so that the original sounds will sound correctly in the corresponding registrations (Global Presets).
- **Please note:** It's not possible to edit the drum sets in the sound bank 128 with the **Amadeus Sound Editor**!

- AMADEUS sounds can be created which consist of up to 4 separate element sounds (so-called "layers"). For each layer or element sound, split and dynamic range, panorama mode, tuning and various ART playing parameters can be set. For example, individual layers can only be triggered in Legato mode, only from a certain number of keys or up to a certain number of keys played simultaneously, by a "random generator" or otherwise. In this way, you can create interesting articulation functions that allow you to control the individual sound elements according to your playing style.
- Each layer can also be individually adapted or completely changed using more than 60 sound parameters. The volume envelope ("DCA" = "Digital Controlled Amplifier"), filter characteristics and envelope ("DCF" = "Digital Controlled Filter"), pitch envelope ("DCO" = "Digital Controlled Oscillator"), dynamic behavior, frequency, amplitude and filter vibrato (2 LFO's = "Low Frequency Oscillator") etc. can be edited here. These individual parameters are changed in the **Amadeus Sound Editor** relative to the values already stored in the sound in ascending or descending order. This means that the effect of the same parameter can be different for different sounds with regard to the achievable intensity.
- The effect of the velocity, the aftertouch and the modulation wheel on volume, filter characteristics or LFO's can be adjusted in intensity per layer. These controllers can also control the filter characteristics, for example (sound change manually while playing via modulation wheel or aftertouch => comparably to the wah-wah effects on previous analog organs).
- In addition to the actual sound parameters, the **Amadeus Sound Editor** also allows the full editing of the AMADEUS DSP effects (DSP functions of the sound system). Up to 6 (!) different effects can affect the sound at the same time and can be edited individually: compressor/limiter, wah-wah filter, distortion, 4-band equalizer, chorus/flanger/phaser-/tremolo and a delay (= echo, if desired also tempo synchronous!). Each AMADEUS sound system has two such effect DSPs in the standard version, so up to two effect sounds can be played simultaneously with each system's own effect settings.
- If the optional DSP extension (Art. No. 41150) is installed, the number of effect DSPs per AMADEUS sound module doubles to 4. In this case, up to four effect sounds (labelled "...FX" in the sound name) can be used simultaneously with individual effects on each sound module. You can find more information on this in the operating instructions for the DSP extension.
- Sound editing can be done on a single sound module, or alternatively on all AMADEUS sound modules in the instrument at the same time. The sound changes are immediately transferred to all modules, so that the changed/newly created sounds are immediately available on all modules. If editing is selected on only one of the existing modules, changed/newly created sounds will initially only be available on this module. If necessary, such sound data must first be stored on a USB stick and loaded from there into the other sound modules.

- You can save single sound banks as well as parts of them up to single sounds, but also all sound banks completely in one step on a USB stick.
- Editing with the **Amadeus Sound Editor** is always done via the part **UPPER 1 R** (upper manual 1 right). The sound to be changed must be registered for this part and then the editor must be called up.



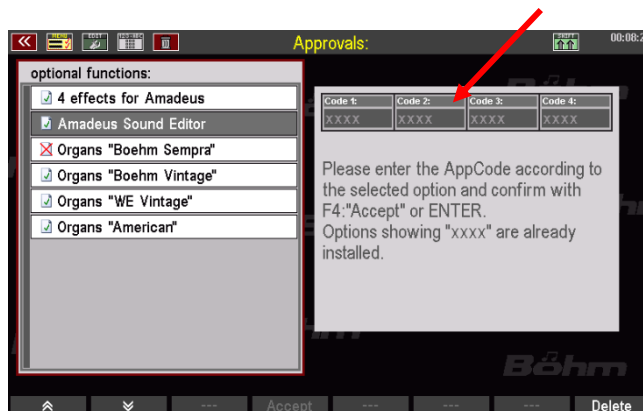
## 2. installation / starting the editor

In order to open and use the Amadeus Sound Editor in the BMC, the app must first be activated via an 16-digit activation code in the same way as other SEMPRA apps.

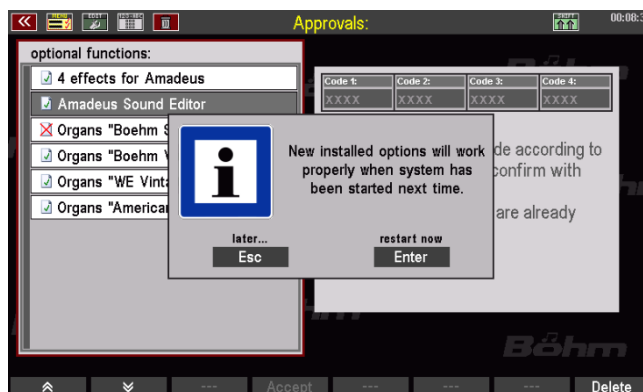
### Activation of the Amadeus Sound Editors

If you have received a USB stick for the installation, the activation code for the **Amadeus Sound Editor** is also stored there. This makes the following entry easier, as the corresponding code is automatically entered if the installation stick is inserted as drive C or "USB1".

- Enter the menu „**System setups**“ (8) – „**Approvals**“ (4):
- Select the item "**2 Amadeus Sound Editor**", so that the code can be read in from the inserted USB stick.
- If you didn't got a stick with the Amadeus Sound Editor, type the transmitted code into the number fields manually by using the numeric/letter buttons.
- With **[ENTER]** or **[F4]** **Accept**, the function will be activated.

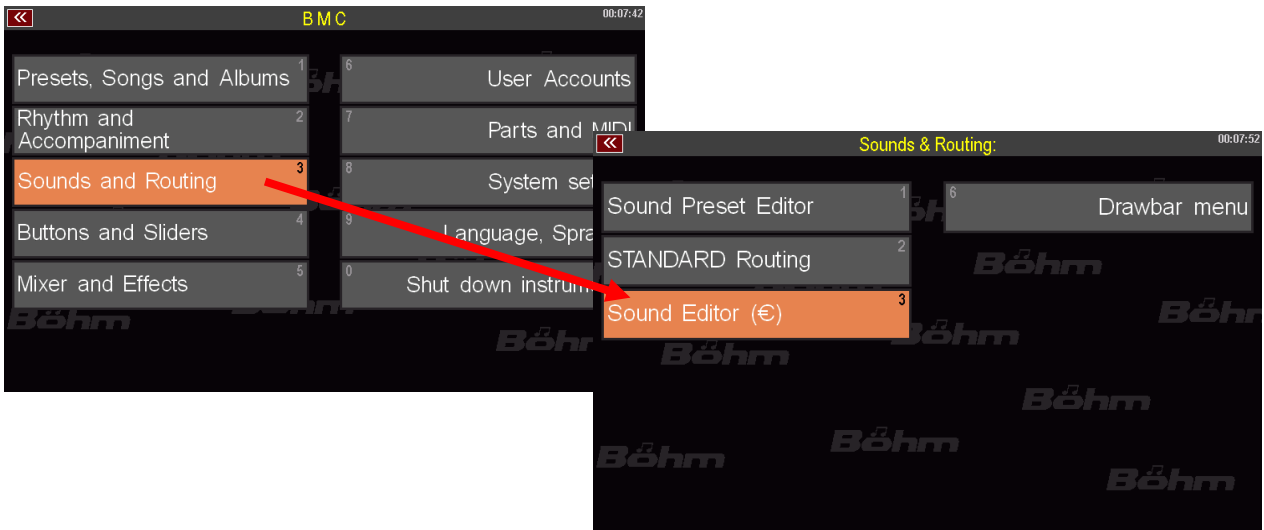


***When leaving the menu, the Restart should be selected.***  
This completes the installation.



### How to start the Amadeus Sound Editor

After activation, you can call up the **Amadeus Sound Editor** via the **BMC menu** of the SEMPRA. Select **[Menu] - Sounds & Routing (3) - Sound Editor (3)**:



If your SEMPRA is equipped with several Amadeus sound modules, you will first be asked whether you want the editor to affect all or only a specific sound module:

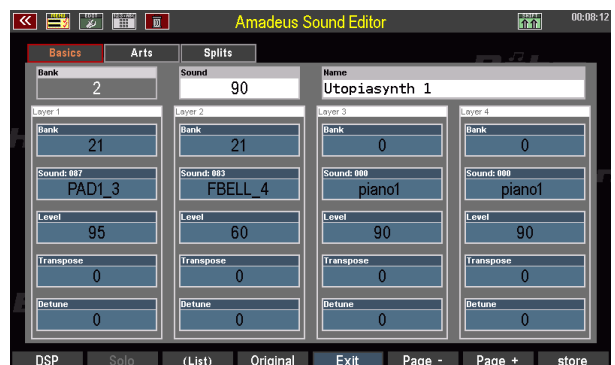
We recommend that you select "all soundgroups" here. This ensures that your changed sounds are available and can be used on all existing Amadeus modules.



For special cases you can of course also select a specific module for editing here. However, changed sounds can only be played on parts that use this module. If such sounds should be available also on the other Amadeus modules, they must be saved on a USB stick at first and then loaded back into the other modules.

More details how to save and load sound data to/from USB will follow later.

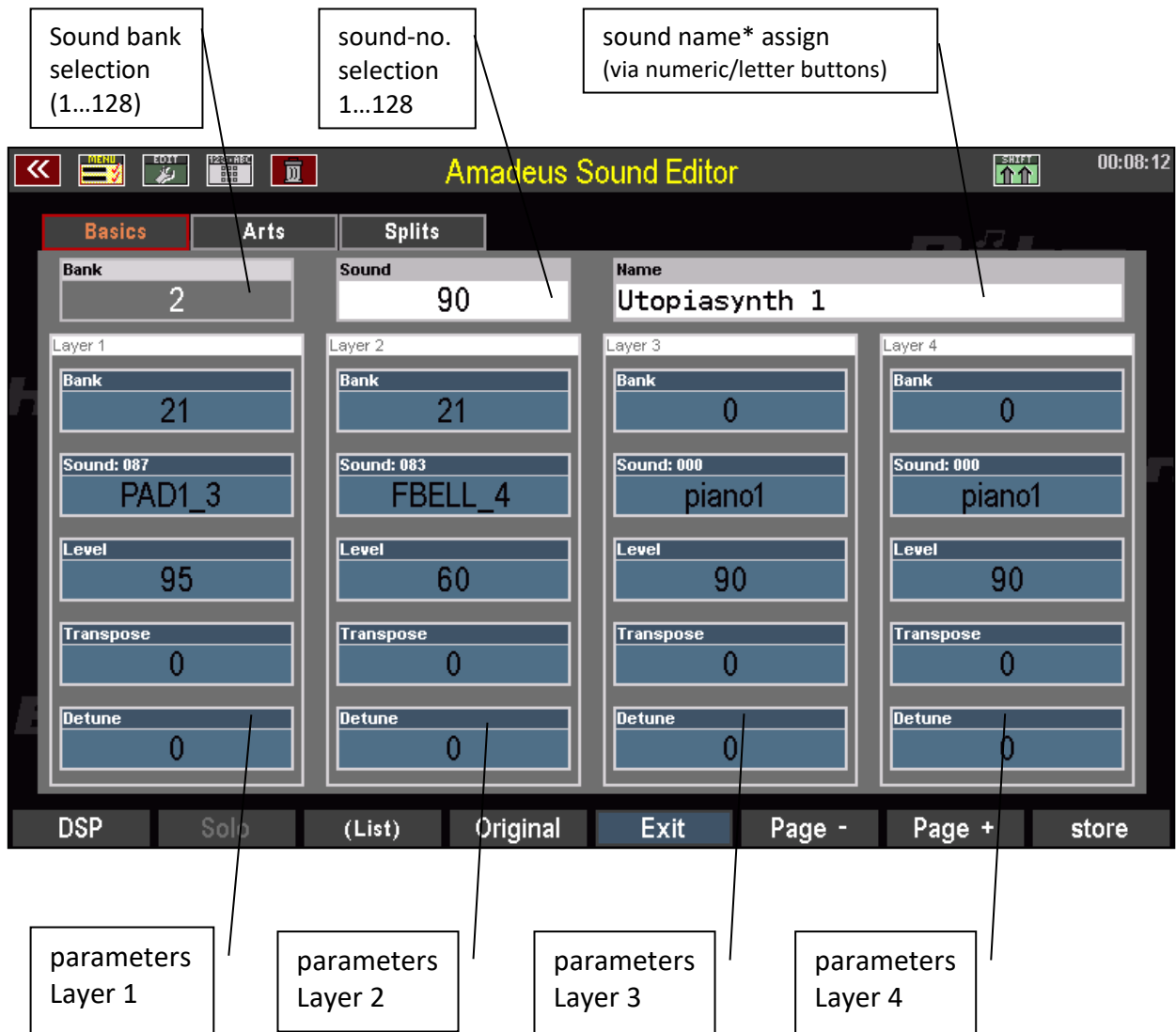
If you have made your selection here and confirmed with **[Enter]**, the **Amadeus Sound Editor** opens in the display:



## 3. An overview of the program functions

In this chapter we first want to familiarize ourselves with the basic functions of the **Amadeus Sound Editor** and the navigation in the program. The description of the individual parameters and tips for creating your own sounds will follow in Chapter 4.

After calling the editor you will see it's basic screen:



**Attention!** The sound edit affects always to the sound set for the part **UPPER 1** right. The editor always starts with this sound. You can use the "Bank" and "Sound" fields at the top of the editor screen to call up different sounds for editing.

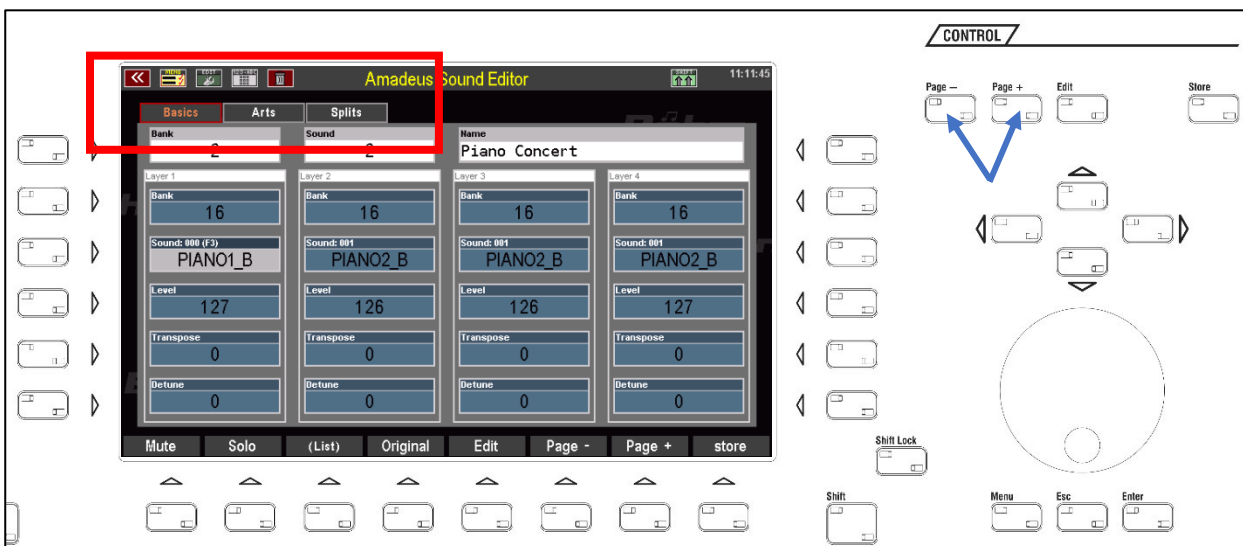
**\* Note regarding the sound name:** In order for the sound names assigned here to be displayed correctly within the parts later while playing, they must be transferred to the relevant sound presets, at first. Further details on this can be found later in a separate chapter of this operating manual.

### Selection of screen pages and parameters

For more information on the sound structure, please refer to Chapter 4 of this manual, which deals with the musical functions of the individual sound parameters. Here only so much:

An Amadeus sound can consist of up to four individual partial sounds, the so-called "layers". Each of these layers can be assigned a freely selectable **element sound**. The interaction of these layers can be defined by numerous parameters such as volume, split range, dynamic range as well as various type (articulation) parameters, some of them even work "intelligently", depending on the playing style. We are talking here about the so-called **playing parameters** of the individual layers. In the graphic on page 13 you will find the first page of these game parameters for the four layers, the so-called "Basics".

Via the buttons [Page -] / [Page+] or by directly tapping on the "tabs" at the top left of the display, you can access further menu pages with the Art- and split parameters:



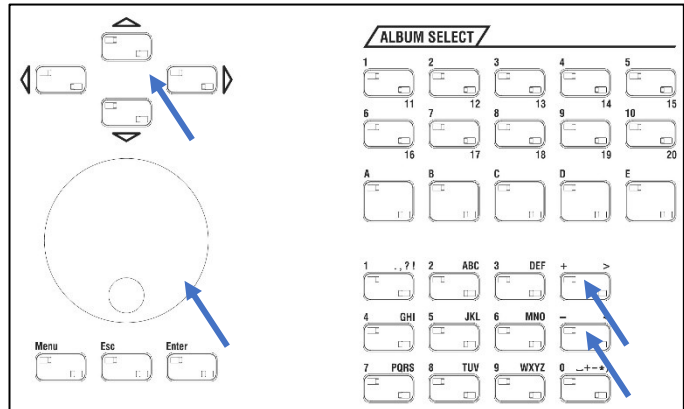
Art playing parameter (articulations)



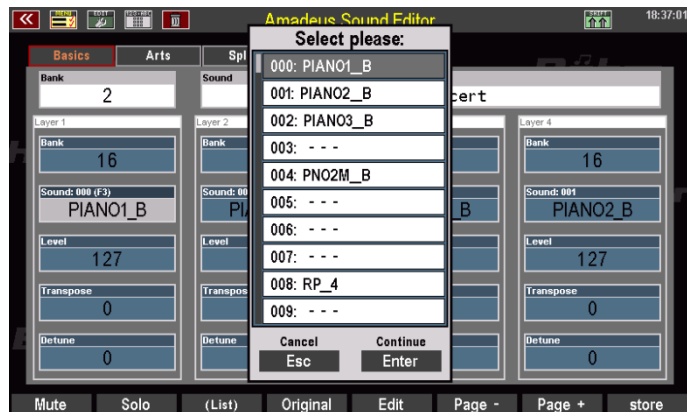
Split playing parameters

As known from other menus, you select the parameter fields to be changed by touching them directly or using the **cursor** keys.

The values can be changed then alternatively using the **data wheel** or the **[+]** or **[-]** keys in the letter/number field..



For some parameters, a list selection can also be used via the **F button** function (**List**):



In addition to the playing parameters that can be set for each of the four layers, the sound properties of each layer can also be adjusted or even completely changed using a variety of parameters.

We call these parameters the **sound parameters**.

To change the sound parameters for the layer currently selected with the cursor, press the **[F5] EDIT** button.

This button switches the display to the first page of the sound parameters for the selected layer.



The sound parameters are distributed over 4 different screen pages. To switch between the pages, use the buttons [Page-] or [Page+] right to the display, or touch directly on the the "tabs" on the screen.

current layer



page 1: volume parameters (envelope, etc.)



page 2: filter parameter (envelope, etc.)



page 3: LFO's for vibrato, tremolo, wah-wah



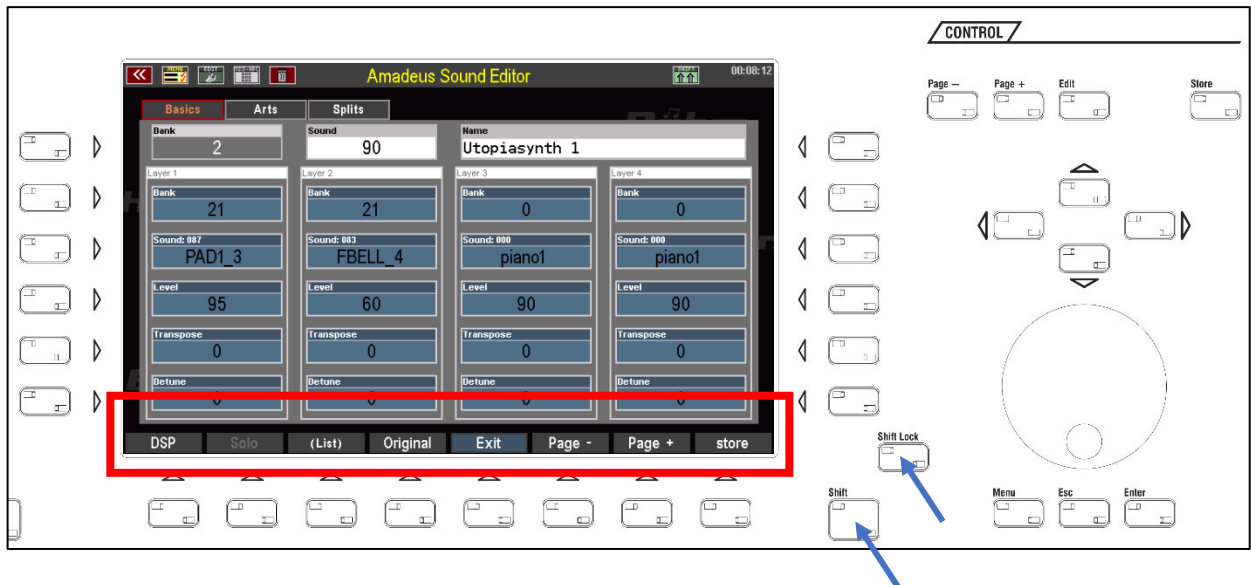
page 4: pitch parameters (envelope, etc.)

Press [F5] EXIT again to return to the pages of the playing parameters.

#### 4. F- button functions

Also in the **Amadeus Sound Editor**, the **F** buttons below the display are assigned various functions. Let's have a look at these in the following:

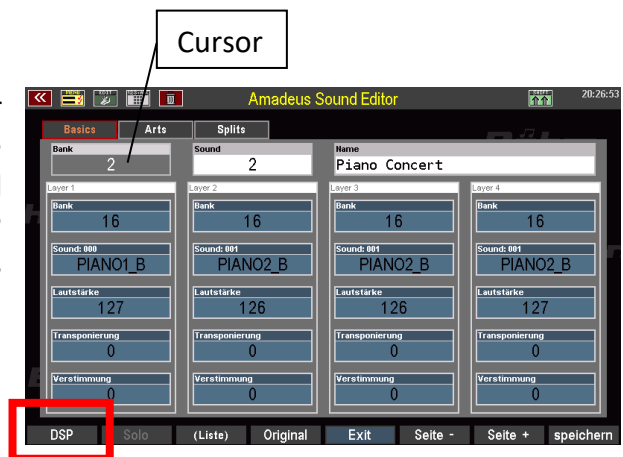
Here too, the **F** buttons are assigned two function levels. You reach the second level as long as you hold down the [Shift] button right next to the display. With the [Shift Lock] button next to it, you can also activate the Shift level permanently (as long as **Shift Lock** is switched on). You already know this from the basic operation of the SEMPRA.



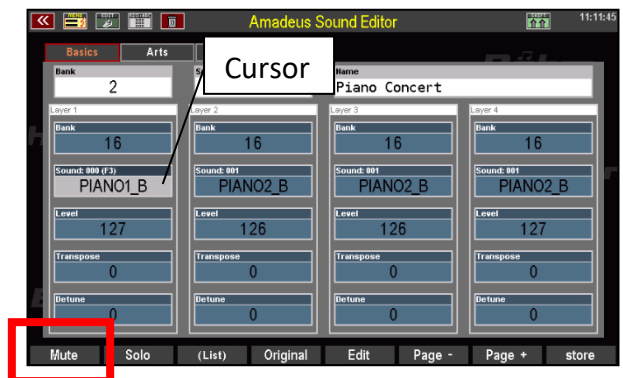
The assignment of the **F buttons** is different for the playing parameter screens on the one hand and the sound parameter screens on the other. First, let's look at the **F-button** functions in the playing parameters area:

The **[F]** button **1** is a special case:

If the cursor is in one of the **Bank**, **Sound** or **Name** fields, i.e. at the top of the selection of the sound to be edited, the **[F1]** button is assigned the **DSP** function. This takes you to the DSP Effect parameter area. We will deal with this further on in a separate **chapter of this manual**.



If the cursor is positioned on one of the 4 layers, the **[F1]** button receives the function **Mute**:



**[F1] MUTE**

This function allows you to mute the layer currently selected with the cursor.

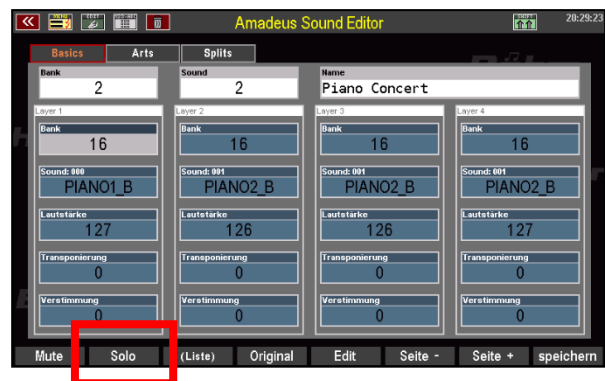
If, for example, you create sounds that do not use all layers, please switch off the unneeded layers with this function. So, they will not consume any voices and not affect the available polyphony.



If muting is activated, the **F** button is displayed in orange colour when the corresponding layer is selected.

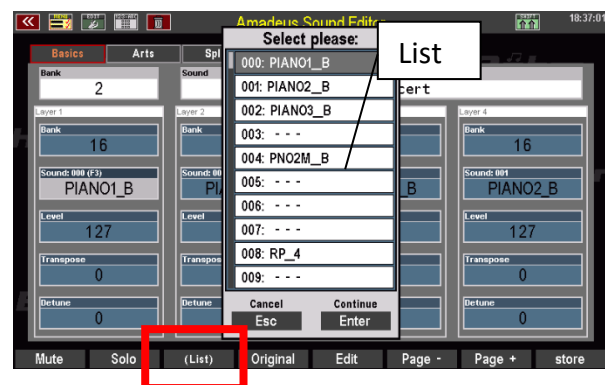
**[F2] Solo**

This function allows you to check the sound of a single layer by setting it to solo play. As long as **Solo** is activated (**F** button flashes), only the layer selected with the cursor sounds, the remaining three layers are muted.



**[F3] (List)**

If available for the selected parameter, you can activate the list selection with this button.



**[F4] Original**

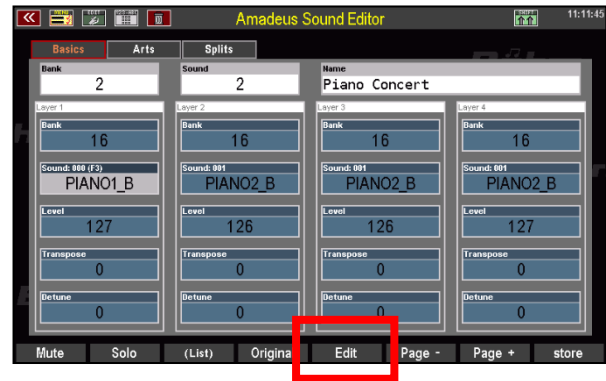
This function switches to the last stored version of the sound. This allows you to compare your current edited version of the sound directly with the original version at any time. When you store the changed sound, the new version is taken over as the "original" version, of course.





### [F5] Edit

Switches from the playing parameters to the range of sound parameters for the selected layer.



### [F6] / [F7] Page - / Page +

Use these buttons to switch between the individual screen pages. They correspond to the control panel buttons [Page-] bzw. [Page+].



### [F8] store

When you have finished editing your sound, you can save it using this button.

This **F** button corresponds to the [Store] button on the panel, which you can of course also use to trigger the storing process.

After pressing the [F8] store button (or the [Store] button on the panel), a selection box appears in the display. Here you can select the sound location (sound bank and sound number within the bank) where you want to save the new edited sound. Already occupied positions are indicated by the sound name in the "to number" field.

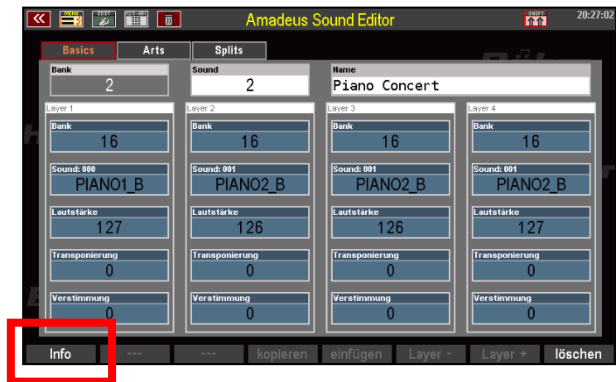


If you do not make any changes and confirm directly with [Enter], the sound is saved to the current location.

Let's now look at the **Shift** layer of the **F** buttons within the playing parameters. You can access these functions by simultaneously pressing the **[Shift]** or **[Shift lock]** button and the corresponding **F** button:

**[F1] Info**

Here you get information about the sound memory and can execute different functions to the memory:

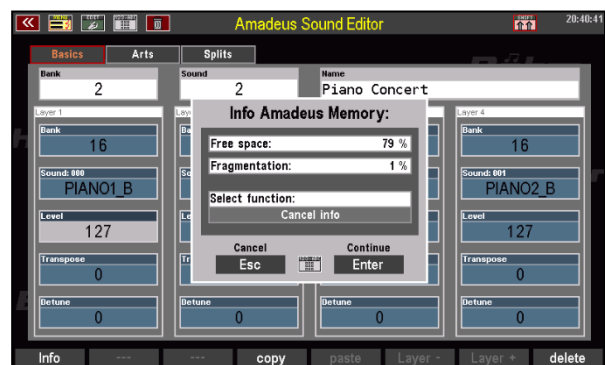


**Free space:**

shows you the percentage of the currently available sound memory.

**Fragmentation:**

Similar to the hard disk in a PC, the sound memory of the AMADEUS sound system is fragmented after frequent storage and deletion of data, i.e. file fragments that have already been deleted occupy storage space that is no longer available for new data. The degree of fragmentation is displayed as a percentage.

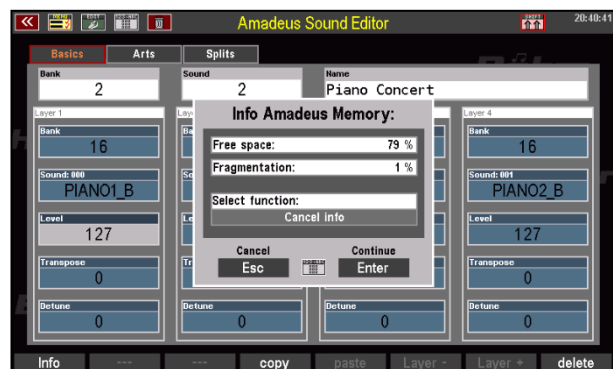


From time to time - especially if you frequently edit sounds with the Sound Editor - you should defragment the memory as described below. This will free up the occupied memory and increase the free memory that can still be used.

In this field you can select three different options via the **data wheel** or the **+/-** buttons:

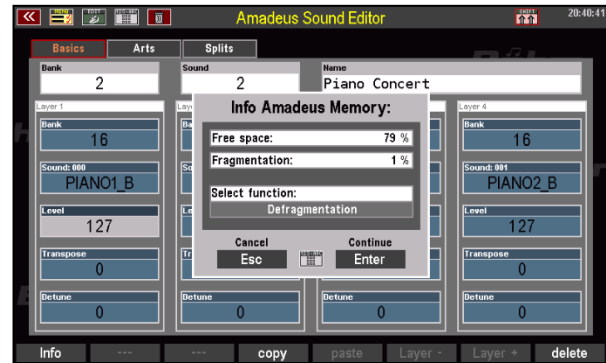
**Cancel info:**

If this option is selected, you can leave the memory info directly by pressing the **[Enter]** button.



### Defragmentation:

If you select this option and confirm with **[Enter]**, the defragmentation of the sound memory (see above) is performed. This releases blocked memory sections and increases the usable memory area accordingly.



### Clear user memory:

With this function you can delete the complete user sound memory after confirmation with the **[Enter]** button.

**Attention!** The factory sounds and also the sounds from possibly installed optional software packages by Böhm are of course not deleted, they are still available without restrictions.

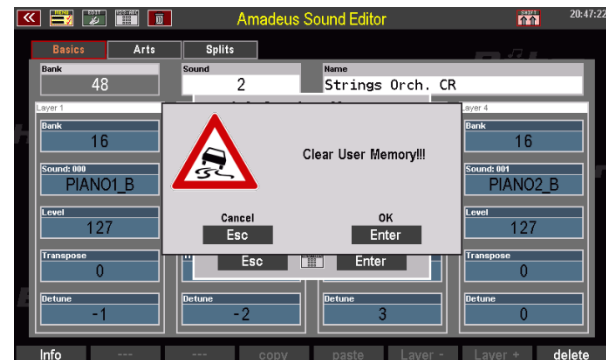
However, the deletion process affects all user sounds, i.e. all your own sounds that you have stored in the Amadeus to date. And this will affect to the Amadeus sound module(s) you've previously selected for editing when calling up the Sound Editor. If you have started the sound editor for "all sound modules", the sound memory on all sound modules in the SEMPRA will also be deleted.

Therefore you should store your own sounds to a USB stick before clearing the sound memory, as they will be lost when you delete the memory! We will describe how to save/load sound data to/from USB **later in this manual**.



If you confirm the function "Clear user memory" with **[Enter]**, a security prompt appears:

At this point you can cancel the function with **[ESC]**.

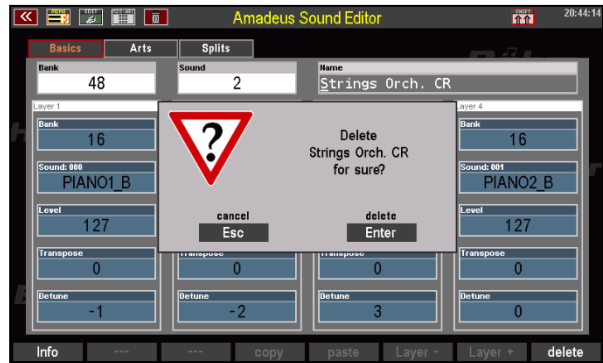


If you confirm with **[Enter]**, the function is executed and the sound memory is cleared.

**[F8] delete**

You can delete the individual sound at the current position, for example to retrieve a factory sound at this position.

Press **[Enter]** to confirm the deletion. Press **[ESC]**, if you want to cancel the function.

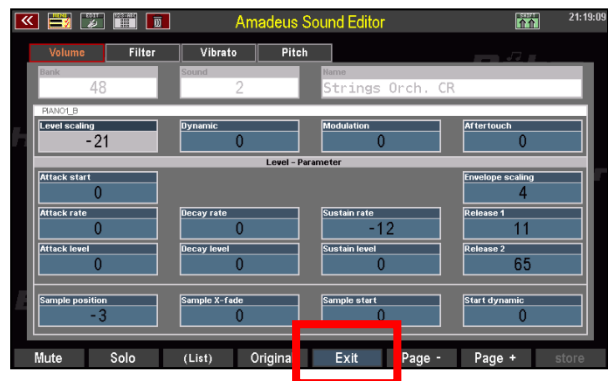


**F-button functions on sound parameter pages**

When you are on the *sound parameter* pages of the Sound Editor, some **F buttons** are assigned different functions. We would like to introduce these functions here as well:

**[F5] Exit**

This button takes you back from the sound parameters to the level of the playing parameters.



Some further functions are available on the **shift** level of the **F-buttons** in the sound parameters:

**[F4] copy**

With this button you can copy the current layer to the clipboard, to copy it to another layer position.



If you have pressed **[F4] Copy**, the **[F5] Paste** button flashes. There is now a layer in the clipboard that can be pasted from there again.

### **[F6] Layer - / [F7] Layer+**

With the buttons **[F6] Layer - / [F7] Layer +** you can switch between the 4 layer positions. The current position is shown in the white bar above the sound parameters.



Select the layer position to which you want to copy the buffered layer.

Then press the **[F5] paste** button. The temporarily saved layer will now be inserted at the newly selected position (and the settings there will be overwritten, of course).

You have now learned the basic handling and navigation in the **Amadeus Sound Editor**. In the following chapter it will be really exciting: We will get to know the actual playing and sound parameters and their meaning and effects. The actual adventure begins and you become a sound designer - have fun!

## 5. Sound editing

This chapter now deals with the actual sound programming and thus the "creative" part of the editor. Here you will find the necessary explanations on the various playing, sound and effect parameters of the **Amadeus Sound Editor** and their tonal and musical significance. With the information provided here, you will be able to use the various possibilities specifically for the realization of your sound ideas.

But in case of doubt, as always when it comes to creative development, the same applies here: just try it out! After all, you can't "break" anything.

First some basic information about the sound structure and the effect of the different parameters, even if we have already got to know some of them:

- ➔ AMADEUS sounds consist of up to four individual partial sounds, the so-called "layers".
- ➔ The sound basis of the layers are the so-called *element sounds*. These are the basic sounds of the factory AMADEUS sound banks. An overview of the element sounds can be found in the appendix to this manual.
- ➔ The interaction of the individual layers in the overall sound is determined by a large number of so-called *playing parameters*. For example, the sound (bank and program number of the element sound), the volume, the transposition, the tuning, the keyboard range, the dynamic range and various special play modes, the so-called "Art" parameters can be set for each layer.
- ➔ Each layer can be sound adjusted or even completely changed via a variety of *sound parameters*. In addition to various sample parameters, the following can be adjusted:
  - Volume parameter (DCA = Digital Controlled Amplifier) incl. envelope (ADSR = Attack, Decay, Sustain, Release)
  - Filter parameter (DCF = Digital Controlled Filter) incl. envelope (ADSR)
  - 2 modulation generators = LFO's (Low Frequency Oscillator) for frequency vibrato, amplitude vibrato (Tremolo) and filter vibrato (Wah-Wah)
  - Autopitch functions (DCO = Digital Controlled Oszillator) incl. envelope (ADSR) for automatic pitch sliding effects
- ➔ A separate editor page is available for each of these parameter groups to ensure clear programming.

- ➔ Various DSP effects can be activated and edited for the overall sound. AMADEUS allows you to edit a sound with up to 6 effects at the same time:
  1. Compressor/Limiter
  2. Wah-Wah filter
  3. Distorsion
  4. 4-band equalizer
  5. Chorus/Phaser
  6. Delay (echo)
  
- ➔ You can also assign sounds to different audio outputs (output mix). The corresponding settings are also made in the DSP section:
  - Stereo:** the normal stereo output of the AMADEUS sound generation.
  - D-MiX Rotor:** the sound is mixed via the D-MiX Rotor effect DSP or via the SingleOut 1 (single output 1) (depending on the settings in the D-MiX mixer).
  - SingleOut 2:** the sound is output via SingleOut 2 (single output 2) of the D-MiX
  
- ➔ Overall settings for DSP effects and the output routing can be saved as effect presets in the Sound Editor for later use in editing other sounds.

When editing sounds, please observe the following notes:

- All sound parameter changes are made relative to the values already present in the starting sound. This means that the intensity of the parameter effect can vary depending on the selected starting sound at the same setting. It may also be necessary to enter negative values in order to achieve the desired effect.
  
- Different parameters cannot be activated in individual element sounds. They are also not editable for such element sounds, then. In these cases, a change has no effect to the sound.

## Playing parameters per layer



On the start page of the editor you will see the first group of playing parameters for the four layers, the so-called "Basics". For each layer, the parameters are arranged in columns one below the other.

### playing parameters page 1 - Basics

#### **Bank [0...127] Bank no. element sound:**

Select the desired element soundbank according to the list in the appendix.

#### **Sound [0...127] Sound no. Element sound:**

To select the desired element sound within the selected bank.

#### **Level [0...127]**

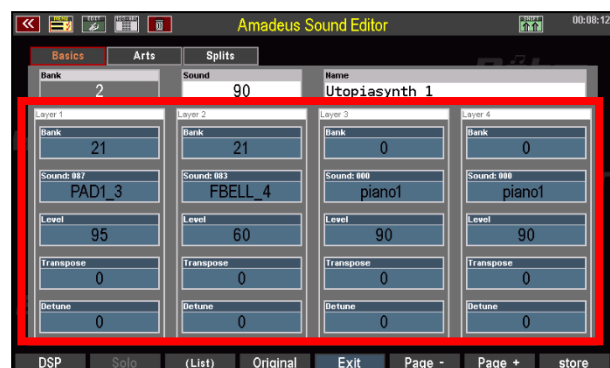
Volume setting for the layer

#### **Transpose [-48...+48]**

The pitch of the layer can be increased or decreased in semitones. 12 semitones correspond to 1 octave

#### **Detune [-127...+127]**

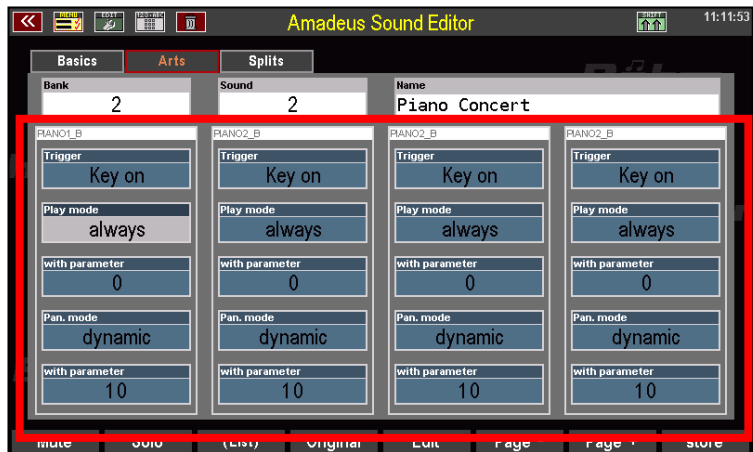
The layer can be detuned up to a semitone upwards or downwards.





## Playing parameters page 2 - Arts

This page contains the so-called "Arts" parameters (Arts = Articulations). Here you can determine how the different layers interact and which playing constellations they are used for. For example, you can specify that a layer will only become active when a certain number of keys are played simultaneously, but not as long as only one key or less than the number of keys entered is played, and so on.



Let's take a closer look at the different parameters:

### Trigger:

Here you can determine whether the layer should be played (triggered) when a key is pressed [**Key on**] or when the key is released [**Key off**].

**Note:** When triggering with **Key off**, the sound is only played for a very short time and immediately deleted again. The sound must therefore have a correspondingly long release phase (see volume parameters) to be audible.

An example for **Key off** can be found in the sound "Cembalo a" (AMADEU sound bank 28, no. 8): Layer 2 is programmed as Key-Off and generates the typical string break noise as it sounds when releasing the keys of a harpsichord.

### Play mode / with parameter

These parameters determine whether the layer always sounds or only sounds when a certain number of keys is played. Different random modes can also be set. In this way you can, for example, let a slide sound for a guitar sound randomly.



The function itself is set under **Play mode**, the number of keys under **with parameter**.

In the parameter **Play mode**, you enter how the dependency on the number of pressed keys (**with parameters** for Play mode) should be:

- Always**      The layer plays regardless of the number of keys pressed.
  
- nb. keys =**      *number keys =* : the layer plays only if the number of pressed keys is equal to the parameter value.  
 Example: nb. keys = 1, Keys = 1, the layer plays only on the first key pressed on this part  
 Example: nb. keys = 0, Layer only plays after the last key has been released (only useful with Trigger = Key Off)
  
- nb. keys >**      Layer plays only if more keys than the number entered here are pressed.  
 Example: nb. keys > 1, Layer only plays if more than 1 key is pressed - so exactly NOT on the first key pressed.
  
- nb. keys <**      Layer only plays if fewer keys than entered in the parameter are pressed.
  
- nb. keys <>**      Layer only plays if the number of keys pressed does not match the number entered in the parameter.

The values above **63** have a special status for this parameter.

Here, a random number between 0...3, 1...4, 0...7 and 0...15 is determined and compared with the number of keys played simultaneously.

Depending on the sound type and playing style, different random tones of the layer will occur.

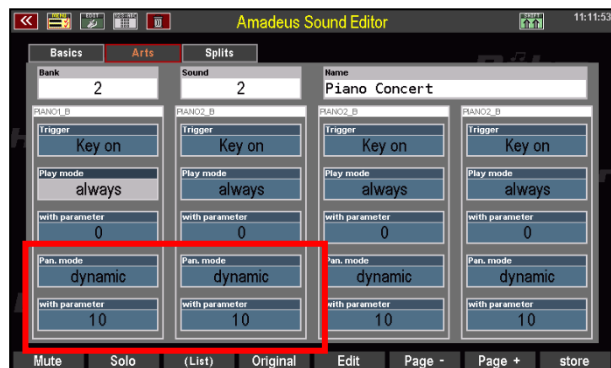


Depending on the play mode, sporadic tones of the layer or random "dropouts" can be programmed. This is useful, for example, for noise sounds such as the guitar slide, which should only sound randomly from time to time.

**Panorama mode / with parameter:**

These parameters determine the position of the layer in the stereo panorama. Different modes can be set, the effect of these modes is determined by the value set for **with parameter**.

For **with parameter** a value between - **63** (far left) and + **63** (far right) can be set (0 = **middle**).



The different panorama modes:

**static:** Layer sounds with the panorama position set for **with parameter**

**dynamic:** Layer changes its panorama position across the keyboard

- 63 -> 0: ascending from left to right

+ 63 -> 0: ascending from right to left

**alternate:** Layer panorama changes between the left and right position

- 63 -> 0: starting on the left

+ 63 -> 0: starting on the right

**odd / even:** Layer changes its panorama position from note to note (according to the c/c# separation of a pipe organ)

- 63 -> 0: starting on the left

+ 63 -> 0: starting on the right

### Playing parameters page 3 - Splits

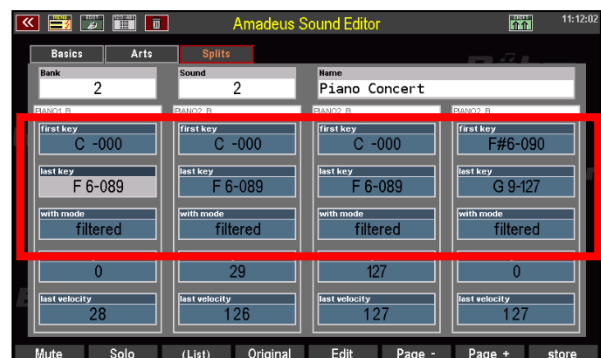
On this page you can set the split and dynamic ranges for each layer. The parameters correspond roughly to the functions of the corresponding part parameters.



### first key / last key [-1...127] / with mode

For each layer a separate keyboard zone can be defined in which it can be played (split zone).

The first (left) and the last (right) key of the desired play area are entered.



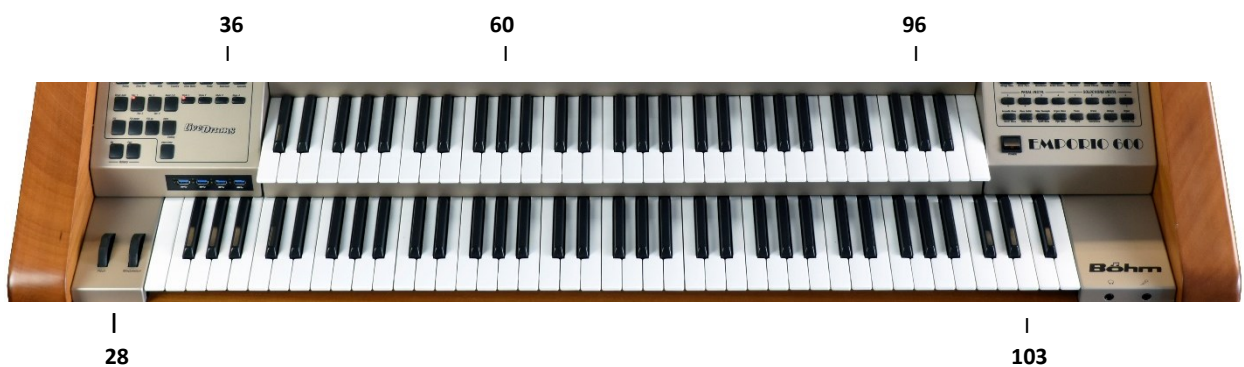
For the split function there are two different modes available:

**filtered:** Layer plays only within the defined key area

**repeated:** Layer plays the defined key area continuously repeating over the entire keyboard

If "-1" is set for **first key**, the layer plays the note set under **last key** on all keys (corresponds to the key zone mode "fixed" in the selector/part editor).

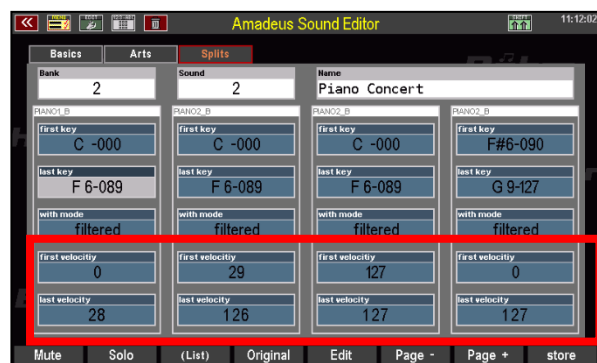
The (MIDI) keyboard is defined by 128 keys. The manuals of your SEMPRA represent only a section of the actually defined keys. Here are some key numbers on the 61 and 76 key manuals for your orientation:



**first velocity / last velocity [-1...127]**

For each layer a dynamic range can be defined in which it should sound.

The velocity reached while playing must be within the range defined here, so that the layer sounds.



If "-1" is set for **first velocity**, the layer plays with the fixed velocity set for **last velocity**.

**Sound parameter per layer**

After the playing parameters we now want to deal with the sound parameters per layer. Here you make the actual sound changes to the element sounds and thus determine the sound characteristics of the overall sound.

Now select a layer for sound editing with the cursor and press the **F** button **[5] Edit** to switch to the sound parameter display:



On this page you can see the first page of the sound parameters (the Level or volume parameters), selected here for layer 1. For all sound parameters the following applies: Just try them out directly, while you follow our explanations here. This is the quickest way to get a feel for how the individual parameters work.

### Sound parameter page 1: Level- and sample parameter

The first page of the sound parameters contains the level- or volume parameters for the layer. Here you can set a volume envelope with the following sections: **Attack - Decay - Sustain - Release**.

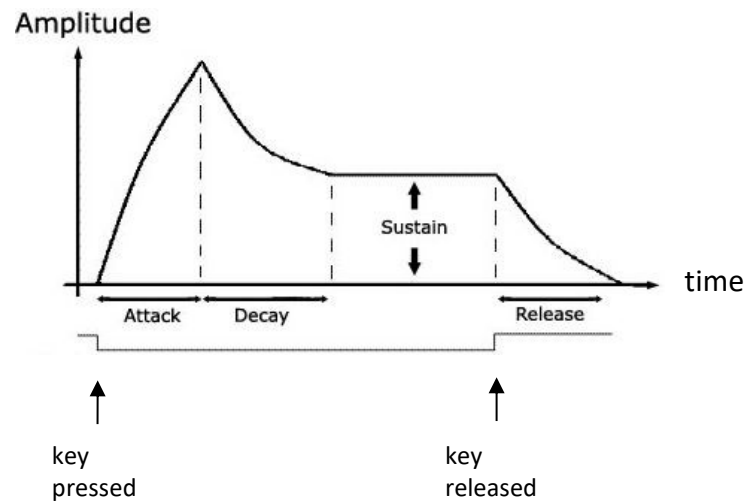
These parameters can be used to set the volume progression of the sound over the duration of the tone (key pressed to key release, or the release afterwards).



Before we continue with the description of the parameters, we would like to give you a few explanations of the term "**envelope**". This term will also be used later in connection with volume, filter and pitch parameters.

## Envelope

The term **envelope** is most easily explained by a graphical representation:



The envelope describes the course of a parameter (volume, timbre or filter, pitch) over the time axis, i.e. between the beginning and the end of the tone.

We distinguish four phases in the course of the envelope curve. According to the names for these 4 phases we also speak of a so-called **ADSR** envelope (**A**ttack, **D**ecay, **S**ustain, **R**elease):

### Attack: rise phase

<b>Attack start</b>	Intensity when starting the tone (key pressed)
<b>Attack rate</b>	rise time
<b>Attack level</b>	Intensity at the end of the Attack phase

### Decay: Decay phase towards continuous tone

<b>Decay rate</b>	decay time
<b>Decay level</b>	intensity at the end of the decay phase

### Sustain: holding phase

<b>Sustain rate</b>	rise time to sustain level
<b>Sustain level</b>	maximum intensity in the holding phase

### Release: Decay phase after releasing the key

<b>Release rate</b>	decay time to the end of the tone
---------------------	-----------------------------------

The **Amadeus Sound Editor** allows you to create individually envelopes for volume, filter and pitch gradients.

Let's start with the **Level functions**:



In the upper row you will find some functions that allow you to influence the volume of the layer using various controls:

### **Level-Scaling [-63...+63]**

Scaling of the volume curve via the keyboard

- values < 0:** volume increases to the higher notes.
- values > 0:** volume decreases to the higher notes.

### **Dynamic-curve [-7...+7]**

Selecting a velocity curve for the layer:

- values < 0:** Negative curves of different slope (sound gets louder the more the weaker the keys are struck).
- Werte > 0:** Positive curves of different slope (sound becomes louder, the more the harder the keys are struck).

### **-amplification [0...32]**

Determines the degree to which the dynamic increases or decreases with the strength of keystroke.

- value 0:** no dynamic

### **Offset [-36...+36]**

Starting point of the dynamic curve, i.e. the minimum dynamic range that is achieved, even with a very slow keystroke

### **Modulation [-127...+127]**

Intensity with which the volume of the layer can be controlled via the modulation wheel

- values < 0:** volume reduction with stronger modulation
- values > 0:** increasing the volume with stronger modulation

### Aftertouch [-127...+127]

Intensity with which the volume of the layer can be controlled via the aftertouch.

**values < 0:** volume reduction with stronger aftertouch

**values > 0:** Increasing the volume with a stronger aftertouch

Now we come to the parameters of the actual volume envelope. You will find them in the middle section of this display page:



Compare the parameter names once with our explanations of the envelope elements on page 31. Then the parameters will be immediately understandable because they describe the four phases (**ADSR**) of the envelope or their progression:

### Attack Start [-127...+127]

Volume when key is pressed (start of attack phase of volume envelope)

### Attack Rate [-127...+127]

Rise time until attack level is reached

### Attack Level [-127...+127]

Target volume at the end of the attack phase

**Note on the AMADEUS element sounds:** Almost all preset volume envelopes start at full volume (attack start), have a maximum attack rate and also a maximum attack level. The further course is individual.

### Decay Rate [-127...+127]

Time of the decay phase

### Decay Level [-127...+127]

Volume at the end of the decay phase

### Sustain Rate [-127...+127]

Time to reach sustain level

### Sustain Level [-127...+127]

Target volume in the sustain phase



**Release 1 [-127...+127]**

Decay time after releasing the key

**Release 2 [-127...+127]**

same as Release 1, but decay time with piano (sustain) pedal depressed

**Envelope Scaling [-63...+63]**

Compression / stretching of the envelope times across the keyboard

**values < 0**= stretching in direction to the higher keys

**values > 0**= compression in direction to the higher keys

**Temposynchronous envelope**

If the **Envelope Scaling** is set to **-1**, the entire envelope is tempo-synchronized! This is important for envelopes that have a certain "inherent rhythm", e.g. "swell-brass" sounds. The "zero tempo", i.e. the standard tempo for this envelope, is 120 bpm. With a higher rhythm tempo, the envelope is also "faster" and vice versa.

**Sample parameters**

In addition to the volume parameters, we find the so-called sample parameters on this page of the editor. These are the parameters we want to deal with now:

**Sample position [-127...+127]**

Moves the position of the original sample on the keyboard. Depending on the element sound the sound can be duller (negative values) or sharper (positive values) or even extremely distorted.

**Sample X-fade [-127...+127]**

Same as Sample Position, but the degree of displacement of the original sample depends on the velocity:

**values < 0**: max. displacement upwards with softer velocity

**values > 0**: max. displacement upwards with stronger velocity

**Sample start [0...255]**

The sample start point can be moved from the actual start point (input 0) further into the sample data (values > 0). This can be used, for example, to reduce blowing noises or achieve a more direct sound input.

**Start dynamic [-127...+127]**

Same as Sample Start, but the degree of shift of the Sample Start Point depends on the:

- values < 0:** the starting point moves forward when the velocity is harder.
- values > 0:** the starting point shifts back when the velocity is harder.

**Sound parameter page 2 – Filter parameters**

The filter can be used to change the sound characteristics of the sound. This is done by filtering out or boosting certain frequency ranges. Known effects that can be achieved with filter modulations are, for example, the well known wah-wah effects. The most important filter parameters:

**Frequency:** determines the cut-off frequency from which higher frequency ranges are filtered out. The lower this parameter is set, the duller the sound becomes.

**Resonance:** is achieved by a negative feedback, in which the output signal of the filter is again fed to the filter input in a dosable quantity. Extreme settings distort the sound and can lead to overdriving.

**Filter envelope:** As for the volume, there is also an ADSR envelope for the filter. This has the same structure as the volume envelope, i.e. it has the same phases and time parameters. The only difference is that this envelope has an effect on the sound filter and thus on the timbre. This makes it possible, for example, to create the familiar "wah-wah" or "jau-jau" effects.

Let's take a closer look at the various parameters, first of all the general parameters:



### Filter-type [-- / LP / BP / HP]

Selection of the filter type for the layer:

**LP (Low Pass):** With this type of filter, only the frequencies below the set frequency are allowed to pass. Higher frequencies are filtered away.

**HP (High Pass):** With this type of filter, only the frequencies above the set frequency are allowed to pass. Lower frequencies are filtered away.

**BP (Band Pass):** With this filter type, the frequency ranges above and below the set frequency are filtered out.

-- : on factory sounds: The filter type stored in the sound applies

### Filter-slope

This parameter determines how strong the filter effect starts at the set frequency. At 12 dB the filter starts more softly, at 24 dB more directly.

### Frequency [-127...+127]

determines the starting point of the filter from which higher frequencies are filtered out. The lower the value, the duller the sound becomes.

### Frequency scaling [-63...+63]

Scaling of the filter progression via the keyboard

**values < 0:** Filter effect increases in the direction of the higher keys.

**values > 0:** Filter effect decreases with pitch.

### Frequency dynamic [-127...+127]

Intensity with which the filter is controlled by the velocity response. This makes it possible to change the sound through dynamic playing. With a harder touch, the sound becomes brighter (positive values) or duller (negative values).

### Frequency modulation [-127...+127]

Intensity with which the filter can be controlled via the modulation wheel

**values < 0:** Reduction of the start frequency with stronger modulation

**values > 0:** Increasing the start frequency with stronger modulation

**Frequency aftertouch [-127...+127]**

Intensity with which the filter intensity can be controlled via the aftertouch

**values < 0:** Reduction of the start frequency with a stronger aftertouch

**values > 0:** Increased of the start frequency with stronger aftertouch

**Resonance [-127...+127]**

Intensity of the filter resonance (feedback). Attention! At very high values, depending on the constellation of the other filter parameters, there may be an overdrive (yelping or "squeaking").

**Resonance scaling [-63...+63]**

Scaling of the resonance via the keyboard

**values < 0:** Resonance decreases with higher keys.

**values > 0:** Resonance increases with higher keys.

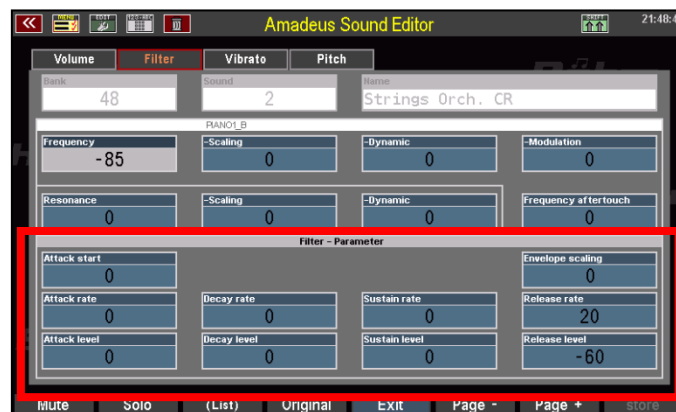
**Resonance dynamic [-127...+127]**

Intensity with which the resonance is controlled by the velocity.

This makes it possible to change the sound through dynamic playing.

**Filter envelope**

The following are the parameters for the filter envelope. The structure and significance of the parameters are comparable to those of the amplitude envelope:

**Attack start [-127...+127]**

Filter frequency when the key is pressed (start of the attack phase of the filter envelope)

**Attack rate [-127...+127]**

Rise time of the frequency until the attack level is reached

**Attack level [-127...+127]**

Target frequency at the end of the attack phase

**Decay rate [-127...+127]**

Descent time of the decay phase

**Decay level [-127...+127]**

Filter frequency at the end of the decay phase

**Sustain rate [-127...+127]**

Time to reach sustain level

**Sustain level [-127...+127]**

Filter frequency in the sustain phase

**Release rate [-127...+127]**

Duration of the reduction of the filter frequency to the release level after releasing the key

**Release level [-127...+127]**

Target filter frequency at the end of the release phase

**Envelope Scaling [-63...+63]**

Compression / stretching of the envelope times across the keyboard

**values < 0**= stretching in direction to the higher keys

**values > 0**= compression in direction to the higher keys

**Temposynchronous envelope**

If the **Envelope Scaling** is set to **-1**, the entire envelope is tempo-synchronized! This is important for envelopes that have a certain "inherent rhythm", e.g. "swell-brass" sounds. The "zero tempo", i.e. the standard tempo for this envelope, is 120 bpm. With a higher rhythm tempo, the envelope is also "faster" and vice versa.

**Notes on the filter envelope curve:**

Especially in the attack as well as in the release phase the amplitude and the filter envelope influence each other. For example, if you set a lower release rate value in the filter envelope than in the amplitude envelope, the filter may close faster than it corresponds to the release phase due to the release value in the volume envelope.

The filter envelopes usually start at the factory sounds in the same way as the volume envelopes (attack phase), but have a shortened release phase! For decaying sounds (longer release phase in the amplitude envelope) this must be considered and a longer release phase set in the filter envelope!

Also keep in mind that two release phases can be set on the volume side, one fundamental and one triggered by the sustain pedal. For a clean reverberation, the release phase of the filter should be at least as long as the longer of the two volume release phases.

**Sound parameter page 3 – Vibrato (LFOs)**

The AMADEUS system has 2 separate LFOs (Low Frequency Oscillators = modulation generators) which serve as modulation sources for influencing the **pitch** (frequency vibrato), the **volume** (tremolo or amplitude vibrato) or the **filter** (timbre vibrato or wah-wah effects). The LFOs generate a low-frequency, periodically oscillating control signal with a selectable curve characteristic, which can be used to influence the above-mentioned parameters.



In the **Amadeus Sound Editor** the two LFO's are assigned as follows:

**LFO 1** generates the frequency vibrato

**LFO 2** generates the common vibrato to control tremolo and wah-wah

Since the LFO parameters for the three modulation targets are identical, we'll consider them together below for the three areas of *vibrato*, *tremolo*, and *wah-wah*.

**Attention!** The **Frequency** and **Fade In** parameters for tremolo and wah-wah react in parallel when changed, as they affect the same LFO. These parameters are therefore always valid for both modulation targets.

The **modulation** and **aftertouch** portions can be set separately for tremolo and wah-wah.

**Detune, Level, Filter [-127...+127]**

These parameter fields serve to determine the intensity with which the LFO's affect the respective effects.

**Note:** Normally the generator is started at phase 0 for each note start. With a positive value\* the generator curve runs in a positive direction, with a negative value in a negative direction. Two sounds on different layers can have opposite phase curves (slow opposite phase tremolo on separate stereo channels = Leslie).



\*Positive AND negative values can only be achieved on element sounds with vibrato value set to 0 (factory setting), otherwise the values entered will only be amplified or attenuated!

### Delay [-127...+127]

This parameter is used to determine the time delay until the modulation is used after the key is pressed.

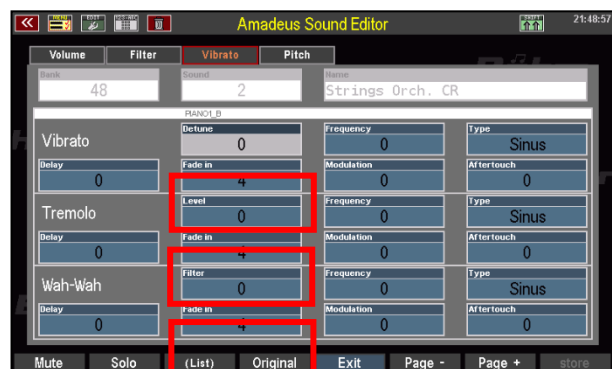
Thus, for example, a transient vibrato can be generated that corresponds to the behavior of most solo instruments or the human voice.



### Fade in [-9...+127]

This can be used to set the duration of the effect increase up to full intensity. For tremolo and wah-wah the same value is used here as well.

**Note:** Natural instruments usually have phase-locked courses, i.e. all tones vibrate in phase (and are not individually influenced or started at the touch). The setting for this is made in the parameter **Fade in**:



**value 1...127**

**value 0**

**value -9...-1**

-> soft ... hard use of the individual vibrato

-> phase-locked vibrato (continuously running vibrato)

-> phase-locked, tempo-synchronous vibrato (long...short notes-values). The values **-9, -8, -7, ... -1** correspond to the note values in the sequence: whole, whole triol, half, half triol, quarter, quarter triol, eighth, eighth triol, sixteenth.

### Frequency [-127...+127]

Determines the speed of the modulation. Tremolo and wah-wah use the same frequency, as both effects are controlled by the same modulation generator.



### Modulation [-127...+127]

The LFO effect for the three effects can be controlled by the modulation wheel. Here you can determine the intensity with which the modulation wheel acts on the LFOs



### Type

The waveform for the modulation oscillation can be determined here.



**Sinus:** even oscillation around the initial value, which is the typical vibrato

**Sawtooth +:** Sawtooth shaped oscillation upwards from zero point

**Sawtooth -:** Sawtooth vibration downwards from zero point

**Square:** rectangular oscillation (direct switching between the oscillation endpoints) for special effects like trills, etc.

**Random:** random periodic shifts of the waveform, for "rough" sounds like overblow effects on saxophone or flute.

**Sinus pos.:** similar to sine, but starting from zero only in ascending direction

### Aftertouch [-127...+127]

The LFOs can also be controlled via the aftertouch of the keyboards (pressure vibrato). The intensity with which the aftertouch affects the respective LFO can be set here.





## Sound parameter page 4 – Autopitch envelope



By pitch we mean the tuning of the sound or the pitch. With the help of the autopitch functions this tuning can be influenced in many ways. Even automatic pitch changes, such as dragging a note up or down when pressing a key, are possible. Here, too, control is via an **ADSR** envelope.

**Envelope [-127...+127]**

Here you can set the intensity with which the autopitch envelope affects the pitch of the layer. Negative values reverse the pitch direction.

**Dynamic [-127...+127]**

The intensity of the pitch envelope can also be controlled via the velocity response. Here you can adjust the degree.

**Scaling [-63...+63]**

The degree of stretching / compression of the envelope times over the keyboard can be changed here.

**value < 0**= stretching in direction to the higher keys

**value > 0**= compression in direction to the higher keys

The actual envelope parameters are like those of the volume and filter envelopes. Here you influence the pitches:

**Attack start [-127...+127]**

Pitch at key pressing (start of the attack phase of the pitch envelope)

**Attack rate [-127...+127]**

Time to reach the pitch defined as attack level

**Attack level [-127...+127]**

Target pitch at the end of the attack phase

**Decay rate [-127...+127]**

Ascent or descent time of the decay phase

**Decay level [-127...+127]**

Pitch at the end of the decay phase

**Sustain rate [-127...+127]**

Time to reach sustain level

**Sustain level [-127...+127]**

Pitch in the sustain phase

**Release rate [-127...+127]**

Duration of the pitch change to the release level after releasing the key

**Release level [-127...+127]**

Target pitch at the end of the release phase

## 6. AMADEUS DSP effects

### General information about the DSP effects

As a particularly valuable extension, the AMADEUS sound generation offers so-called **DSP (Digital Signal Processor)** effects, which allow to provide the Amadeus sounds of the SEMPRA with a variety of effects. The special thing about it: Each DSP can generate an effect chain of up to 6 single effects, which then act on the sound!

Depending on the SEMPRA model or the number of Amadeus sound modules present in the instrument, up to 20 DSPs, each with its own effect combination, can thus be active on an SE100 with a maximum configuration of 5 Amadeus systems, for example.

In contrary to the effects of the **D-MiX** preamplifier (reverb, chorus ...) these DSP effects are created directly in the **sound system** and are called up here immediately with the corresponding sounds. The effect settings are stored directly in the sounds.

**Factory sounds that use the Amadeus DSP effects can be recognized by an "fx" in the sound name.** When registering such sounds, you should pay special attention to these sounds, because:

Each AMADEUS sound module has two effect DSPs in the basic version, so two fx sounds can be played per system, each with its own effect constellations, at the same time.

If the SEMPRA is equipped with the extension app "**DSP extension for Amadeus**", the number of effect DSPs per Amadeus module doubles to 4 (!) DSPs.

The number of available DSPs determines how many effect (FX) sounds can sound simultaneously with their own effects each, without duplicating individual DSPs and thus overlapping effect settings.

**When setting your registrations, please make sure that you do not exceed the number of FX sounds that can be played at the same time, as this can lead to overlapping of the effect parameters and thus to noise such as crackling, etc.**

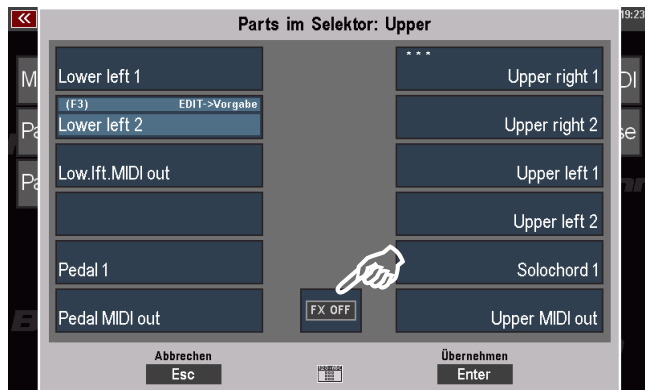
We recommend that you also label your own sounds, which you will now certainly create with the present Sound Editor, accordingly in the sound names, so that later when using these sounds you know that they use an effect DSP.

### Display of the DSP assignment in the Parts

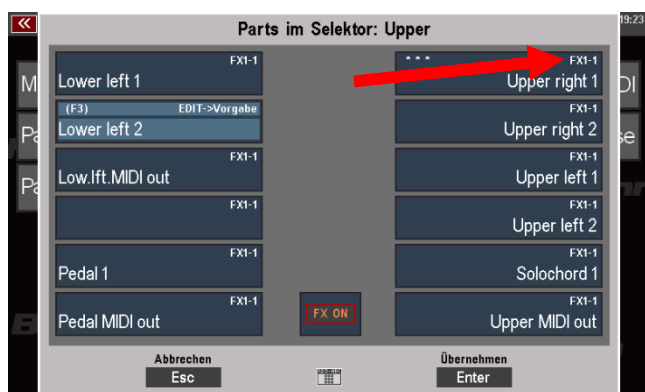
The individual effect DSPs of the Amadeus modules are permanently assigned to certain keyboard parts of the SEMPRA or the accompaniment/sequencer. To keep track of which parts are assigned to which effect DSP on which Amadeus sound module, you can display this assignment in the part fields of the SEMPRA basic screen or in the Part Editor. This way you can avoid double assignments of the DSPs.

First the corresponding display must be activated:

- Call up the **BMC-Menü Parts & MIDI (7) – Parts for selector (3)** auf:
- In the center, tap the button **FX OFF**.



- This is now displayed "red" and shows **FX ON**. The respective FX DSP designations appear in the part fields.
- Confirm with **[Enter]** and return to the basic screen.



- There and also in the Part Editor the respective FX DSPs are now displayed as follows:  
**FX1-1** means e.g. first DSP on the first sound module,  
**FX2-1** means e.g. second DSP on the first sound module,  
**FX2-2** means e.g. second DSP on the second sound module,  
 and so on....

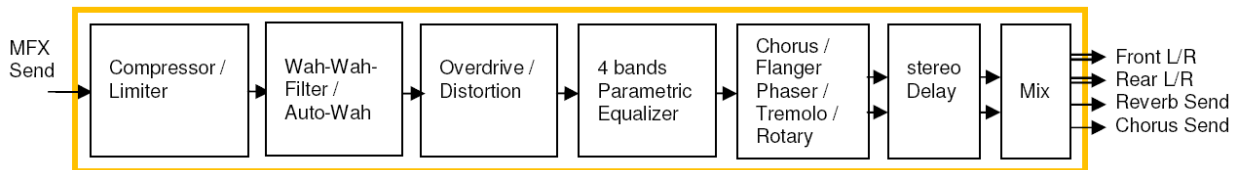


The display remains active until you switch it off again in the above menu.

## Up to 6 effects per DSP simultaneously per DSP

The Amadeus effect DSPs are especially valuable because - in contrast to DSPs on other keyboards and organs - they create not only one but **up to 6 (!!)** effects per DSP at the same time. So you can, for example, let a rotor, an equalizer and an echo work on a sound in parallel, if you wish! And for such a combination only a DSP (and not 3 as with conventional systems) would be needed with Amadeus!

Let's have a look at the structure of the effects in a graph:



The graphic shows the functional diagram of an AMADEUS effect DSP. Each of them creates up to six effects simultaneously:

1. Compressor/Limiter
2. Wah-Wah
3. Overdrive/Distorsion
4. 4-Band Equalizer
5. Chorus/Flanger/Phaser/Tremolo/Rotary
6. Stereo Delay

These 6 effect types can be individually activated and edited on the corresponding display pages of the **Amadeus Sound Editor**.

In addition, you can choose between different audio outputs (Output Mix) for the sound and thus route it either to the standard stereo output of the Amadeus sound generation or alternatively to the D-MiX Rotor or - in case of an existing D-MiX quadrophonic extension - to one of two possible individual outputs.

The effect settings are stored together with the other sound parameters in the sound and are later activated together with the sound when it is called up.

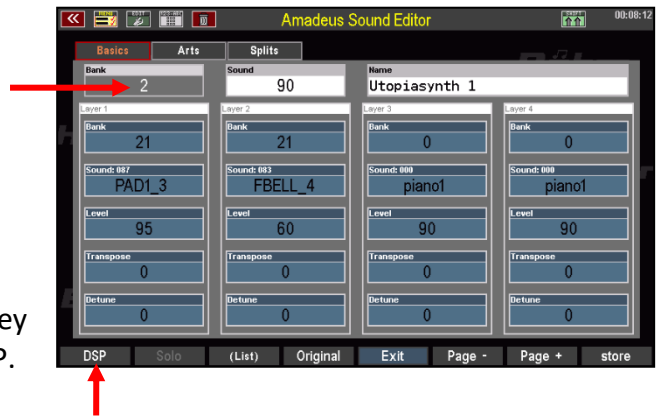
To be able to reuse effect settings once they have been found later, you have the option of saving up to 16 total configurations of the effect parameters in the DSP area of the Amadeus Sound Editor as **DSP presets**.

With these DSP presets, you can therefore quickly revert to once-found effect settings when needed. The presets are only a library of suggestions because all effect parameters are stored in the sounds. You can therefore use the presets - without changing them yourself - as a starting point for settings that are individually adapted to the respective sound.

Calling DSP Settings in the Editor

To access the DSP parameters of the **Amadeus Sound Editor**, proceed as follows:

- Place the cursor on the field "**Bank**"
- At this moment the function of the key **[F1]** below the display changes to DSP. Press **[F1]**.
- The display changes to the first page of the DSP parameters:

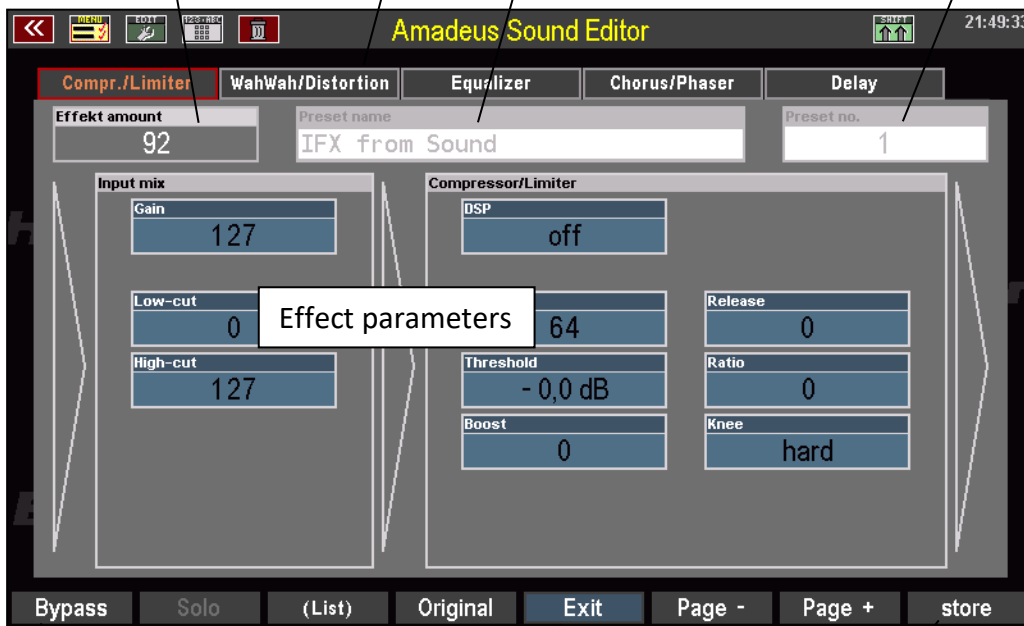


**Effect amount**  
**Bypass:** no effect amount  
**1...127:** intensity of the effect amount  
**Insert:** only the effect signal sounds, but no direct sound part any more

Selection of effect types

DSP preset name

DSP preset number



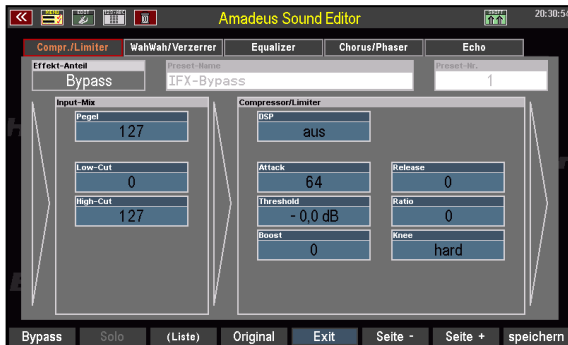
**Bypass**  
 Turns off the DSP effects temporarily, only the direct sound without effect can be heard. So you can quickly compare between the "dry" sound and the sound enriched with effects.

**Exit**  
 Exit the effect editor, return to the Playing/Sound parameters

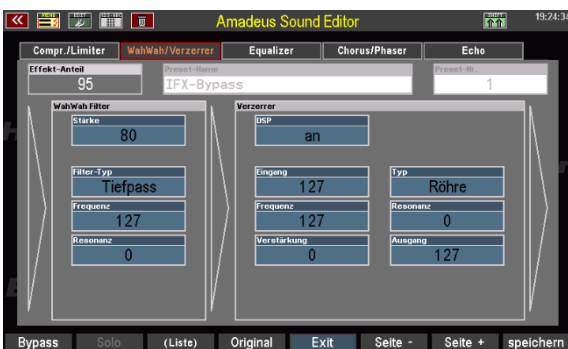
**store**  
 Saving the current effect constellation as a DSP preset

You already know the other **F buttons** functions from the editor pages introduced so far.

The other display pages with the various effect parameters can be reached via the [F6] page - or [F7] page + buttons:



**Input Mix, Compressor/Limiter**



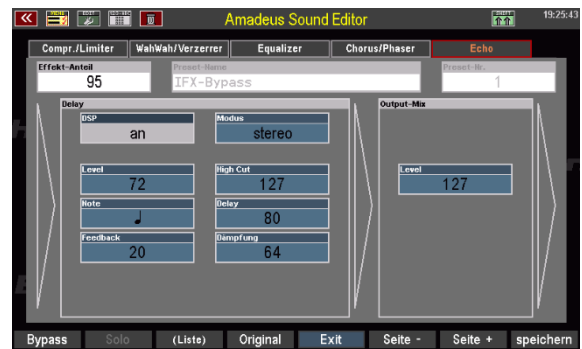
**Wah-Wah filter / Distorsion**



**4-Band Equalizer**



**Chorus/Flanger/Phaser/Rotor**



**Echo/Delay, Output Mix**

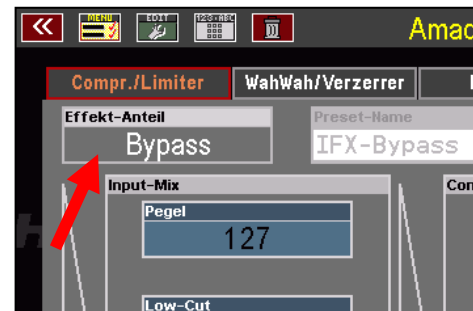
## Effect parameter global

In addition to the parameters for the individual effect types, you will find some global DSP parameters that determine the overall intensity of the effects, their level and the frequency width of the effect part. Let's take a look at these first:

### Effect amount: Send- or Insert effect

Let's have a look at the parameter Effect amount in the upper left corner. It determines whether there is an effect component at all, or whether the DSP works as a send or insert effect. Let's have a look at the settings:

**Bypass:** With this entry no effect part can be heard, the DSP effects are completely faded out or bypassed.



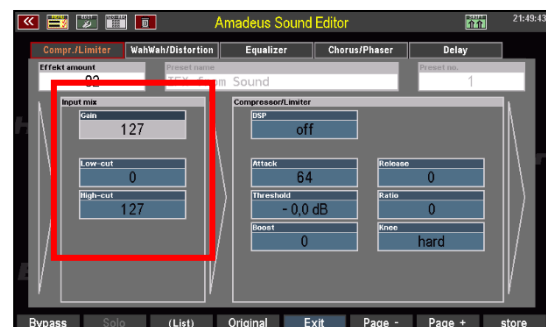
**1...127:** If an effect amount between 1 and 127 is set, the DSP works as a so-called **send effect**. In this case, only a part of the direct signal (corresponding to the set value) is fed (sent) through the DSP and this effect signal is then mixed back into the direct sound component. The sound therefore consists of a mixture of direct and effect signal.

**Insert:** With this setting, the DSP works as a so-called **insert effect**. In this case, the complete sound signal is fed through the DSP. There is no direct sound component in the sound, but only the processed effect signal.

## Input Mix

Here you can set the input level of the effect (Gain) as well as its lower (Lo-Cut) and upper (Hi-Cut) cut-off frequency.

These parameters thus affect the input signal of the entire effect chain.



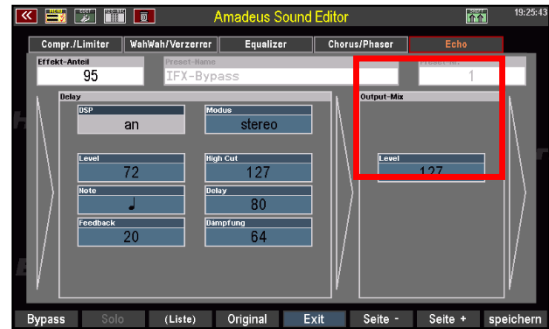
Excessive overloads, e.g. in the area of the distortion effect, can be prevented by a lower gain level.



### Output Mix

At the end of the effect chain, in the Output Mix area on the "Echo" page, the level of the effect sum signal can be adjusted again.

Attention: The effect is different depending on whether you have defined your effects as "Send" or as "Insert" effects:



With send effects, the corresponding direct part of the sound remains, even if the output level is set to "0" here.

With insert effects, nothing can be heard at output level "0", since there is no longer any direct sound component here.

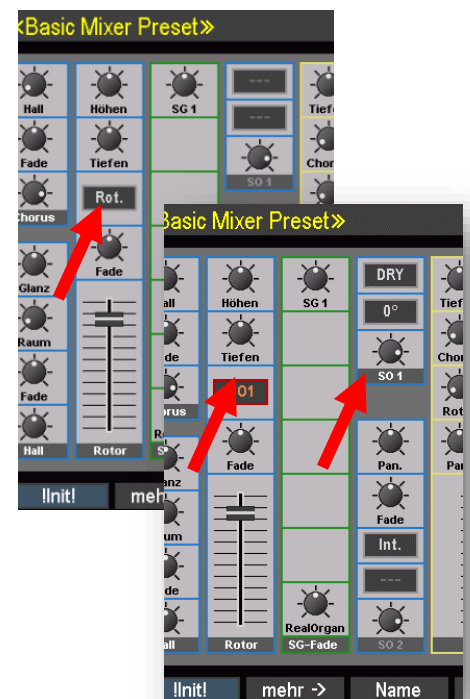
### Output select / single outputs (only on SEMPRA with D-MiX/Amadeus Pro-D)

If the SEMPRA is equipped with the D-MiX extension apps **D-MiX Rotor** and/or the **Quadrophonic**, the sound can be switched to different audio outputs of the sound generation in the **Output** field. The choices are the **stereo output** of the sound generation, the D-MiX Rotor effect path, which can alternatively be used as **SingleOut 1** (monophonic single output 1), and **SingleOut 2** (mono).

**Stereo:** The sound is routed via the normal stereo output of the sound module.

**D-Mix Rotor:** The sound is fed to the D-Mix rotor channel.

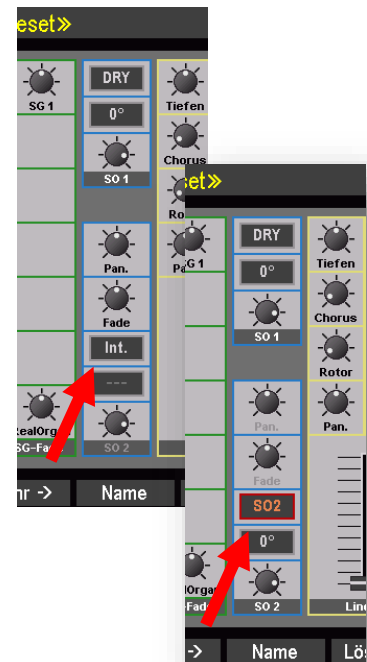
***Note:** In the mixer display, you can specify whether the sound is modulated by the **D-Mix Rotor** effect or whether this effect path is alternatively fed to **Single Out 1** (D-MiX Rotor is switched off in this case).*



**SingleOut 2:** The sound is fed to **SingleOut 2**.

In the mixer you can define whether the SingleOut 2 is really output via a single output, or fed back to the internally stereo output.

This allows you to alternatively give out the sound on the single output 2, as well as on the on the stereo output, by simply changing the **Internal/External** setting in the mixer strip for the **SingleOut 2**.



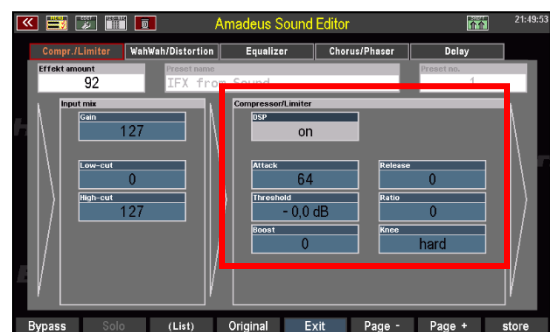
**Parameters of the several effects**

**Compressor/Limiter**

A compressor reduces the differences in dynamics and volume between quiet and loud signals. The dynamic range of the sound is compressed.

**DSP on/off**

Switches the effect on/off



**Attack**

The compressor can respond more directly (lower values) or delayed (higher values).

**Release**

The settling time can also be set shorter (smaller values) or longer (higher values).

**Threshold**

Determines the signal level that must be reached before the compressor is activated.

0 = -42.3 dB, 1 = -42dB, 2= - 41.66dB...64 = -0.33dB...127 = 0dB

**Ratio**

This parameter determines the compression ratio and thus the dynamic reduction from the input to the output signal (for example, 2:1 means a reduction of the signal above the threshold by a factor of 2).

127 = 1:128, 126 = 2:128 (1:64), 125 = 3:128...64 = 64:128 (1:2)...0 = 1:1

### Boost

The output signal of the compressor can be amplified again.

Amplification factor according to value: 127=x8 ... 64=x4 ... 32=x2 ... 0=x1

### Knee

The "**hard**" setting allows the compressor to be used directly at the threshold point, i.e. exactly when the use level is reached. "**Soft**" makes the use a bit softer, the effect of the compressor gradually becomes stronger in the immediate vicinity of the threshold level.

### Wah Wah Filter

By changing the filter, you can change the timbre of the sound steplessly, the well-known Wah-Wah effects are created.

The parameters for this effect function:

#### Strength

Determines the intensity of the effect

#### Filter type / Frequency

These two parameters have a direct relationship: the wah-wah can work as a lowpass filter (TP, the frequency parameter determines the upper cutoff frequency) or a bandpass filter (BP, the frequency parameter determines the input frequency).

Range of values: 0 = 0Hz...127 = 8kHz

#### Resonance

Raises the frequency range around the operating frequency. Extreme settings also produce extreme tonal changes.

Range of values: 0 = no Resonance...127 = maximum Resonance

**Tipp:** For Wah-Wah the setting "Insert" for the global parameter "Effect amount" is particularly interesting, because in this case only the modulated sound is audible and thus the strongest effect is achieved.

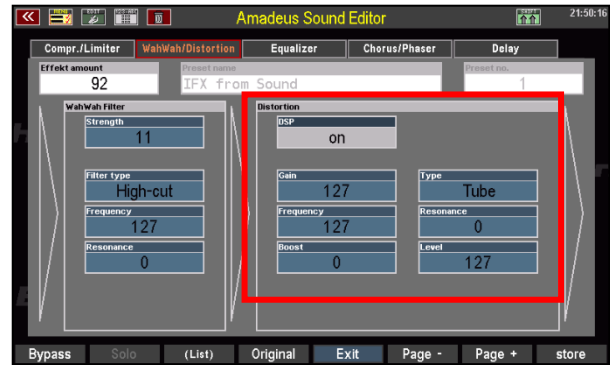


## Distorsion

This effect produces the typical overloads and thus sound distortions of earlier (tube) amplifiers.

Especially for rock guitar and organ sounds these effects have become style-forming.

Depending on the setting and the selected effect type (tube or distortion, see below), you can create a slightly overdriven "vintage" combo amplifier as well as "sawing and screeching" hard rock guitars.



The parameters in detail:

### DSP

Switches the effect on/off.

### Gain

The input level at which the signal is fed to the distortion unit.

### Typ

The effect can produce a **Tube** overdrive or a pronounced distortion effect (**Digital**).

### Frequency

The effect includes a low-pass filter (high frequencies are suppressed). Here you can set the upper cutoff frequency of the filter. High values make the effect more brilliant, lower values duller and thus softer.

0 = 0Hz...127 = 8kHz

### Resonance

Determines the resonance frequency of the filter for extreme distortion. Attention: too high values can cause extreme (and therefore loud) sound changes!

0 = no Resonance....127 = maximum Resonance

### Boost

The gain factor and thus the degree of overdrive is set here. Please dose carefully!

Range of values: 0 = 0 dB...127 = +62dB

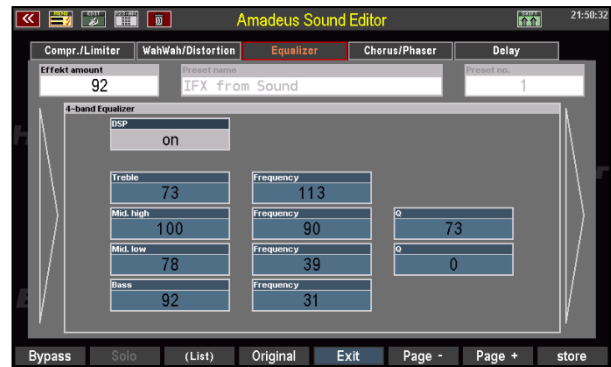
### Level

The output level of the effect can be adjusted here. For more extreme effects, set the gain factor higher and the output level lower so that the overall sound is not too loud.

Range of values: 0 = aus, 1 = -42dB...127 = 0dB

## 4-band Equalizer

An equalizer allows the accentuation or attenuation of certain frequency ranges in the sound and thus a fine-tuning of the sound. For example, you can raise or lower the bass, midrange or treble - similar to the tone controls on a mixing console.



### DSP

Turns on/off the equalizer.

The equalizer of the Amadeus DSP works with four adjustable frequency bands:

Band range:	Frequency adjustable from/to
<b>Treble</b>	0 = 500Hz...127= 2 KHz
<b>Mid. high</b>	0 = 40Hz...127= 10 KHz
<b>Mid. low</b>	0 = 40Hz...127= 2,5KHz
<b>Bass</b>	0 = 40Hz...127= 1.5KHz

The set frequency range can be changed for each band as follows:

0 = -12dB (lowering).....64 = 0dB (neutral position).....127 = +12dB (raising)

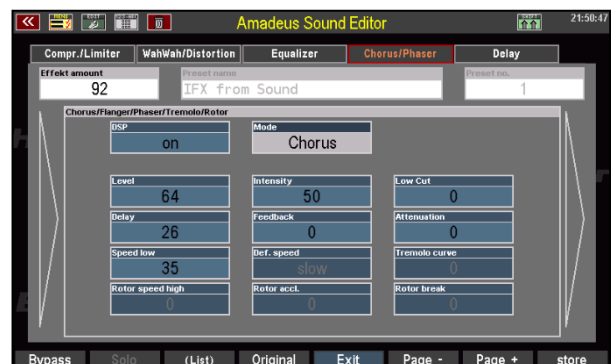
### Q

The parameter can be set separately for the two Mid bands. It determines the slope steepness and thus the accuracy of the cut-off of the respective frequency band.

## Chorus/Flanger/Phaser/Tremolo/Rotor

This further interesting effect section creates the typical beat effects.

This allows you to create e.g. chorus electric pianos or guitars as well as rotor organ sounds that sound directly with these effects and do not have to be routed to the chorus/rotor effect of the Crystal Mixer of your organ by the part settings, for example.



On the other hand, the Amadeus effects can also be combined with the Crystal Mixer effects by superimposing the corresponding parts on the CM effect DSPs. This makes it possible, for example, to create a roaring organ sound with several simultaneous rotor effects.

**Tip:** By the way, you can even switch the rotor speed of the AMADEUS rotor directly by **F button** or foot switch while playing! In the factory settings you will find the function "FX ROTOR" on the F-button [**F7**].



Let's have a look at the parameters of this AMADEUS effect section as well:

**DSP**

Switches on/off the effect

**Mode**

Defines the effect type. Adjustable are:

- Chorus**            slow beat effect
- Flanger**           time-delayed signal components are added to the original sound. This results in overlapping periodic pitch fluctuations.
- Tremolo**            periodic amplitude fluctuation, with pendulum effect between the right and left stereo channels
- Phaser**             similar to the Flanger, but generated by periodically changed filter processes
- Rotor**                the typical effect of rotating loudspeakers (Leslie<sup>®</sup> effect)

Depending on the effect type selected, the following parameters may or may not be active. *Note: Active parameters are displayed in light blue with white lettering, inactive parameters in dark blue with grey lettering.*



**Level**

effect volume

**Intensity**

modulation depth

**Low Cut**

For Chorus/Flanger: Cut-off frequency of the high-pass filter for effect part

**Delay**

For Chorus/Flanger: Delay time for the effect part

**Feedback**

For Chorus/Flanger: Intensity of feedback (feedback of the effect part into the modulation generator), influences the effect intensity

**Attenuation**

For chorus/flanger: attenuation of the treble on the feedback component

**Speed Low**

Speed of the modulation (Chorus, Flanger, Phaser, Tremolo, Rotor)

0 = ~0,023 Hz...64 = ~0,89Hz...127 = ~5,8 Hz (~1Hz...~20Hz for type Tremolo)

For effect type "Rotor", the speed set here determines the slow rotor speed

**Rot. Speed High**

Defines the fast rotor speed for effect type "Rotor"

**Def. Speed**

Determines whether the fast or slow rotor speed is set when the sound is recalled. The speed can be changed directly while playing by pressing the [F]- or footswitch.

**Tremolo Curve**

Vibration curve shape of the tremolo effect, infinitely adjustable from:

0 = Triangle to 127 = Square

**Rotor Accl.**

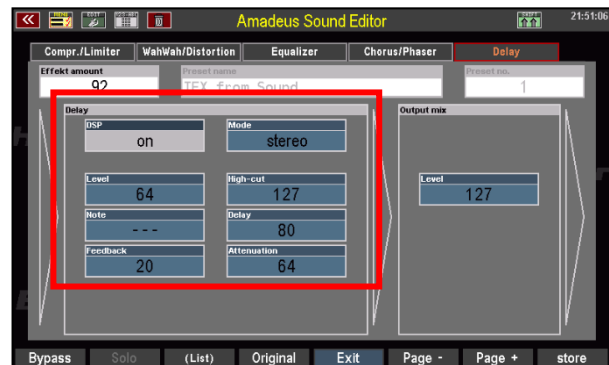
Acceleration time when switching to fast rotor speed

**Rotor Break**

Delay time when switching to slow rotor speed

**Delay (Echo)**

On the last page of the effect parameters you will find the delay or echo effect. For example, an echo can set a sonorous accent on a guitar sound or on different synthesizer sounds. The numerous parameters on this page allow you to adjust the echo effect exactly to your needs. Even tempo-synchronous echoes to the current style tempo are possible.



Let us look at the parameters again in detail:

**DSP**

Switches on/off the effect

**Modus**

The echo effect can sound in **mono** or **stereo** (echo oscillates between the channels). The desired mode can be set here.

**Level**

Setting the effect volume

**High Cut**

The effect portion can be limited by a low pass filter in the treble. The upper cutoff frequency of the filter, from which the treble is controlled, can be set here.

**Note / Delay**

These two parameters determine the echo frequency, i.e. the tempo at which the individual echoes sound one after the other. Under Delay, you can set fixed delay times between **42** (input value **1**) and **640** milliseconds (input value **127**). If "**0**" is entered, no echo will sound. If a value is entered for Note, this setting has priority. Depending on the current style tempo, the echoes then sound at the speed of the set note values, i.e. on every quarter, eighth, sixteenth or thirty-second note. Triplet values (e.g. 1/4 T) can also be set.

**Feedback**

The feedback feeds the effect signal back to the effect input. The number of individual echoes is multiplied up to the continuous echo (input 127).

**Attenuation**

Here you can attenuate the treble for the echoes generated by the feedback. The treble decrease is gradual over the individual echoes in the set degree.

**Create and use DSP presets**

All effect DSP settings are saved directly to the sound when you save it.

You can also save effect settings once found in a separate DSP preset library and return to them later to use the same setting for other sounds. The total settings for all 6 effect sections are stored.

There are 16 memory locations available for your own DSP presets (**1...16**).

The DSP preset **000 IFX from Sound** cannot be saved! If this preset is selected, the effect constellation stored in the sound currently called up in the editor will sound. So you can switch and compare between the setting in the sound and the one from a selected effect preset at any time. The preset **000 IFX from Sound** is also always selected by default when you restart the Sound Editor.

**Not stored in the DSP presets is the parameter Effect amount!** This would also make no sense, since the setting here will/must always be sound-dependent in order to achieve an optimal sound result.

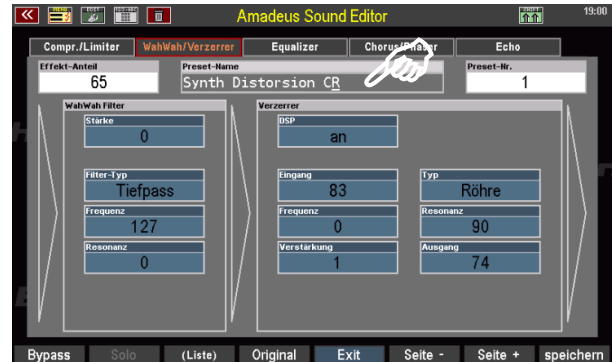
You can also change the DSP presets at any time without affecting already stored sounds. It is simply a collection of your effect configurations for later quick access.



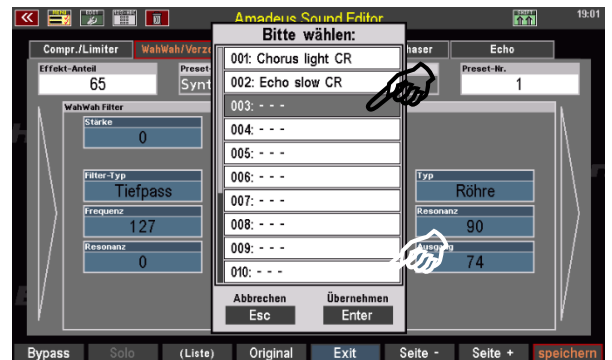
### Store DSP-preset

To save a DSP preset, proceed as follows:

- Make the effect settings on the various pages of the DSP Editor as you want to save them.
- Then tap in the **Preset Name** field at the top of the display and enter a name for your new DSP preset.



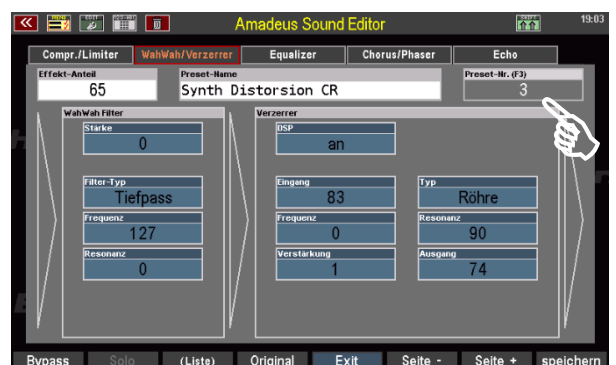
- Now press the F8 button **store** below the display or the button **[Store]** on the control panel. The store dialog with a list of the available preset memory locations is displayed.
- Use the cursor to select the desired position in the list to which you want to save. If necessary, already occupied positions are displayed.



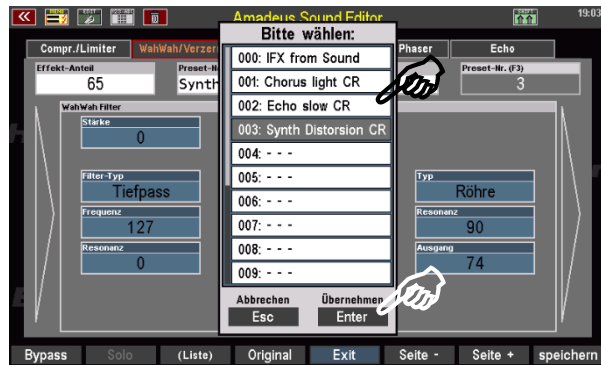
- Confirm your selection with **[Enter]**. The DSP preset is now saved and the selection list is hidden again.

### DSP-Presets aufrufen

- To access your DSP presets, tap the **Preset No.** field at the top right of the display.
- You can now select the desired DSP preset with the **data wheel**.



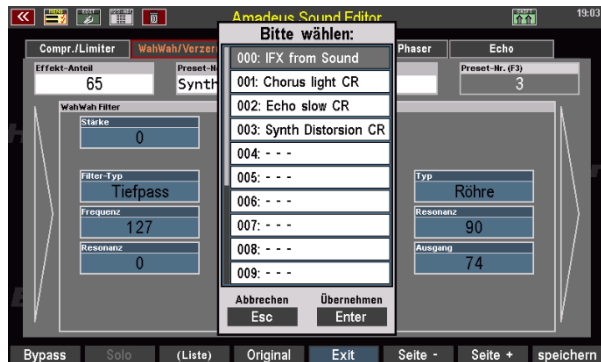
- Tapping the **Preset No.** field twice opens a list view of the DSP presets. Here you can select the desired DSP preset with the cursor keys and confirm the selection with **[Enter]** to select the preset.



When selected, the effect settings saved in the preset are applied to the sound currently selected in the editor.

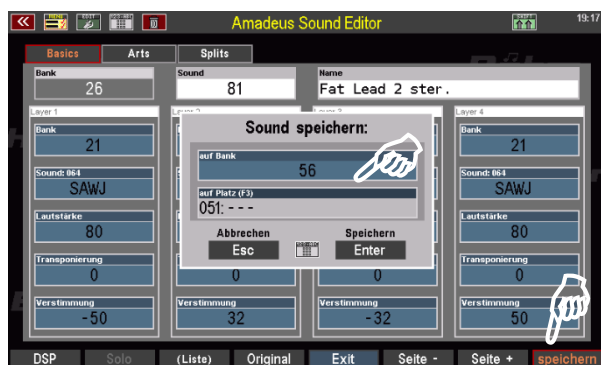
You can now adjust the **effect intensity** in the upper left corner as desired and adjust all other parameters to the current sound, if necessary.

Via **Preset No.** you can also select the (not storable) Preset No. **000 IFX from Sound**. When you call up this preset, the effect constellation currently stored in the sound will be heard.



When you are satisfied with the effect sound, exit the DSP section of the editor with the F button **F5 Exit** (the display returns to the Sound Editor home page).

Save your sound there again. When you do this, the current effect settings will be saved with the sound. Your DSP presets are not affected by this.



### 7. Save/load sound data to/from USB

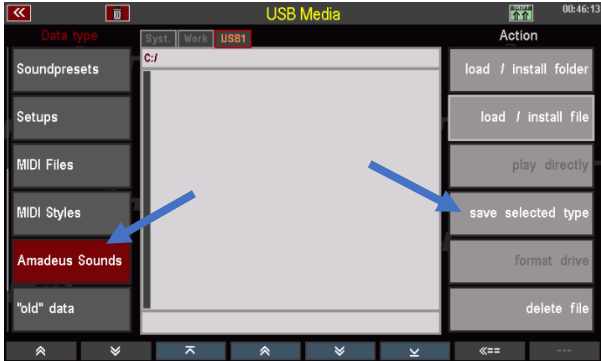

Now we want to save our changed sounds on a USB stick, e.g. to load them from there into another AMADEUS system in the instrument or into another SEMPRA.

**ATTENTION:** The sound data are not stored in the memory of the organ CPU, but in the memory of the Amadeus sound module(s). Sound data is therefore not included in the backup when backing up a complete backup of the SEMPRA to a USB stick. The backups only contain the data of the actual organ, i.e. SONG presets, user styles, albums, setups and sound presets. Therefore sound data must always be saved separately as a separate data type.

We assume in the following that you are familiar with the basic handling of the USB functions in the operating manual for your SEMPRA.

#### Saving sound data to USB

Saving sound data is the same as with the other data types from the USB menu of your instrument:

- Insert a USB stick into the SEMPRA where you want to save the sound data. The LED in the [USB] button will light.
- If necessary, exit the sound editor by pressing [ESC].
- Press the [USB] button to enter the USB menu and select the **Amadeus Sounds** file type from the menu on the left.
 
- Now tap **save selected type** on the right side.
- A box will appear in which you can specify which Amadeus sound module of your SEMPRA you want to save the sound data from. Our example on the right shows the display for a SEMPRA with two Amadeus systems (SG1, SG2, SG = sound group).
 

*Note:* If you specified when starting the Sound Editor that you want to edit the sounds for all modules, then all Amadeus modules in your SEMPRA have

the same status, i.e. contain the same user sounds. In this case, you only need to make a backup from one of the sound modules.

If, on the other hand, you have edited different sounds on different modules, we recommend that you make your own backup. Then perform the following saving procedure again for the other Amadeus module(s).

- In our example, we select the module SG 1a ("a" stands for the 1st MIDI port of the module, which is used to save or load sound data).

Note: If you want to cancel the saving process at this point, select "no sound group".



- Confirm with [Enter].

- In the box that now appears, you can specify whether you want to display all banks (i.e. all user sound data that are currently contained on the module).

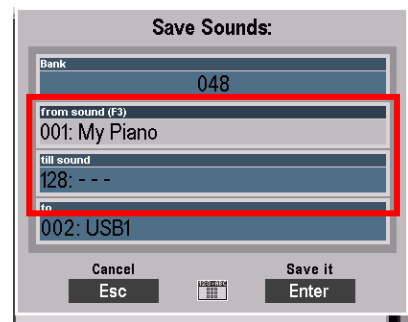


... or just want to save a specific soundbank number (selected with the data wheel) as a file.

Here in the example we have chosen the bank 048.



Wenn Sie eine einzelne Bank zum Speichern auswählen, können Sie in den Feldern „vom Sound“ bzw. „bis Sound“ außerdem einen Bereich von Sounds aus der Bank (oder – bei Eingabe von 001-127 – auch die gesamte Bank) zum Speichern auswählen.



- When you have made your selection, confirm with [Enter].

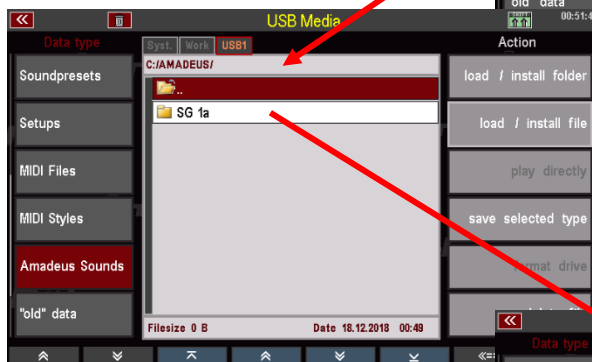
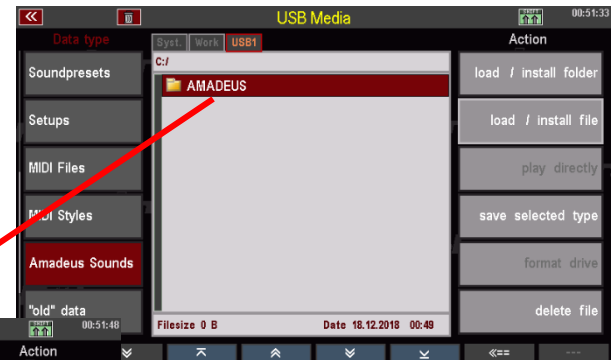
- The sound data is stored on the USB stick.

This completes the storage procedure.



### Load sound data from USB

When saving sound data, the system creates a folder "Amadeus" on the USB stick.



In this folder, the system creates a separate subfolder for each sound module from which data is stored, e.g. "SG 1a" for the 1st Amadeus module of the SEMBRA.

This folder in turn contains subfolders for all sound banks from which data was saved.



Finally, these folders contain the actual sound files. The name of the file tells you which sound locations (from-to) have been saved.

The sound data is always stored by sound module and then separated by sound banks. This way you keep track of the data and you can always select exactly which sounds you want to load when loading them later.



When loading sound data, you also have various options. Basically:

- Insert the USB stick containing the sound data to be loaded into the SEMPRA and use the [USB] button to open the USB menu.

- Select file type **Amadeus-Sounds** on the left.

- In the middle you can now see the open folder AMADEUS, which contains one or more subfolders for the sound banks stored in it.

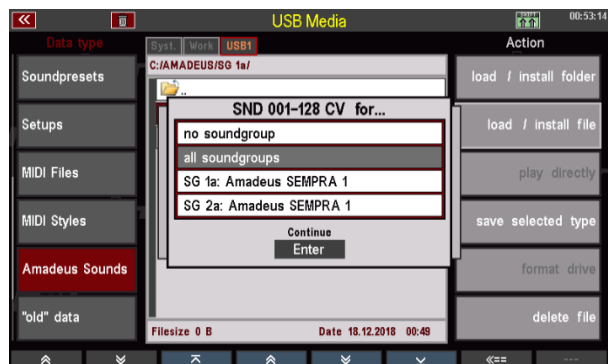
- To load a sound bank, place the cursor with the data wheel (do not tap on the folder, as this would open it!) on the desired bank folder. Then tap on **Load/install folder** on the right side.



- Es folgt eine Sicherheitsabfrage. Bestätigen Sie mit [Enter].



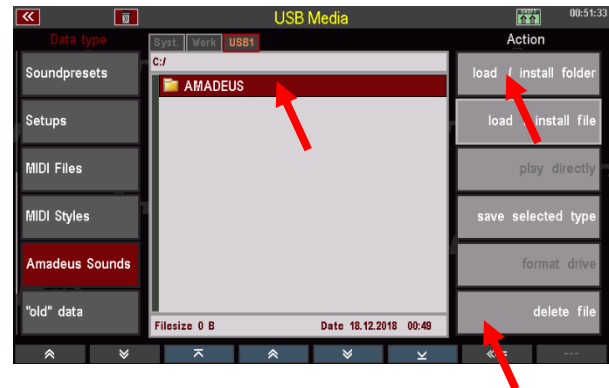
- Now you will be asked which sound system you want to load the sound data into. Select **"all sound modules"** to load the data into all existing Amadeus modules at the same time, or select a specific sound system (with "no sound system" you can also cancel the process here).



- Confirm your selection with [Enter]. The sound data will now be loaded.

As an alternative to loading individual sound banks, you can also load the complete AMADEUS folder - and thus all contained souddata - in one step:

- Switch with the button [F7] <<== into the topmost directory of the Stick, so that you see the folder AMADEUS.
- Now tap on **Load/install folder** on the right side.
- The following is a confirmation prompt: Confirm with [Enter]. The complete AMADEUS folder and all contained sound data will be loaded now.



## 8. Adding sound names to the sound presets

If we edit an existing Amadeus sound in the Sound Editor and save it to its original location, this sound can be selected later as before when setting sounds on the SEMBRA. It will then sound in the newly edited version.

So far, so good...

However, if - and this will usually when working with the Sound Editor - you save your newly created sounds to new, free sound banks and numbers, you will not find these sounds under the sound names you assigned when selecting sounds for your registrations.

That's why: We register the so-called **sound presets** in the parts. These manage the sounds in the form of a mapping.

The sound preset contains information about the sound and its origin, i.e. the bank and program number within the sound generator addressed. However, the sound presets themselves are ultimately independent of the actual sounds behind them and therefore have their own names.



The SEMBRA sound presets are organized in 128 banks of 128 individual sounds each. This corresponds exactly to the sound bank structure of the Amadeus sound modules. Also here there are exactly 128 x 128 sound places.

For the factory-set Amadeus sounds, the corresponding sound preset banks are of course already preassigned, so that these sounds are immediately selectable.

However, if you save your own Amadeus sounds to previously free sound numbers in the Amadeus, the corresponding sound presets are initially "empty", and the name "no mapped sound" is then displayed everywhere.

Of course, your sounds are selectable and thus playable, since even the still unnamed sound presets already select the correct sound places on the Amadeus.



To ensure that the sound presets that play the sounds you have created get the right sound names and you don't have to laboriously name each individual sound preset manually again, there is the **"Get sound names"** function in the **Sound Preset Editor**. With this function, the sound names can be transferred from the AMADEUS system to the sound presets bank by bank, so that they are displayed correctly during registration.

In the following example, we assume that the **Amadeus Sound Editor** has stored some new sounds on bank 48 of the AMADEUS system (in the example on sound numbers 1-3). For these sounds, the corresponding sound presets should now be named with the sound names from the OPERA system.

First we call up the Soundpreset Editor  
**[Menu] -> Sounds & Routing [3] -> Sound-Preset-Editor [1]**

- In the Sound Preset Editor, use the **[F3] Bank/List** button to switch to the Sound Preset Bank 048:





Now we find the name "no mapped sound" on all soundpreset-places of this bank, because no sound names have been entered, yet.

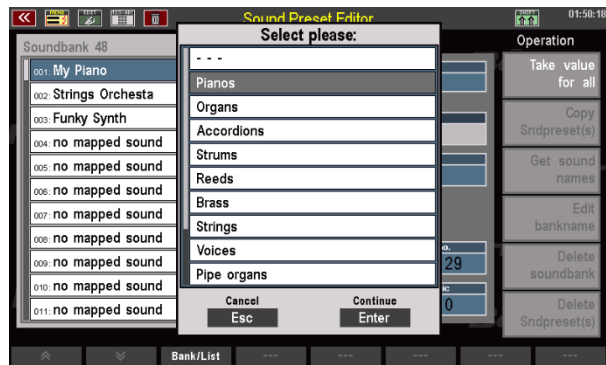
Nevertheless, our self-created sounds are already playable when selecting the corresponding sound presets (in our example the numbers 001 - 003), as the "blank" sound presets already refer to the corresponding sound places of the sound system.

- The "Get sound names" function can be found in the column on the right of the display. Tap on it to transfer the sound names of the newly created sounds from the Amadeus sound module to the Sound Preset Bank.
- The function is executed and the corresponding sound presets (in our example the numbers 001-003) take over the sound names that have just been transmitted.



The sound presets now have the correct sound names. But we should also sort them into the appropriate categories and subgroups so that we can find them in the right places in the sound lists later!

- Our first sound is a concert piano. It is therefore to be taken over into the piano group. Tap on the **"Category"** field. Use the data wheel to select the various sound groups. Alternatively, you can tap on **"Category"** again to activate the list selection.



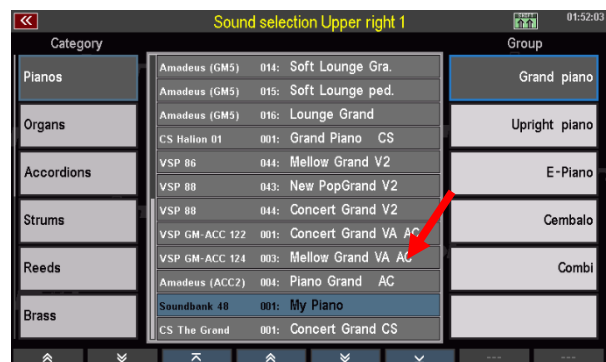
- Select the group **"Pianos"** and confirm with **[Enter]**.
- Now tap on the **"Group"** field and select the desired subgroup accordingly. For our Concert Piano, we have chosen the group **"Grand Piano"**.
- Press **[Store]** to save the sound preset.



Now you can edit additional sound presets accordingly and sort them into the appropriate sound categories or subgroups. Don't forget to save each sound preset after editing by pressing the [Store] button so that the changes are applied.

If you have assigned all sound presets accordingly, you can find and select them now in the sound lists when you select the sounds for your registrations on the SEMPRA.

Don't forget to back up your new Sound Presets to a USB stick if necessary. The Sound Presets are available as a separate file type in the USB menu. Sound presets are also included in the complete backup files (complete data backup), as they are stored in the organ memory itself.



For more information on backing up sound presets, refer to the USB chapter of the SEMPRA main manual.

You have now learned all the sound parameters of the **Amadeus Sound Editor**. As so often, the same applies here:

Try it out - it's all about studying!

We therefore recommend an intensive study of the program. The better you get to know the various parameters and their effects, the more targeted you will be able to use the many functions.

Perhaps you would like to send us your own sound creations?  
We are looking forward to it!

We wish you a lot of fun with the sound creation!

Your

BÖHM Team

# Appendix: Overview Amadeus Element-Sounds

## Amadeus Pro-D 1 - Element-Sounds

GM-0	GM-3..7	Sakral	BBO	GM-12	Piano, E-Piano, chrom.Perc.	Guitar, E-Guitar, Bases, Strums	Strings, Orchestra, Choir
0	0	0	0	0	16	17	18
0	1	1	1	1	16	17	18
0	2	2	2	2	16	17	18
0	3	3	3	3	16	17	18
0	4	4	4	4	16	17	18
0	5	5	5	5	16	17	18
0	6	6	6	6	16	17	18
0	7	7	7	7	16	17	18
0	8	8	8	8	16	17	18
0	9	9	9	9	16	17	18
0	10	10	10	10	16	17	18
0	11	11	11	11	16	17	18
0	12	12	12	12	16	17	18
0	13	13	13	13	16	17	18
0	14	14	14	14	16	17	18
0	15	15	15	15	16	17	18
0	16	16	16	16	16	17	18
0	17	17	17	17	16	17	18
0	18	18	18	18	16	17	18
0	19	19	19	19	16	17	18
0	20	20	20	20	16	17	18
0	21	21	21	21	16	17	18
0	22	22	22	22	16	17	18
0	23	23	23	23	16	17	18
0	24	24	24	24	16	17	18
0	25	25	25	25	16	17	18
0	26	26	26	26	16	17	18
0	27	27	27	27	16	17	18
0	28	28	28	28	16	17	18
0	29	29	29	29	16	17	18
0	30	30	30	30	16	17	18
0	31	31	31	31	16	17	18
0	32	32	32	32	16	17	18
0	33	33	33	33	16	17	18
0	34	34	34	34	16	17	18
0	35	35	35	35	16	17	18
0	36	36	36	36	16	17	18
0	37	37	37	37	16	17	18
0	38	38	38	38	16	17	18
0	39	39	39	39	16	17	18
0	40	40	40	40	16	17	18
0	41	41	41	41	16	17	18
0	42	42	42	42	16	17	18
0	43	43	43	43	16	17	18
0	44	44	44	44	16	17	18
0	45	45	45	45	16	17	18
0	46	46	46	46	16	17	18
0	47	47	47	47	16	17	18
0	48	48	48	48	16	17	18
0	49	49	49	49	16	17	18
0	50	50	50	50	16	17	18
0	51	51	51	51	16	17	18
0	52	52	52	52	16	17	18
0	53	53	53	53	16	17	18
0	54	54	54	54	16	17	18
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0	56	56	56	56	16	17	18
0	57	57	57	57	16	17	18
0	58	58	58	58	16	17	18
0	59	59	59	59	16	17	18
0	60	60	60	60	16	17	18
0	61	61	61	61	16	17	18
0	62	62	62	62	16	17	18
0	63	63	63	63	16	17	18
0	64	64	64	64	16	17	18
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0	67	67	67	67	16	17	18
0	68	68	68	68	16	17	18
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0	70	70	70	70	16	17	18
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0	75	75	75	75	16	17	18
0	76	76	76	76	16	17	18
0	77	77	77	77	16	17	18
0	78	78	78	78	16	17	18
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0	82	82	82	82	16	17	18
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0	85	85	85	85	16	17	18
0	86	86	86	86	16	17	18
0	87	87	87	87	16	17	18
0	88	88	88	88	16	17	18
0	89	89	89	89	16	17	18
0	90	90	90	90	16	17	18
0	91	91	91	91	16	17	18
0	92	92	92	92	16	17	18
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0	95	95	95	95	16	17	18
0	96	96	96	96	16	17	18
0	97	97	97	97	16	17	18
0	98	98	98	98	16	17	18
0	99	99	99	99	16	17	18
0	100	100	100	100	16	17	18
0	101	101	101	101	16	17	18
0	102	102	102	102	16	17	18
0	103	103	103	103	16	17	18
0	104	104	104	104	16	17	18
0	105	105	105	105	16	17	18
0	106	106	106	106	16	17	18
0	107	107	107	107	16	17	18
0	108	108	108	108	16	17	18
0	109	109	109	109	16	17	18
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0	112	112	112	112	16	17	18
0	113	113	113	113	16	17	18
0	114	114	114	114	16	17	18
0	115	115	115	115	16	17	18
0	116	116	116	116	16	17	18
0	117	117	117	117	16	17	18
0	118	118	118	118	16	17	18
0	119	119	119	119	16	17	18
0	120	120	120	120	16	17	18
0	121	121	121	121	16	17	18
0	122	122	122	122	16	17	18
0	123	123	123	123	16	17	18
0	124	124	124	124	16	17	18
0	125	125	125	125	16	17	18
0	126	126	126	126	16	17	18
0	127	127	127	127	16	17	18

Nur Element-Sounds in GROSSBUCHSTABEN sind voll editierbar!

\* in Acc.-Fascin.    \* neu in Amad. Pro-D

Reeds, Accordion	Brass, Flutes	Organ, Synth	Effects	Reeds	Movie-Sounds	Vocals
19 0 KLAR1_1*	20 0 FLGH2_4	21 0 SI_016_8	22 0 APPLAUS2	23 0 KLAR1_1	24 0 ---	25 0 ---
19 1 KLRS_T3*	21 1 CORNET_4	21 1 SI_05138	22 1 PUBLIKUM	23 1 KLRS_T3	24 1 ---	25 1 ---
19 2 CLAR_6*	20 2 CHODO_4	21 2 SI_08_8	22 2 LETTER	23 2 CLAR_6	24 2 ---	25 2 ---
19 3 ---	20 3 TRUMP_1	21 3 SI_04_8	22 3 BING_SM	23 3 ---	24 3 ---	25 3 ---
19 4 ---	20 4 SFTTRP_3	21 4 SI_02238	22 4 CAR_RET1	23 4 ---	24 4 ---	25 4 ---
19 5 ---	20 5 JZTRP_3	21 5 SI_02_8	22 5 CAR_RET2	23 5 ---	24 5 ---	25 5 ---
19 6 ---	20 6 TRP2_4	21 6 SI_01358	22 6 CYMBALS	23 6 ---	24 6 ---	25 6 ---
19 7 ---	20 7 TRP_5	21 7 SI_01138	22 7 SKWEEK1	23 7 ---	24 7 ---	25 7 ---
19 8 TSAX1_1*	20 8 BLARE_6	21 8 SI_01_8	22 8 CHRCHBEL	23 8 TSAX1_1	24 8 ---	25 8 ---
19 9 SWTSX_6*	20 9 BLR_6MTD	21 9 SINECB01	22 9 CHRCH44	23 9 SWTSX_6	24 9 ---	25 9 ---
19 10 SFTASX_6*	20 10 ---	21 10 SINECB03	22 10 GELAEUT	23 10 SFTASX_6	24 10 ---	25 10 ---
19 11 ALTSX_6*	20 11 ---	21 11 SINECB04	22 11 KLGLOCKE	23 11 ALTSX_6	24 11 ---	25 11 ---
19 12 ASAX1_1*	20 12 MTRP1_1	21 12 SINECB05	22 12 KLNGRPT	23 12 ASAX1_1	24 12 ---	25 12 ---
19 13 ROCKSX_6*	20 13 MTRP2_1	21 13 SINECB06	22 13 SAYIT	23 13 ROCKSX_6	24 13 ---	25 13 ---
19 14 ---	20 14 ---	21 14 SINECB07	22 14 PROSTI	23 14 ---	24 14 ---	25 14 ---
19 15 ---	20 15 ---	21 15 SINECB08	22 15 KORK78	23 15 ---	24 15 ---	25 15 ---
19 16 ---	20 16 TRB2P_3	21 16 SINECB09	22 16 CIRCUS_2	23 16 ---	24 16 ---	25 16 ---
19 17 ---	20 17 TRB2MF_3	21 17 SINECB10	22 17 PPIFF2	23 17 ---	24 17 ---	25 17 ---
19 18 ---	20 18 TRB2F_3	21 18 SINECB11	22 18 PPIFF3	23 18 ---	24 18 ---	25 18 ---
19 19 ---	20 19 TRB3P_4	21 19 ---	22 19 HEY_22	23 19 ---	24 19 ---	25 19 ---
19 20 ---	20 20 TRB3F_4	21 20 ---	22 20 LETSGO	23 20 ---	24 20 ---	25 20 ---
19 21 ---	20 21 TRB_6	21 21 ---	22 21 LATSCR22	23 21 ---	24 21 ---	25 21 ---
19 22 ---	20 22 ---	21 22 ---	22 22 YEY_22	23 22 ---	24 22 ---	25 22 ---
19 23 ---	20 23 WAH_TB_3	21 23 ---	22 23 SILVIA5	23 23 ---	24 23 DrAfr1	25 23 ---
19 24 OBOE1_1*	20 24 TUB_6	21 24 16584_4	22 24 REGEN	23 24 OBOE1_1	24 24 DrAfr2	25 24 ---
19 25 ENGHRL_3*	20 25 TUBA5_4	21 25 JZPCL_4	22 25 DONNER	23 25 ENGHRL_3	24 25 MovPercS	25 25 ---
19 26 BASON_3*	20 26 TUBA4_4	21 26 POP3L_4	22 26 STURM	23 26 BASON_3	24 26 ---	25 26 ---
19 27 ---	20 27 TUBA3_4	21 27 F1FA_3	22 27 BROKGLAS	23 27 ---	24 27 MyPlace	25 27 ---
19 28 ---	20 28 TUBA2_4	21 28 J1SL_3	22 28 CARHORN1	23 28 ---	24 28 EpicChrs	25 28 ---
19 29 ---	20 29 TUBA1_4	21 29 J1FA_3	22 29 BIKERING	23 29 ---	24 29 MovieCym	25 29 ---
19 30 ---	20 30 ---	21 30 RSLWL_4	22 30 HUND2	23 30 ---	24 30 MovCymRi	25 30 ---
19 31 ---	20 31 R1RST1_4	21 31 R1RST1_4	22 31 GUNSHOT	23 31 ---	24 31 MovGong	25 31 ---
19 32 BAGP3_1*	20 32 FANF1_1	21 32 O14SL_4	22 32 JODLER1	23 32 BAGP3_1	24 32 MoogSubB	25 32 ---
19 33 BAGP4_1*	20 33 BRAS1_1	21 33 O14FS_4	22 33 JIAHH	23 33 BAGP4_1	24 33 ---	25 33 ---
19 34 ---	20 34 BRASS1_6	21 34 O8_SL_4	22 34 WOUHU	23 34 ---	24 34 MovCymS	25 34 ---
19 35 ---	20 35 TPSC2_4	21 35 O8_FS_4	22 35 SILVIA1	23 35 ---	24 35 MovCymRS	25 35 ---
19 36 ---	20 36 FANF1s_1	21 36 ---	22 36 SILVIA3	23 36 ---	24 36 MovGongS	25 36 ---
19 37 ---	20 37 BRAS1s_1	21 37 ---	22 37 SILVIA2	23 37 ---	24 37 MovDrmsS	25 37 ---
19 38 ---	20 38 BRAS1s_6	21 38 ---	22 38 BABY	23 38 ---	24 38 MovPerc	25 38 ---
19 39 ---	20 39 TPSC2s_4	21 39 PATCH_4	22 39 SILVIA4	23 39 ---	24 39 MovDrms	25 39 ---
19 40 ---	20 40 HRNS1_3	21 40 ---	22 40 FURY	23 40 ---	24 40 MovSnare	25 40 ---
19 41 ---	20 41 HRNS2_4	21 41 ---	22 41 KUCK22	23 41 ---	24 41 MovSnrRi	25 41 ---
19 42 ---	20 42 HORNS_6	21 42 ---	22 42 CUCKEL	23 42 ---	24 42 MovDrSSo	25 42 ---
19 43 ---	20 43 ---	21 43 ---	22 43 BIRDS1	23 43 ---	24 43 HornSlac	25 43 ---
19 44 ---	20 44 ---	21 44 ---	22 44 SEA_L	23 44 ---	24 44 DarkHrnS	25 44 ---
19 45 ---	20 45 ---	21 45 ---	22 45 SEA_R	23 45 ---	24 45 ---	25 45 ---
19 46 ---	20 46 ---	21 46 ---	22 46 BIRDS2	23 46 ---	24 46 ---	25 46 ---
19 47 ---	20 47 ---	21 47 ---	22 47 HUND1	23 47 ---	24 47 ---	25 47 ---
19 48 ---	20 48 ---	21 48 ---	22 48 KLICKER1	23 48 ---	24 48 ---	25 48 ---
19 49 ---	20 49 ---	21 49 ---	22 49 SNIBBLER	23 49 ---	24 49 ---	25 49 ---
19 50 ---	20 50 ---	21 50 ---	22 50 JUBBLER	23 50 ---	24 50 ---	25 50 ---
19 51 ---	20 51 HRNS2s_4	21 51 ---	22 51 KNOBBLER	23 51 ---	24 51 ---	25 51 ---
19 52 ---	20 52 HRNS2s_6	21 52 ---	22 52 ---	23 52 ---	24 52 ---	25 52 ---
19 53 ---	20 53 ---	21 53 ---	22 53 ---	23 53 ---	24 53 ---	25 53 ---
19 54 ---	20 54 ---	21 54 ---	22 54 ---	23 54 ---	24 54 ---	25 54 ---
19 55 ---	20 55 ---	21 55 ---	22 55 ---	23 55 ---	24 55 ---	25 55 ---
19 56 ---	20 56 ---	21 56 ---	22 56 UHR	23 56 ---	24 56 ---	25 56 ---
19 57 ---	20 57 ---	21 57 ---	22 57 ---	23 57 ---	24 57 EpVcUuh	25 57 ---
19 58 ---	20 58 ---	21 58 ---	22 58 ---	23 58 ---	24 58 EpVcUuhs	25 58 ---
19 59 ---	20 59 ---	21 59 ---	22 59 ---	23 59 ---	24 59 ---	25 59 ---
19 60 ---	20 60 ---	21 60 ---	22 60 ---	23 60 ---	24 60 DarkOrch	25 60 ---
19 61 ---	20 61 ---	21 61 ---	22 61 ---	23 61 ---	24 61 FrObow	25 61 ---
19 62 ---	20 62 ---	21 62 ---	22 62 ---	23 62 ---	24 62 Duduk	25 62 ---
19 63 ---	20 63 ---	21 63 ---	22 63 ---	23 63 ---	24 63 ---	25 63 ---
19 64 MHFST_3*	20 64 SALTER_1	21 64 SAJU	22 64 KYRIE	23 64 MHFST_3	24 64 DarkHom	25 64 HMM_6
19 65 MHSLW_3*	20 65 VLUT_3	21 65 SQUAREJ	22 65 GLORIA	23 65 MHSLW_3	24 65 UIPipe	25 65 OOH_2
19 66 MHSLWS_3*	20 66 JZFLT_4	21 66 SQUARE1	22 66 HALLELU	23 66 MHSLWS_3	24 66 ---	25 66 AAH_2
19 67 HARM_4*	20 67 SGFLT_4	21 67 SQUARE2	22 67 AMEN	23 67 HARM_4	24 67 LogDrmS	25 67 DOH_2
19 68 ---	20 68 ---	21 68 SQUARE3	22 68 ---	23 68 ---	24 68 LogDrm	25 68 DAH_2
19 69 ---	20 69 ---	21 69 SQUARE4	22 69 ---	23 69 ---	24 69 MonoCrdS	25 69 BAH_2
19 70 ---	20 70 ---	21 70 ---	22 70 ---	23 70 ---	24 70 MonoCrd	25 70 DOM_6
19 71 TNGBAS_3	20 71 ---	21 71 ---	22 71 ---	23 71 ---	24 71 CHarpS	25 71 CHRYSN_3
19 72 TNGACC_3	20 72 CBLK_3	21 72 JUMP_3	22 72 ---	23 72 ---	24 72 CHarp	25 72 BREATH_2
19 73 AKK3_4	20 73 PAN_3	21 73 FMOOG_4	22 73 ---	23 73 ---	24 73 ISoloVcS	25 73 DUH_2
19 74 AKK1_1	20 74 ANDPIP_6	21 74 BSLLD_4	22 74 ---	23 74 ---	24 74 ISoloVc	25 74 ---
19 75 ACC16_B	20 75 ---	21 75 ---	22 75 ---	23 75 ---	24 75 HumWhis	25 75 ---
19 76 ACC9_B	20 76 SHAK1_1	21 76 JUMP2s_3	22 76 ---	23 76 ---	24 76 HumWhilo	25 76 ---
19 77 ACC4_B	20 77 ---	21 77 FMOOGs_4	22 77 ---	23 77 ---	24 77 HumWhiMd	25 77 ---
19 78 ACCRD1_B	20 78 ---	21 78 SAWJt	22 78 ---	23 78 ---	24 78 HumWhiNs	25 78 ---
19 79 ACCCAS_B	20 79 ---	21 79 SQUAREJt	22 79 ---	23 79 ---	24 79 FrObowLo	25 79 ---
19 80 ACCPIC_B	20 80 ---	21 80 WAVE1_3	22 80 ---	23 80 ---	24 80 FrObowHi	25 80 ---
19 81 FLKACC_4	20 81 ---	21 81 WAVE3_3	22 81 ---	23 81 ---	24 81 Duduk Hi	25 81 ---
19 82 SCHKL_4	20 82 ---	21 82 ---	22 82 ---	23 82 ---	24 82 Duduk Lo	25 82 ---
19 83 MUST1_1	20 83 ---	21 83 FBELL_4	22 83 ---	23 83 ---	24 83 UIPipeLo	25 83 ---
19 84 MUST1_B	20 84 ---	21 84 XANL_4	22 84 ---	23 84 ---	24 84 UIPipeHi	25 84 ---
19 85 ---	20 85 ---	21 85 SQSYL_4	22 85 ---	23 85 ---	24 85 CHarpLo	25 85 ---
19 86 ---	20 86 ---	21 86 FTSY_3	22 86 ---	23 86 ---	24 86 CHarpHi	25 86 ---
19 87 ---	20 87 ---	21 87 PADI_3	22 87 ---	23 87 ---	24 87 MovBrssS	25 87 ---
19 88 ---	20 88 ---	21 88 ---	22 88 ---	23 88 ---	24 88 MovBrass	25 88 ---
19 89 ---	20 89 ---	21 89 ---	22 89 ---	23 89 ---	24 89 MovBrsLS	25 89 ---
19 90 ---	20 90 ---	21 90 ---	22 90 ---	23 90 ---	24 90 MovBrsHS	25 90 ---
19 91 ---	20 91 ---	21 91 ---	22 91 ---	23 91 ---	24 91 MovBrsLo	25 91 ---
19 92 ---	20 92 ---	21 92 ---	22 92 ---	23 92 ---	24 92 MovBrsHi	25 92 ---
19 93 ---	20 93 ---	21 93 ---	22 93 ---	23 93 ---	24 93 DrkOrcFx	25 93 ---
19 94 ---	20 94 ---	21 94 ---	22 94 ---	23 94 ---	24 94 EpMaleVc	25 94 ---
19 95 ---	20 95 ---	21 95 ---	22 95 ---	23 95 ---	24 95 EpMaleVc	25 95 ---
19 96 ACC16M_B	20 96 ---	21 96 ---	22 96 ---	23 96 ---	24 96 ---	25 96 ---
19 97 ACC16P_B	20 97 ---	21 97 ---	22 97 ---	23 97 ---	24 97 ---	25 97 ---
19 98 ACC8M_B	20 98 ---	21 98 ---	22 98 ---	23 98 ---	24 98 ---	25 98 ---
19 99 ACC8P_B	20 99 ---	21 99 ---	22 99 ---	23 99 ---	24 99 ---	25 99 ---
19 100 ACC4M_B	20 100 ---	21 100 ---	22 100 ---	23 100 ---	24 100 ---	25 100 ---
19 101 ACC4P_B	20 101 ---	21 101 ---	22 101 ---	23 101 ---	24 101 ---	25 101 ---
19 102 AC16PP_B	20 102 ---	21 102 ---	22 102 ---	23 102 ---	24 102 ---	25 102 ---
19 103 ACC8PP_B	20 103 ---	21 103 ---	22 103 ---	23 103 ---	24 103 ---	25 103 ---
19 104 ACC4PP_B	20 104 ---	21 104 ---	22 104 ---	23 104 ---	24 104 ---	25 104 ---
19 105 ---	20 105 ---	21 105 ---	22 105 ---	23 105 ---	24 105 ---	25 105 ---
19 106 ACC184_B	20 106 ---	21 106 ---	22 106 ---	23 106 ---	24 106 ---	25 106 ---
19 107 ACC284_B	20 107 ---	21 107 ---	22 107 ---	23 107 ---	24 107 ---	25 107 ---
19 108 ACC384_B	20 108 ---	21 108 ---	22 108 ---	23 108 ---	24 108 ---	25 108 ---
19 109 ACC484_B	20 109 ---	21 109 ---	22 109 ---	23 109 ---	24 109 ---	25 109 ---
19 110 ---	20 110 ---	21 110 ---	22 110 ---	23 110 ---	24 110 ---	25 110 ---
19 111 ---	20 111 ---	21 111 ---	22 111 ---	23 111 ---	24 111 ---	25 111 ---
19 112 ---	20 112 ---	21 112 ---	22 112 ---	23 112 ---	24 112 ---	25 112 ---
19 113 ---	20 113 ---	21 113 ---	22 113 ---	23 113 ---	24 113 ---	25 113 ---
19 114 ---	20 114 ---	21 114 ---	22 114 ---	23 114 ---	24 114 ---	25 114 ---
19 115 ---	20 115 ---	21 115 ---	22 115 ---	23 115 ---	24 115 ---	25 115 ---
19 116 ---	20 116 ---	21 116 ---	22 116 ---	23 116 ---	24 116 ---	25 116 ---
19 117 ---	20 117 ---	21 117 ---	22 117 ---	23 117 ---	24 117 ---	25 117 ---
19 118 ---	20 118 ---	21 118 ---	22 118 ---	23 118 ---	24 118 ---	25 118 ---
19 119 ---	20 119 ---	21 119 ---	22 119 ---	23 119 ---	24 119 ---	25 119 ---
19 120 KEYKLOPF	20 120 BRFL2_4	21 120 SET1	22 120 SET1	23 120 ---	24 120 ---	25 120 ---
19 121 ---	20 121 STBFAL_1	21 121 ---	22 121 ---	23 121 ---	24 121 ---	25 121 ---
19 122 ---	20 122 HORNLRf2	21 122 ---	22 122 ---	23 122 ---	24 122 ---	25 122 ---
19 123 ---	20 123 ---	21 123 ---	22 123 ---	23 123 ---	24 123 ---	25 123 ---
19 124 ---	20 124 BRFL2s_4	21 124 ---	22 124 ---	23 124 ---	24 124 ---	25 124 ---
19 125 ---	20 125 STBFLs_1	21 125 ---	22 125 ---	23 125 ---	24 125 ---	25 125 ---
19 126 ---	20 126 HRNLRf2s	21 126 ---	22 126 ---	23 126 ---	24 126 ---	25 126 ---
19 127 ---	20 127 ---	21 127 ---	22 127 ---	23 127 ---	24 127 ---	25 127 ---



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