

# Welcome!

Thank you for purchasing the Ketron SD90 Multimedia Player! This “Instruction Manual” describes what you need to do to use your Multimedia Module immediately. Please read this Instruction Manual carefully to ensure that you obtain the best performance from your instrument either live or in a recording studio.

SD90 revolutionises the way you use this instrument thanks to its new wide colour Touch Screen. Most of the functions may in fact be enabled with just a “touch” of the keys on the screen.



# Specifications

- **Poliphony** : 128 note. Multitimbral 64 parts.
- **Display** : Lcd color Tft 7". Touch screen capacitive 800 x 480 dots. Brightness control.
- **Sound & Voices** : 672 GM Sounds. 5 Sound Banks. 61 Drum Sets. 368 Preset Voices. 1500 User Voices. 2nd Voice. V-Tone. Advanced Voice Editing. Voice List : 80 Voices programmable and Style assignable. Filter and Resonance live controls.
- **Live Drum** : Up to 100 Stereo Live Drums. Wav streaming with Time stretching and 3 Band stereo Equalizer. Full Arranger structure with ABCD, Fill, Break, Intro-End.
- **Live Guitar** : 150 audio Live Guitars (Folk Acoustic, Electric, Nylon). Stereo and Mix version.
- **Grooves** : 530 Grooves with Latin Percussions, Brazilian, individual and full Drums loops.
- **Audio Drum (Grv)** : 159 sliced audio Drums loops. Full Arranger structure with ABCD, Fill, Break, Intro-End.
- **Arranger** : 400 styles. 140 Live Styles with Live Drums, Live Guitars and Grooves. Compatibility with User Audio Drum @ from Audya series and SD Series (SD7, SD40, SD80). 4 Arranger ABCD. 4 Fill. 4 Break. 3 Intro. 3 Ending. Auto Fill. Fill to Arrange. To End. Reintro. Key Start. Key Stop. Restart. Pause. Count In. Midi Drum Mixer & Remap. Drum Boost. 4 Voice Variations. Voice to ABCD. Voice List assign to Style. 5 User Tabs. Pianist and Bassist mode. Manual Bass. Bass to Lowest. Bass to Root.
- **Style Edit** : Full Pattern creation and Editing. Functions : Record, Copy, Clear, Quantize, Velocity, Octave. User Style section ( unlimited disk locations).
- **Live Modeling** : Style Live Modeling Library with Live Drums, Grv (Audio Drum Loops), Live Guitars, Grooves, Bass, Piano, Guitar, Orchestral and Synth templates.
- **Launchpad** : Up to 2048 Launchpad projects. 12 pads with 6 Scenes. 30 internal demos. 3 x Wav simultaneous with Time stretching and Midi synchronization. Functions : Record, Phase, Song, Single/Loop, Pad control, Harmonic/Melodic mode, Live Efx pad control. Drum kit Looper. Style Import. Full interaction with Style Live Modeling.
- **Player** : Double Player. Files recognized : Wav, Midi , Mp3, Mp4, Avi, Mov, Flv, Cdg, Jpg, Txt, Pdf. Functions : Marker. Sync/Next. Autoplay. Lead Mute. GM part. Lyric Off. Cross fade. File Search. Play List. My Folder. Transposer. Time stretching. Metronome Click. Midi Multimix. Song Drum Restyle. Audio and Midi synchronize.
- **Audio Multitrack Player** :5+1 Audio tracks with separate slider control. Metronome click out.
- **DJ** : Double Audio and Midi player with Tempo & Pitch stretching, Pfl, Sync, Tap tempo, Cue, Fx Pad, Backspin, Brake.
- **Juke Box** : Play List, My Folders, SFX Special Effects.
- **Pic& Movie** : Jpg & Mp4, Avi, Mov, Flv, Karaoke background, Movie/PDF To RGB, Pic List, Autoshow.
- **Dvi** : Video Monitor Out, Karaoke Lyric / Mirror.
- **Menu** : Disk, Midi, Play Modes, Audio Edit, Language, Footswitch, Preferences, Controls, Video, Reg. Set up, Arabic Mode.
- **Media** : Internal Storage: SSD Card 16G. Usb: 3 Host + 1 device. Sd Card slot.
- **Play Modes** : Master keyboard. Accordion Style and Classic. Organ (with Pedalboard). Guitar mode with Efx (thru Input).
- **Keyboard Control** : Live Efx Chain editing. Aftertouch, Portamento, Double controls.
- **Registrations** : 4 Banks x 1024 Regs. Full Panel and function programming. 4 Playbox with 1024 files per folder ( including Midifile, Mp3, Wav).
- **Dsp** : 2 x DSP with 2 separate Reverb units, Chorus, Reverb, Flanger, Phaser, Tremolo, Rotary, Autopan, Echo Delay, Tap Delay, Equalizer, Distorsion, Amp simulator, Compressor, Filter. 64 Insert EFX Chains (10 User programmable ).
- **Recording** : HD Recording. 1 Stereo track. Loop. Audio Edit with Cut, Normalize. Midi Recording with Phrase and Song.
- **User Memory** : up to 400 MB free User programmable.
- **Micro** : XLR Input. Gain control. Volume. Reverb. Micro On/Off Edit. Talk.
- **Voicetron** : 3 Voice Voicetron. Manual, Unison, Midi Mode, Pitch Corrections, Autotune, Harmony Duet & Trio. 10 Voicetron User.

- **Instruction Manual** : Html on board.
- **Midi** : In1 ( Gm ), In 2 (Keyb). Out. Thru. Midi Set up : Standard, Computer & Sequencer, Keyboard Right, Accordion, Player, Style.
- **Out** : Left/Right Stereo, Pedal Volume, Sustain Pedal, Micro Out.
- **Input** : Guitar ( Instrument ) / Micro2.
- **Headphone** : Stereo Headphone. Aux separate Out Assign ( to Drums, Right, Bass, Click).
- **Optional** : Footswitch 6 or 13, Volume Pedal, Sustain pedal, Bag.
- **Power Supply** : External 9V-4A.
- **Dimensions** : 42,2 x 11,5 x 25,5 cm. (16,7 x 4,5 x 10,1 inches).
- **Weight** : 4 Kg. (8 lbs.)

\*All specifications and appearances are subject to change without notice.

## SAFETY INSTRUCTIONS

### RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS.

**Caution:** to reduce the risk of fire or electric shock, do not expose the instrument to rain or humidity.

### IMPORTANT INSTRUCTIONS FOR SAFETY AND INSTALLATION

**CAUTION** – When using an electrical product it is important to take a number of precautions such as the following:



- Read the Instruction Manual before using the instrument.
- An adult should always supervise children when they play the instrument.
- Do not use the instrument in areas subject to seepage or water spray, such as next to a sink, a swimming pool, on a damp surfaces etc.; do not place containers with liquids on the instrument to prevent accidental seepage of liquid into the instrument.
- The instrument should be used only on a stand recommended by the manufacturer.
- Do not use the instrument at a very high volume for long periods of time: very high noise levels are dangerous to health.
- Position the instrument in such a way as to ensure appropriate ventilation.
- Keep the instrument away from heat sources such as central heating radiators, stoves etc.
- Connect the instrument to the mains only with the mains adapter. You will find the identification and power supply details under the instrument.
- Disconnect the power supply cable if the instrument is not to be used for a long period of time.
- If necessary, disconnect the instrument using the power supply switch on the back panel. When positioning the instrument, always ensure that this switch is easy to reach.
- Take the instrument to a service centre if:
  - a. the power supply cable or plug are damaged.
  - b. objects or liquid have fallen into the instrument.

- c. the instrument has been exposed to rain.
  - d. the instrument is not functioning properly or performance is impaired.
  - e. the instrument has been dropped or the chassis is damaged.
- Never attempt to repair the instrument on your own; all repairs should be carried out by a qualified technician.

## **KEEP THIS INSTRUCTION MANUAL IN A SAFE PLACE**

### **PREVENTING RADIO/TV DISTURBANCE**

This instrument operates on the radio frequency band. If it is not installed correctly and strictly in compliance with the instructions provided it may disturb the reception of radio-television appliances. Although the instrument you have purchased has been designed in compliance with applicable laws and in such a way as to provide reasonable protection against such disturbances, there is no guarantee that these will not occur. To check whether any disturbance you are experiencing is in fact produced by your instrument, turn it off to see if the disturbance disappears. Turn the instrument on again to see if the disturbance reappears. Once you are certain that your instrument is in fact causing the disturbance, take any of the following measures:

- Adjust the antenna of the radio or TV receiver.
- Place the instrument in a different position with respect to the radio or TV receiver.
- Place the instrument further away from the receiver.
- Connect the plug of the instrument to another socket so that the instrument and the receiver are connected to two different circuits.
- If necessary, call in a servicing technician.

### **POWER SUPPLY**

- When you connect the instrument to other appliances (amplifier, mixer, Midi instruments etc.), ensure that all the units are off.
- Read the recommendations regarding Radio and TV disturbances.

### **INSTRUMENT CARE**

- Clean the surfaces of the instrument with a soft dry cloth. Never use gasoline, diluting agents or solvents of any kind.

### **OTHER PRECAUTIONS**

If you wish to use your instrument in a foreign country and have doubts about the power supply, consult a qualified technician before you leave. The instrument should never be subjected to strong shocks.

### **CURRENT ADAPTERS**

When connecting this instrument to the mains socket, use only the KETRON current adapter supplied with the instrument. The use of different current adapters may damage the power supply circuits of the instrument. It is therefore of fundamental importance to use only an original adapter, requesting the correct model when ordering a new adapter.

### **INFORMATION FOR USERS**

“Implementation of Directive 2002/95/CE, 2002/96/CE and 2003/108/CE on reduced use of dangerous substances in electrical and electronic appliances and waste disposal”.

The crossed bin symbol shown on the appliance means that at the end of its life the instrument must be disposed of separately from other waste. At the end of its life the user should therefore take the instrument to a separate waste centre for electronic and electrical products, or return the same to the dealer when purchasing a new and similar instrument, whichever is applicable. Disposing of the instrument correctly so that it may be consequently recycled and disposed of in an environmentally compatible manner helps to prevent possible negative effects to the environment and health and ensures that the components of the instrument are recycled. Unauthorised disposal of the product by the user entails the application of administrative penalties.



This symbol indicates that in EU countries, this product must be collected separately from household waste, as defined in each region. Products bearing this symbol must not be discarded together with household waste.

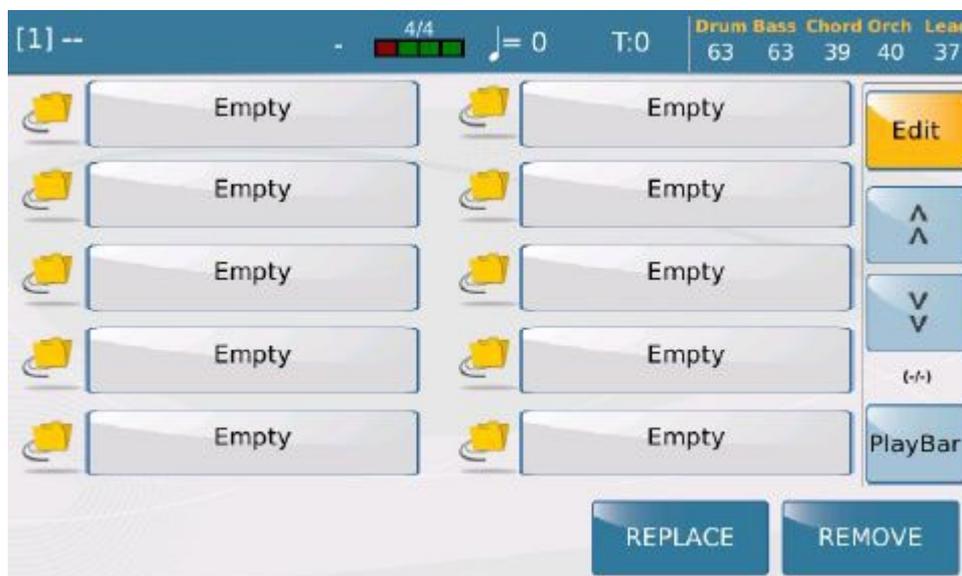


# My Folder



Myfolder is a shortcut to access your preferred directories. When you select this function, all the directors that have been “labelled” myfolder (or preferred directories), will be displayed in the list of preferred directories. The function therefore provides quick access without having to scroll through other directories and sub-directors...all you need to do to open the directory you require is touch it.

You may manage your preferred folders by selecting **EDIT**.



You may perform important activities on this page.

- **You may create a Myfolder** directory by selecting **EMPTY**, and then hitting **YES** to confirm the request displayed in the dialogue window.



At this point all you need to do is select the directory and then **INSERT ITEM** to add it to your preferred folders.

- To do this enable the **REPLACE** function and select the directory you wish to replace; the display shows you the current directory where you may select the new directory. Select the directory and then select **INSERT ITEM**.
- Finally, you may also **delete** a directory in Myfolder by selecting the required directory and then the **REMOVE** function.

*Info: Since these are simply “directory links” if you accidentally delete a directory in Myfolder the “real” directory and the files it contains are not deleted.*

## [PLAYER GM](#)



# Front Panel



The main feature of the front panel is a wide colour touch screen which is the central point of the user interface system.



On the left of the display there are 4 tabs:

**-LEAD MUTE:** This key allows you to mute the melody track of the Midi file (generally this is track 4 but it may be modified if the Midi file does not comply with conventional Midi protocol) or, when an audio file is playing, it attenuates the vocal line of the file. In other words, the main voice is considerably attenuated allowing you to sing over the original songs. This device operates in real time and does not damage the song you are playing, so that you may return to the original version whenever you wish.

**Info :** *The result of the Lead Mute function on audio files depends on the type of File used in terms of mixing and*

effects (reverb, panpot etc...).

- **LYRIC** : Turns the screen which displays the **lyrics of the file** on or off.

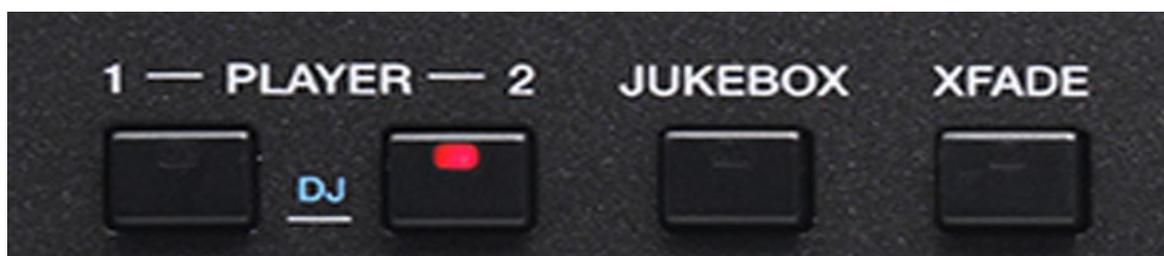
- **SEARCH**: File search key.

- **GM** : : Allows you to manage the sounds assigned to the Midi tracks of the file you have loaded.

- **PIC&MOVIE**: Opens a screen on which you can manage graphic and video files by pressing LYRICS and SEARCH tab.

- **PDF ON**: This tab enables / disables the display of PDF files on STYLE / REGISTRATION / PLAYE environments

- **PDF CTRL**: This tab allows control of the PDF files from environments such STYLE / REGISTRATION of SD90. It activates a new screen will pop up where you can control some functions related to display PDF file



- **PLAYER 1 e 2**: Use these keys to select the player you wish to use in **PLAYER** mode.

-**JUKE BOX**: This function manages songs spontaneously, just like a JUKE BOX.

-**XFADE** : Key for cross fading two musical files.

-**DJ**: Press simultaneously PLAYER 1 and PLAYER 2 tabs to access the file management on 'DJ" mode



-**PIANIST**: Extends the sound of the right hand over the full keyboard.

-**LOWEST**: Assigns the lowest note of the chord to the Bass over and above the basic This tab allows a second function on **Organ** menu

-**MANUAL**: Sets the manual Bass for the left hand..

-**SPLIT**: Set the SPLIT point on keyboard that divides the Lower part (left) from the Upper part (right).

-  - This symbol, found alongside some tabs, represents the 2nd "Edit" function . Holding down for a while will show related secondary menu EDIT related.

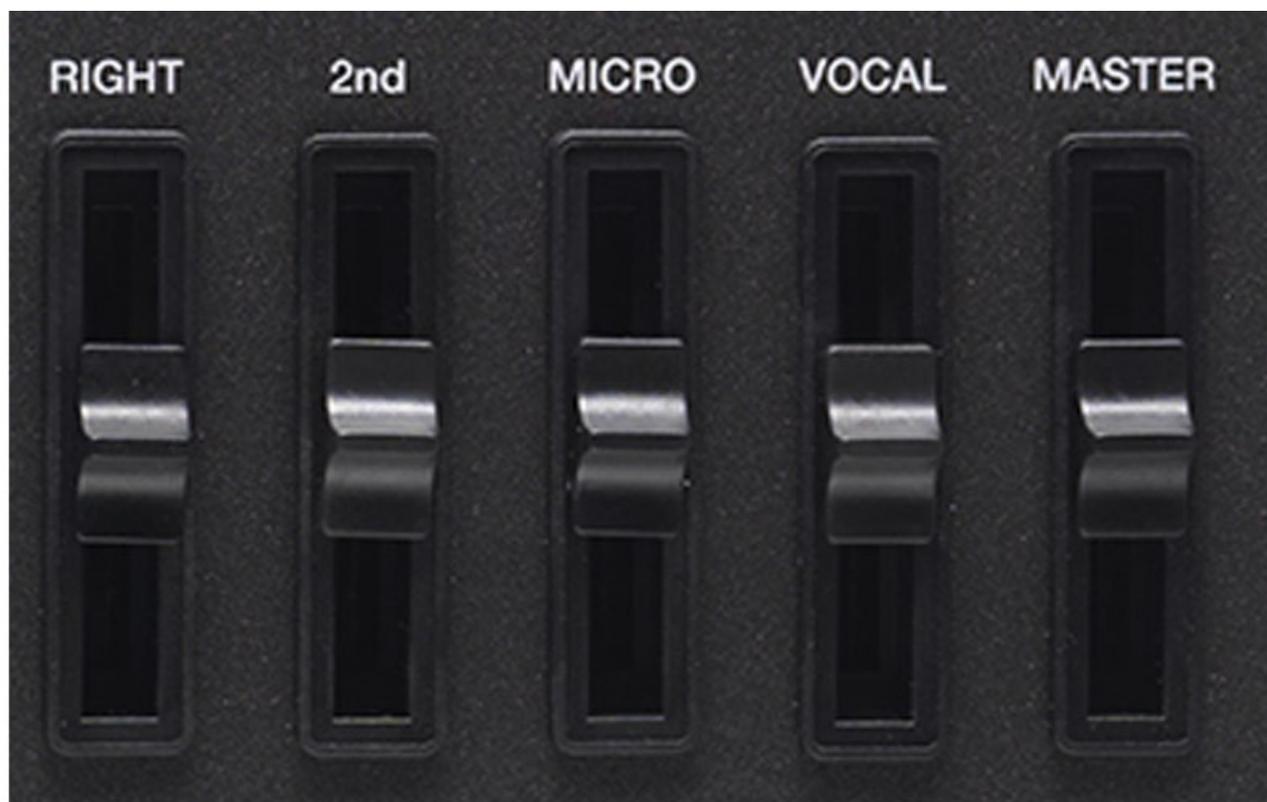


Here you can control Volume of Players , Arranger and Audio MultiTrack sections:

-**PLAYER 1/2 and STYLE**: Control the volumes of the two [PLAYER](#) and [STYLE](#) section

-**DRUM-BASS-CHORD-LOWER**: Control the volumes of these individual sections on [STYLE](#) and [LOWER](#) part of SD90.

-**AUDIO MULTITRACK**: Control volume of individual tracks available on the menu [AUDIO MULTITRACK](#)



Here you can control Volume of sections: Right, 2nd, Micro, Vocal section and master volume of SD 90 :

[\*\*RIGHT\*\*](#)

[\*\*2ND\*\*](#)

[\*\*MICRO\*\*](#)

[\*\*VOCAL\*\*](#)

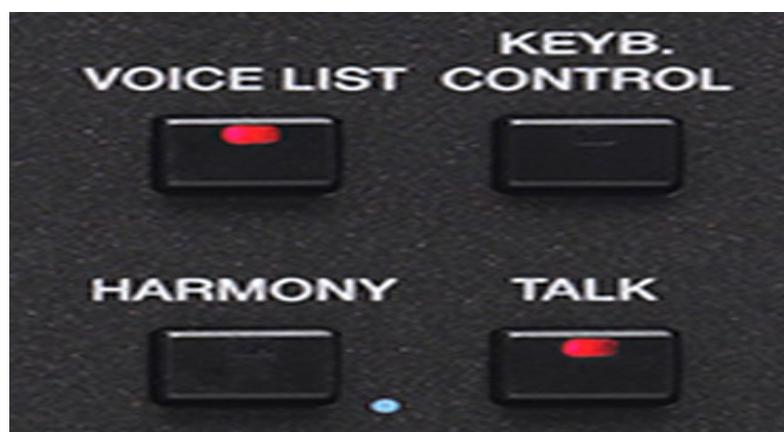
**MASTER** : General Volume of SD 90



- **TRANSP - +** : Press the keys - and + to transposes the entire keyboard in semitone steps. By pressing both tabs simultaneously SD90 allow a Pop Up menu.

- **OCTAVE - +** : By pressing the + and - buttons transposes the right part of SD90 on octave above or below. Display shows the value of OCTAVE Up or Down in use.

- **MODE**: Holding down the buttons + and - for a few moments you will display in this way [MENU](#)



- **VOICE LIST**: This command activates the VOICE LIST menu that features 32 sound locations for your "favorite" Voices.

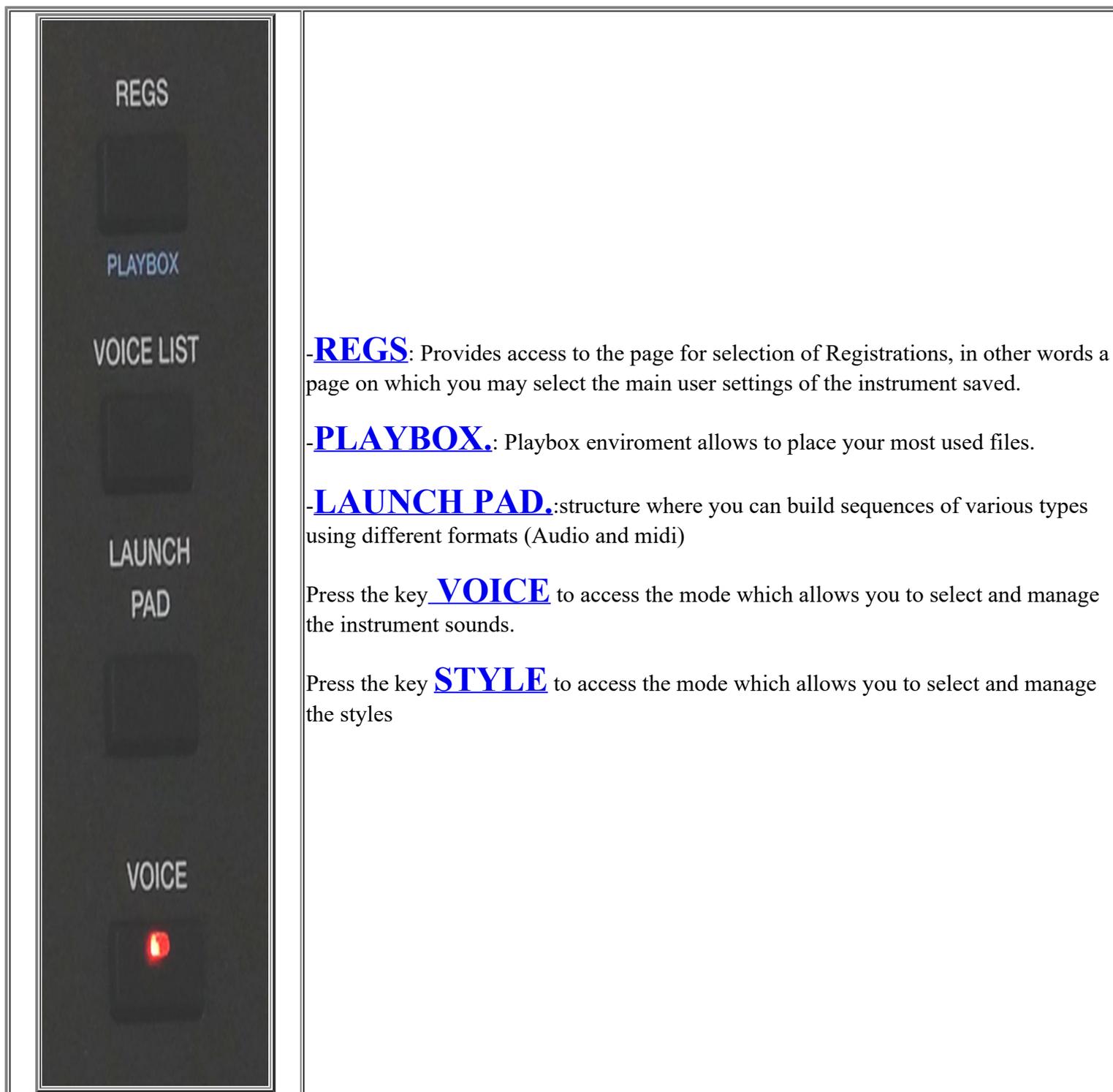
- **KEYB CONTROL** : By pressing this button DOUBLE Voice function is activated on right hand. Pressing and holding this tab for a few seconds to access on Keyb.Ctrl Pop Up functions for Portamento and Aftertouch feature

- **HARMONY** : Pressing HARMONY function is activated harmonization dedicated to VOICES available for the right hand. Press this button for a while for the selection of available presets.

- **TALK**: This button remove (or decreases depending on the selected preset) the effect from 1 Micro. Useful

function when you stop singing and if you want to speak into the microphone.

-  - This symbol, found alongside some tabs, represents the 2nd "Edit" function . Holding down for a while will show related secondary menu EDIT related.



- **REGS**: Provides access to the page for selection of Registrations, in other words a page on which you may select the main user settings of the instrument saved.

- **PLAYBOX**: Playbox environment allows to place your most used files.

- **LAUNCH PAD**: structure where you can build sequences of various types using different formats (Audio and midi)

Press the key **VOICE** to access the mode which allows you to select and manage the instrument sounds.

Press the key **STYLE** to access the mode which allows you to select and manage the styles



- **DATA/VALUE**, this knob is also called **Dial**, and allows you to select files and parameters and edit the values selected.

Next, you will find the following keys.

- **ENTER /Page** : Use to confirm different operations or enter the folders selected

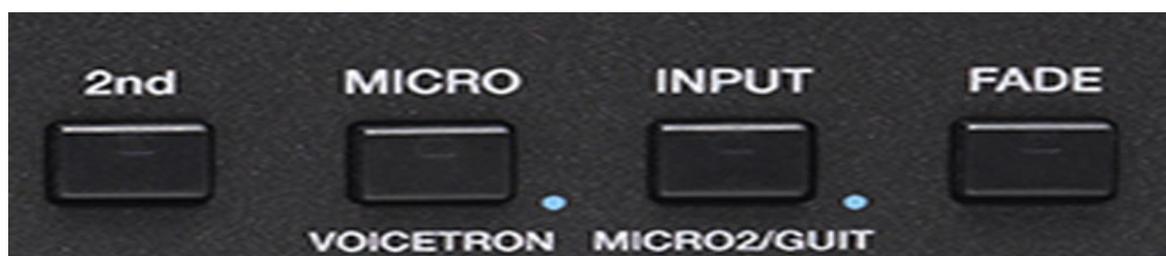
- **EXIT**: Use to cancel an operation or escape from the current screen and display the previous screen, or exit a folder and back root. This button also support led of incoming activity on Midi In port.

- **SAVE**: Saves any modifications made on the instrument.

- **Midi Reset**: Pressing Exit and Save simultaneously SD90 send a Midi Reset (Reset all events and midi controller instantly).

- **MEDIA**: Displays the memory devices installed on the instrument or connected via the USB ports

- **MENU**: Displays and provides access to all the sections of the instrument



-**2nd VOICE** : The button allows you to turn on or off "on the fly" 2nd Voice on the right part. The name of the 2nd voice assigned appears in the display (bottom right side)

-**MICRO** : This button activates microphone connected to the MICRO 1. Hold down for a while to access on Edit page and presets.

-**INPUT** : Activates the signal connected to the INPUT usable for Micro, .Guitar or else. Hold down for a while to access on Edit page and presets.

-**FADE** : Button that activates FadeOut feature automatically. Is applied on SD90 MAIN audio output.



-**FILTER** : Pres this button to activate FILTER function. Hold on this tab for few seconds to access the 2nd menu/Edit dedicated.

-**DSP** : Press this tab for viewing section dedicated to effects such as reverbs, modulations and other EFX

-**DRUM SET** : Activates the Manual Drum. Moreover allows Drum Kit and Drum Mixer changing of volume and reverb on percussive sounds.

- **RECORD** : Press this button to access on Recording Audio and Midi section



# Introduction



The Introduction screen (HOME) is displayed automatically when you turn on the instrument and provides access to the main functions, such as:

## - SOUND FAMILY SELECTION -



Press this icon to select page of the families of sound that will appear in this way:



## - SINGLE STYLE SELECTION -



Press this icon to select different Styles from selected family Style:

## - STYLE FAMILY SELECTION -



Press this icon to select Styles groups page as shown in the image below:



## - MENU CONTROL AREA -



In this area you can access to different menu on the Arranger Menu which will be explained in detail on the dedicated section [.ARRANGER](#)



# Player GM

When you select the icon PLAYER-GM on the Intro screen, the contents of the internal solid disk (SSD) are displayed to load the files.

When you select the Player menu, the contents of the media device selected (SSD, Card, USB, etc) are displayed.



To navigate use:

1. The **Touch Screen** that allows you to select the file directly and enter the folder with a double click.
2. The **Dial DATA/ VALUE** to scroll files, folders or edit the parameters in Editing mode.
3. The **Exit key** to escape from folders and back root.
4. The **Enter key** to enter the folder selected rather than double clicking on the Touch screen.



When you touch the file, it will be selected and highlighted in orange and loaded in player 1.



SD90 is now ready for you to play!

Press START/STOP to start reproduction or touch the filename selected a second time or press Enter. When the file is in play, the red light of the START /STOP key lights up.

**N.B :** *when the Auto Play function on the **FUNCTION** menu (displayed at the bottom on the right) is enabled, the songs in the folder are reproduced automatically from first to last.*



This is the main screen of the **PLAYER GM** section, created specifically for Midifiles, audio files, videos and images.

On this screen, if the file contains the Lyrics, these may be displayed on the screen or on an external monitor.

The **upper bar** displays the current status at all time, showing the following information:

Name of the file selected, preceded by a number in square brackets that indicates the player selected.

- Metronome time (only for Midifiles).
- Speed (only for Midifile).
- Transposition value set for the file playing.
- Volumes of the Drum, Bass, Chord, Orch. (Lower) and Lead sections.

Using the **box on the right**, you may scroll the list of files and folders from top to bottom. During execution a beat / time **counter** is displayed. For more information regarding the current file and to go back or forwards, select the **PLAYER**.



If the **PFL TO PLAYER** function is enabled on the **PREFERENCE** menu, the virtual key PFL is displayed on the right hand bar, which may be used to listen to the song you are playing through the headphones.



If the file contains Karaoke type lyrics, these are displayed at the centre of the screen instead of the contents of the folder selected, while the list of files may be displayed by pressing the **LYRIC OFF** key on the left of the front panel. Press the key again to display the lyrics. With the lyrics file you can pass to **Full screen mode** by touching the centre of the screen where the lyrics are scrolling. Touch a second time to return to normal display mode.

If the file does not contain lyrics, a separate **.txt** file may be associated to the file. To do this, the **.txt** file must have the same name as the music file and must be stored in the same folder (E.g. Newyork.mid and lyrics Newyork.txt). **SKIP FILE LINK** function must however be disabled on the Function page.

In order to associate a lyrics file to a Style, simply load the lyrics file and save in registration. To do this, load the **.txt** file in Player mode, then press Style and save the Registration. In this way the **.txt** file will be stored in Registration so that if it is accidentally deleted from the disk, the lyrics file will in any case be saved in Registration.

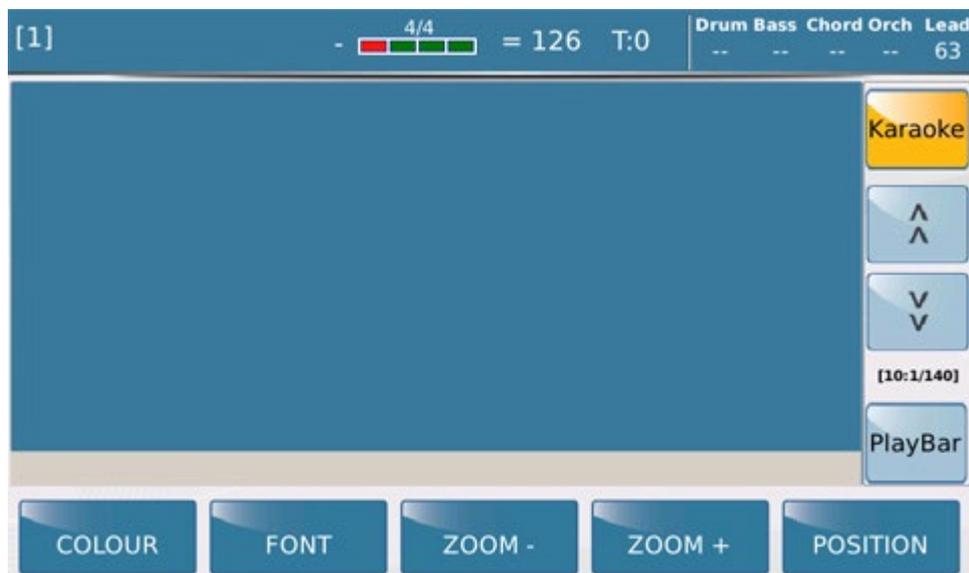
The **bottom bar** allows you to enter other functions, such as the following:

- **SYNC/NEXT**: To programme the next song
- **DRUM RESTYLE**: To link a style on your midifile
- **PLAYLIST**: To manage the personal list of songs
- **MY FOLDER**: To manage personal folders
- **MARKER**: To pass from one section to another of a file (the file must contain the markers)
- **FUNCTION**: To customise the settings of PLAYER GM

To load **player 2** simply press **PLAYER 2** and repeat the steps described previously.



If the file you are playing contains lyrics, a KARAOKE key appears in the right hand box at the top. When you select this, display functions for the lyrics will appear. These functions may be selected while the song is playing and the lyrics are scrolling on the screen, or even on Stop mode.



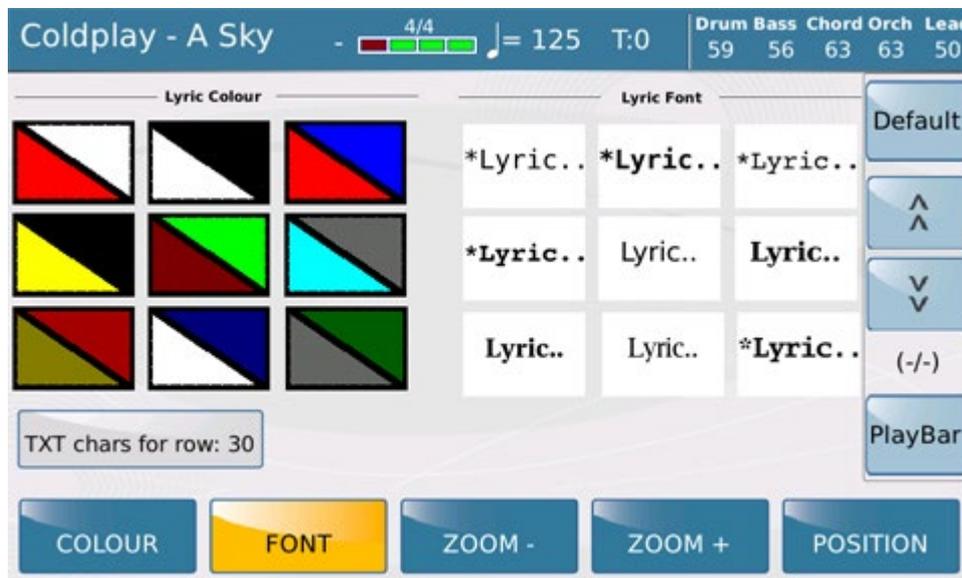
The default screen displays the following:



- **COLOUR** : Allows you to select the background for the lyrics

- **FONT**: Allows you to select the font and colour of the lyrics.

- **LYRIC TEXT**: inserted in the Karaoke menu -> FONT the possibility to choose the maximum number of characters for each line of text. The range is from 30 to 50. Can be saved on Custom Startup Default value: 30



- **ZOOM-**: Reduces the size of the lyrics.

- **ZOOM+**: Increases the size of the lyrics.

- **POSITION**: Aligns the lyrics at the centre when enabled, and to the left when disabled.

- **DEFAULT**: Restores the original settings of the colours and Karaoke desk, if these have been modified.

If a standard Midi file or ".kar" (karaoke) file is loaded on player, all the 16 Midi tracks of the song may be displayed by pressing the key **GM PART** on the front panel.

When the players are used, some keys remain enabled:

- **SEARCH**: Provides access to a page where you may search the files to reproduce on player.
- **XFADE**: Allows you to cross fade the 2 files being played.
- **TEMPO**: Allows you to change the speed of the song you are playing.
- **TRANSPOSER**: Allows you to increase or reduce the key of the module (including Mp3 and Midi files) at semitone intervals within a total range of +/- 12 semitones. This function makes it easier to play with difficult tones and makes it possible to play according to the vocal range of the singer.
- **OCTAVE**: The [+] and [-] buttons allow the pitch of the RIGHT part to be shifted up or down by one octave. The display shows the current value of OCTAVE Up or Down.
- **ENTER**: Standard key to confirm and accept modifications; this key may also be used during navigation to enter or load the files selected.
- **EXIT**: Use this key to escape from a screen and return to the previous screen or cancel an operation.
- **SAVE**: Use this key to save your settings.
- **MEDIA**: Use this key to access the internal Hard Disk and all the external mass memories connected.
- **MENU**: Allows you to access the full settings menu of SD90.

Finally, files may be replayed in standard **JUKE BOX** and **DJ** modes by pressing the relevant keys on the front panel on the left of the display.

## **Front Panel**



# Style

SD90 is also an Arranger and therefore features an entire section dedicated to automatic accompaniments called Styles.

Here will be treated menus and dedicated keys that affect both the Style that the Arranger Menu

Each Style has:

- Two tracks for drums (AUDIO DRUM) and percussions on Midi channels 9 and 10.
- One Bass track on Midi channel 51.
- One LIVE GUITAR Track
- Five harmonic tracks CH1, CH2, CH3, CH4, CH5 that function on Midi channels 6, 7, 8, 11, 12.
- Two "Real Time" tracks, namely Lower 1 and Lower 2 that are assigned to the left split of the keyboard, which function on Midi channels 3 and 4.
- One LEAD track that functions on the Upper section, namely on the right of the keyboard Split.

All the Midi settings of the SD90 may in any case be edited in the [MIDI](#) section.

A lyrics file may also be displayed when playing a Style. If you wish to associate a lyrics file to a Style, exit "Style" mode, load the lyrics file, return to "Style" mode and save the [Registration](#).

Each Style has:

- 3 Intros;**
- 3 Endings;**
- 4 Arrangements (A, B, C, D);** (or more related of Style configuration by pressing once more the Variation button)

Display show the presence of the variation 2 available in the Pattern A in use.

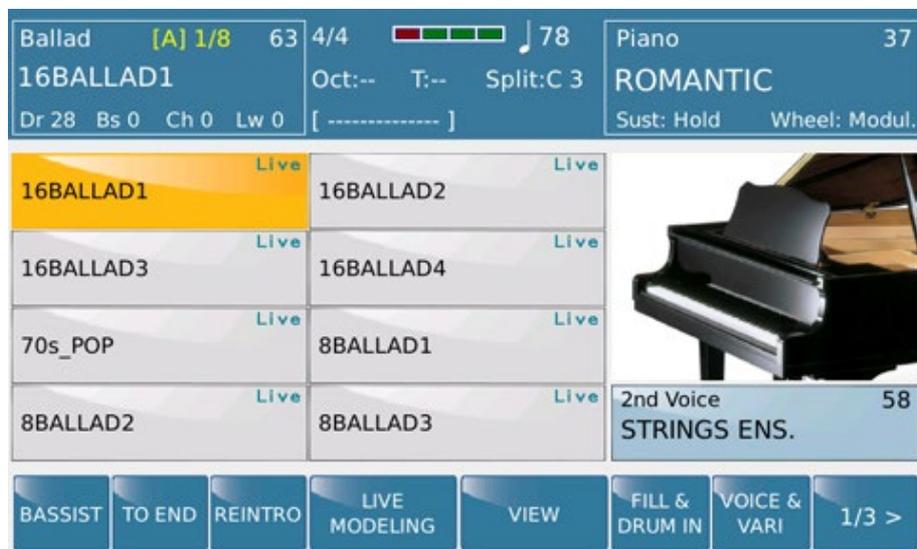


- 4 Fill;** (or more related of Style configuration )

- 4 Breaks.**

Another way to change the Style is by quickly inserting or removing the last 3 harmonic accompaniment tracks **CH3**, **CH4**, **CH5** with the key **Variation** that will be described in more detail later.

By pressing the **STYLE** key on the front panel, you will access the main screen of the Arranger built into the instrument.



Once selected on the upper-left of the display (Style menu selection area) you can access to the selection of individual styles. Styles family or single Styles can be selected also by pressing EXIT button.



Display show on the right column of the main categories of automatic accompaniment such Ballad, Pop, Dance etc ... including selection for **USER** and **MY LIST** menu BALLAD Category is selected as default .

**USER** folder is the location where you are going to Save Styles which will be modified.

The folder **MY LIST** is menu where you can allocate Styles used frequently. Thus just to avoid frantic searching in the various families of styles.

On the right are displayed Styles belonging to the selected category. 8 BEAT 1 is selected as default.

Down here the direct access buttons for the Style and Arranger management plus and other functions available also from the Touch screen display:



- **INTRO/ENDING: 1 - 2 - 3**

- **ARRANGE: A-B-C-D**

- **FILL:** Plays a different Fill according to the arrangement that has been enabled.

- **BREAK:** Inserts a different Break according to the arrangement enabled.

- **KEY START:** When this key is on, an automatic accompaniment is enabled when you play a chord on the Lower section of the keyboard connected to the Midi In of the instrument, without having to press the START/STOP key on the panel.

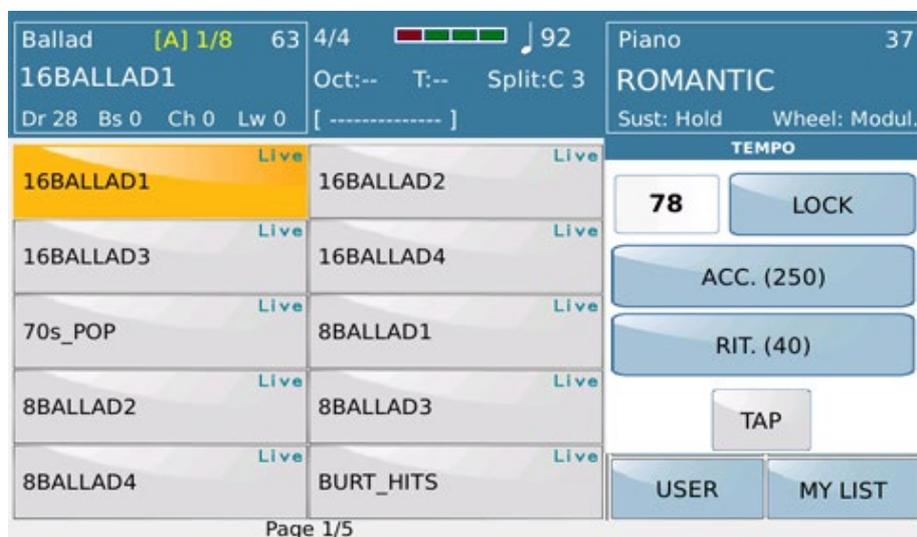
- **KEY STOP:** This key stops the accompaniment when you lift your hand from the Lower section of the keyboard.

- **PAUSE / RESTART/ COUNT IN:** Button to perform Start and Count In function on Style or Pause when Player is used.

- **START:** Press this button to activates the execution of the selected style or the file associated with the Player 1 / 2

- **HOLD ON:** Keeps the accompaniment playing even when you stop playing the chord with your left hand until you play the next chord.

- **TEMPO + - / MODE:** Pressing these buttons you can raise (SLOW) or increase (FAST) the tempo of the Arranger (or the selected file from the Player 1 or 2). Pressing both buttons simultaneously a PopUp menu (Mode) where you can set following functions:



- **LOCK:** Locks the speed while you are playing Style or a file from Player (1-2).

- **ACC:** (Accelerating) Increases the speed of the file you are playing at steps of 5 BPM.

- **RIT:** (Delaying): Decreases the speed of the file you are playing at steps of 5 BPM

- **TAP:** (Tapping): To synchronise the time with the “tapping” of your fingers.

- **EDIT -DRUM ON -RESTYLE:** These button allow to go thru EDIT menu of [RESTYLE](#).

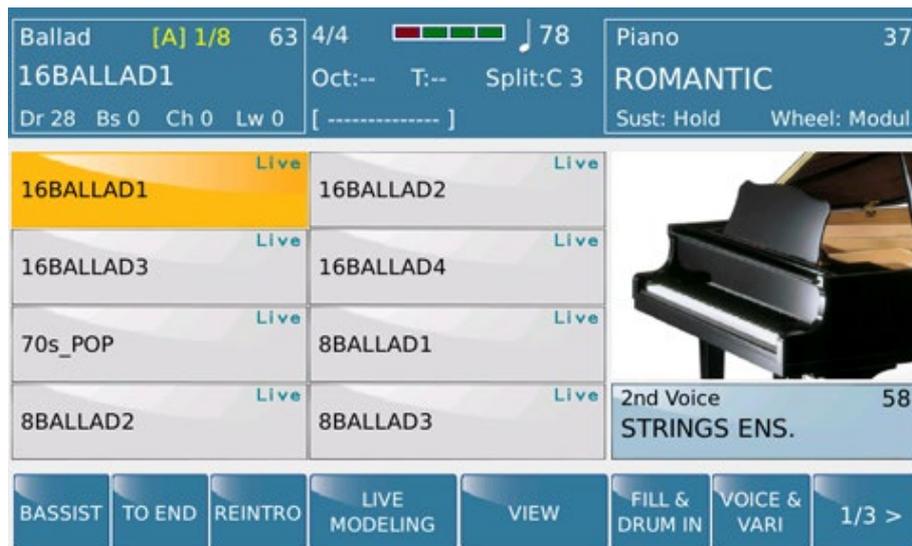
Many of the main controls in this section can also be controlled with **FS6/FS13** footswitch(optional).

On the panel are also functions associated with the management of the Style and / or the Arranger:

On the front panel of SD90 are always active cursors to adjust the volume of **DRUMS** , **BASS** part , harmonic section such accompaniment **CHORD, LOWER** section available on the left part of the Split



In the lower part of the display



are many Touch Screen direct access buttons that we find in the section named as [Arranger Setting](#).

## [Front Panel](#)





# Voice Mode

Press the key **VOICE** to access the mode which allows you to select and manage the instrument sounds.



The 11 instrument categories are displayed on the right of the main screen while the 8 drawings of 8 different types of instruments in the category selected are displayed at the centre. Each category consists of several pages and it is possible to toggle from one to another with the Dial.



After selecting the desired Voice you can access the menu by pressing **EDIT** briefly icon Voice choice.

The instrument can overlap up to 4 sounds over the full range of the keyboard or in the Upper section on the right of the split point. The fourth layer is called **2nd Voice** and may be enabled or disabled quickly directly from the main screen of Voice mode, by selecting the virtual key **2ND**.



or directly from Touch Screen view:



The Voices that eventually you are going to change will be saved in the USER location to avoid mistakenly overwrite the original Voices (Factory Set)

## [Front Panel](#)



# Media

When you press the key **MEDIA** a screen is displayed showing the devices installed in the instrument or connected via the USD ports.



The following functions are displayed at the bottom of the screen:

- **EJECT**: Use this function to remove the device selected, with exception of the internal SSD of the instrument (User FS). This is the same safe hardware removal function that you have on your computer, which protects devices connected from any damage that may occur if they are removed when data is being written to a file. Once the modifications have been made on the peripheral (saving a Midifile, copy, etc..) before removing the pen drive, press Eject to ensure that the modifications have actually been saved.

- **PC-CONNECT**: This function permits a computer connected by USB cable to the USB Device of SD90 to read all the storage devices installed on the SD90 and those connected to the USB Host ports. Once the connection has been enabled, the computer will read the internal SSD of the instrument and the internal optional Hard Disk that may be installed in the SD90 as well as any devices connected to the instrument via the USB Host ports, such as a Pen Drive.

Press the **PC CONNECT** function to disable the connection. A message will appear warning you to remove the hardware from the computer safely in order to avoid damage.

- **DISK EDIT**: This enables a number of functions for the files selected in the lower bar.

- **INFO**: Shows information relevant to the drive selected.



- **FORMAT**: Formats the selected device.

- **CHECK FS**: Check the device faults selected.

- **REFRESH**: Carries out another scan of all the disks and USB peripherals connected. If the machine does not automatically read a connected USB pen drive, this function restarts detection of the peripherals and devices connected.

## [MENU](#)

## [PLAYER GM](#)

## [Front Panel](#)



# Front Panel



The main feature of the front panel is a wide colour touch screen which is the central point of the user interface system.



On the left of the display there are 4 tabs:

**-LEAD MUTE:** This key allows you to mute the melody track of the Midi file (generally this is track 4 but it may be modified if the Midi file does not comply with conventional Midi protocol) or, when an audio file is playing, it attenuates the vocal line of the file. In other words, the main voice is considerably attenuated allowing you to sing over the original songs. This device operates in real time and does not damage the song you are playing, so that you may return to the original version whenever you wish.

**Info :** *The result of the Lead Mute function on audio files depends on the type of File used in terms of mixing and*

effects (reverb, panpot etc...).

- **LYRIC** : Turns the screen which displays the **lyrics of the file** on or off.

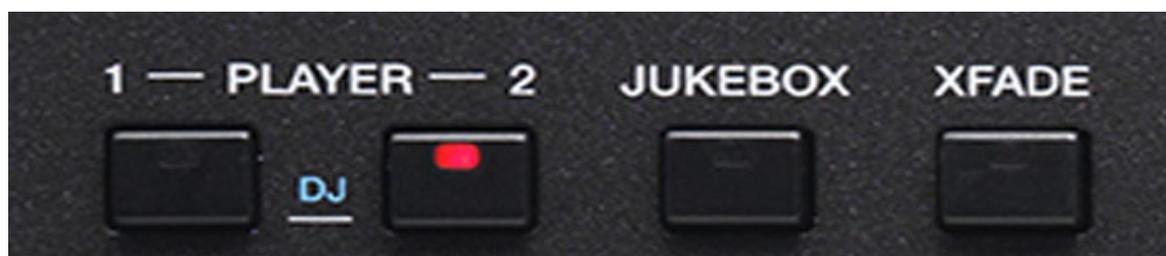
- **SEARCH**: File search key.

- **GM** : : Allows you to manage the sounds assigned to the Midi tracks of the file you have loaded.

- **PIC&MOVIE**: Opens a screen on which you can manage graphic and video files by pressing LYRICS and SEARCH tab.

- **PDF ON**: This tab enables / disables the display of PDF files on STYLE / REGISTRATION / PLAYE environments

- **PDF CTRL**: This tab allows control of the PDF files from environments such STYLE / REGISTRATION of SD90. It activates a new screen will pop up where you can control some functions related to display PDF file



- **PLAYER 1 e 2**: Use these keys to select the player you wish to use in **PLAYER** mode.

-**JUKE BOX**: This function manages songs spontaneously, just like a JUKE BOX.

-**XFADE** : Key for cross fading two musical files.

-**DJ**: Press simultaneously PLAYER 1 and PLAYER 2 tabs to access the file management on 'DJ" mode



-**PIANIST**: Extends the sound of the right hand over the full keyboard.

-**LOWEST**: Assigns the lowest note of the chord to the Bass over and above the basic This tab allows a second function on **Organ** menu

-**MANUAL**: Sets the manual Bass for the left hand..

-**SPLIT**: Set the SPLIT point on keyboard that divides the Lower part (left) from the Upper part (right).

-  - This symbol, found alongside some tabs, represents the 2nd "Edit" function . Holding down for a while will show related secondary menu EDIT related.

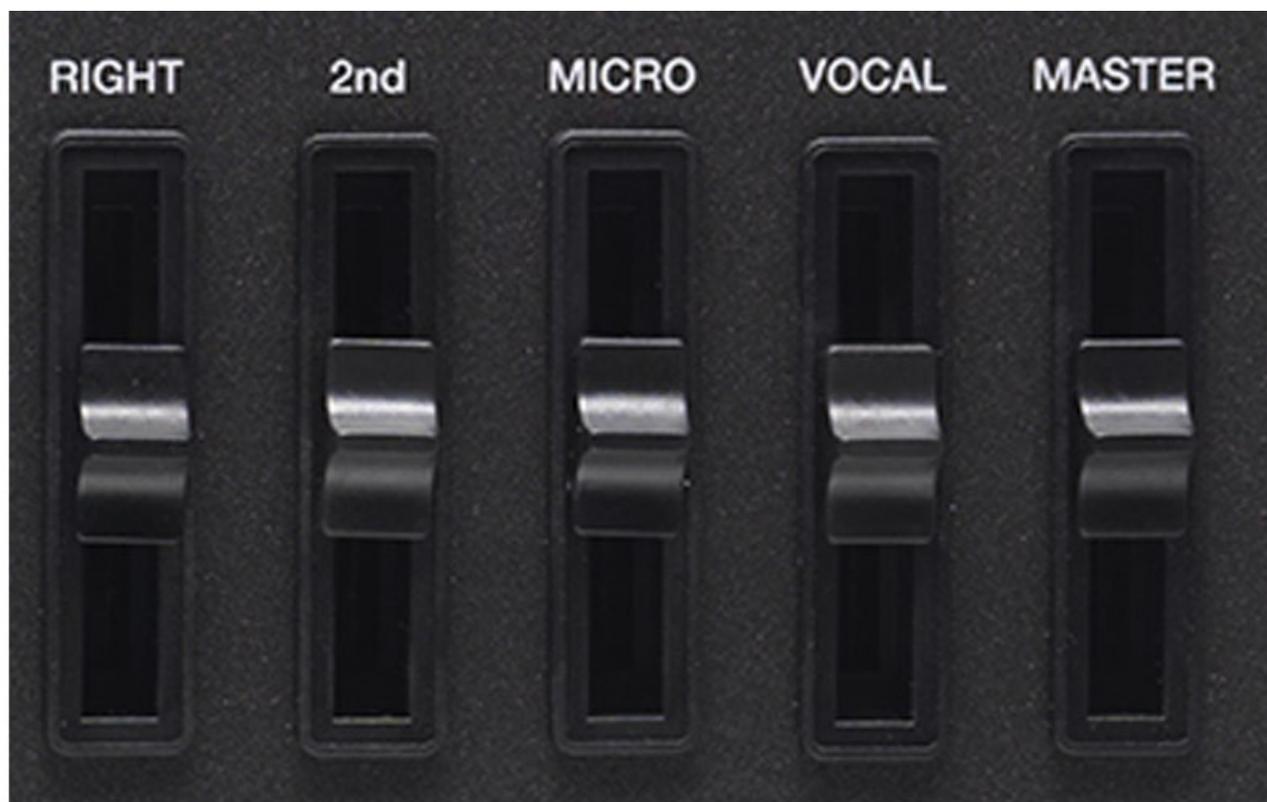


Here you can control Volume of Players , Arranger and Audio MultiTrack sections:

-**PLAYER 1/2 and STYLE**: Control the volumes of the two [PLAYER](#) and [STYLE](#) section

-**DRUM-BASS-CHORD-LOWER**: Control the volumes of these individual sections on [STYLE](#) and [LOWER](#) part of SD90.

-**AUDIO MULTITRACK**: Control volume of individual tracks available on the menu [AUDIO MULTITRACK](#)



Here you can control Volume of sections: Right, 2nd, Micro, Vocal section and master volume of SD 90 :

[RIGHT](#)

[2ND](#)

[MICRO](#)

[VOCAL](#)

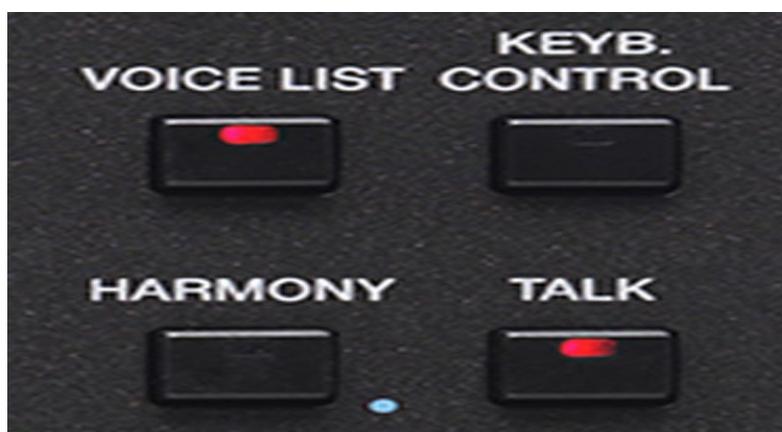
**MASTER** : General Volume of SD 90



- **TRANSP - +** : Press the keys - and + to transposes the entire keyboard in semitone steps. By pressing both tabs simultaneously SD90 allow a Pop Up menu.

- **OCTAVE - +** : By pressing the + and - buttons transposes the right part of SD90 on octave above or below. Display shows the value of OCTAVE Up or Down in use.

- **MODE**: Holding down the buttons + and - for a few moments you will display in this way [MENU](#)



- **VOICE LIST**: This command activates the VOICE LIST menu that features 32 sound locations for your "favorite" Voices.

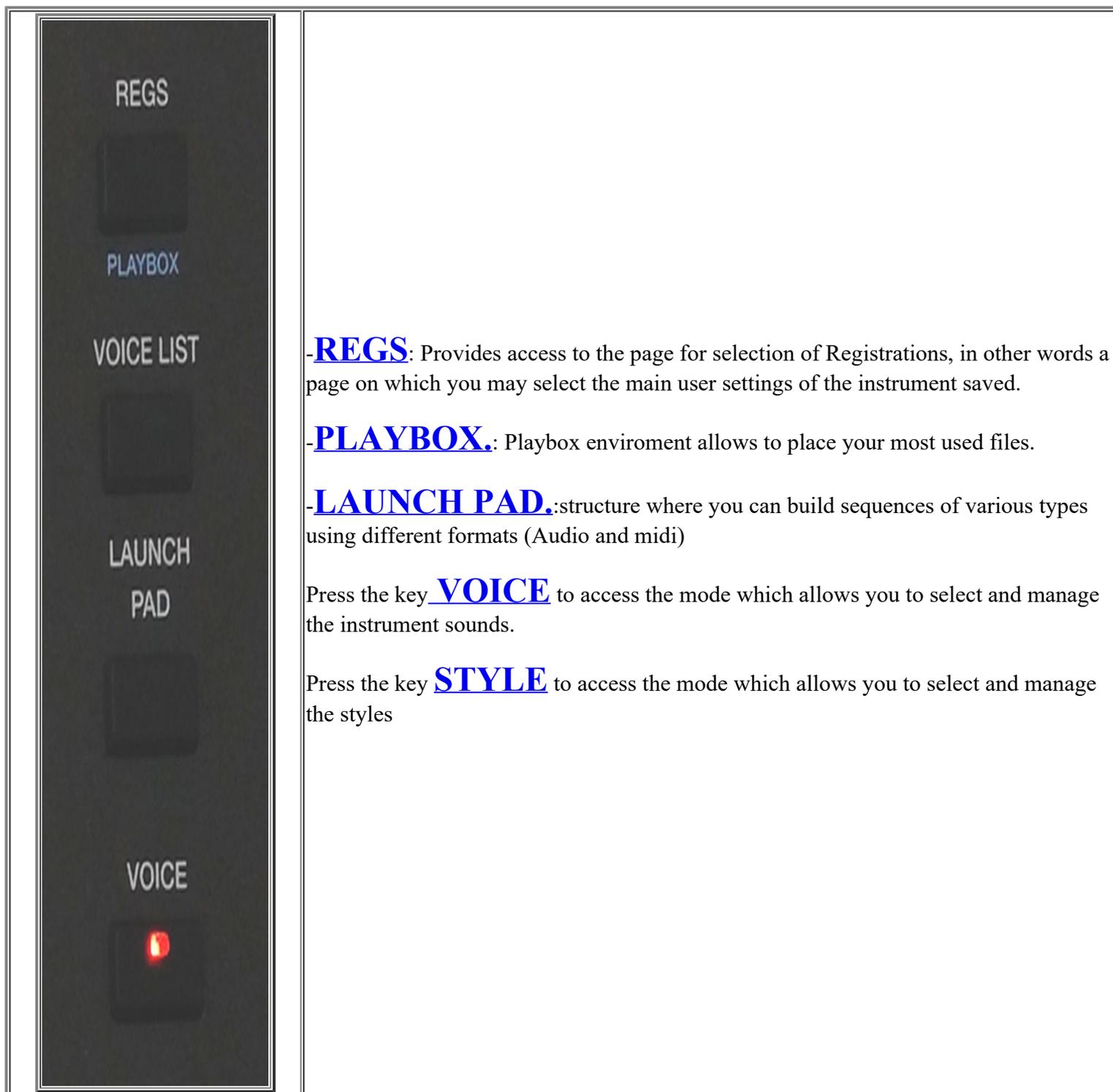
- **KEYB CONTROL** : By pressing this button DOUBLE Voice function is activated on right hand. Pressing and holding this tab for a few seconds to access on Keyb.Ctrl Pop Up functions for Portamento and Aftertouch feature

- **HARMONY** : Pressing HARMONY function is activated harmonization dedicated to VOICES available for the right hand. Press this button for a while for the selection of available presets.

- **TALK**: This button remove (or decreases depending on the selected preset) the effect from 1 Micro. Useful

function when you stop singing and if you want to speak into the microphone.

-  - This symbol, found alongside some tabs, represents the 2nd "Edit" function . Holding down for a while will show related secondary menu EDIT related.



- **REGS**: Provides access to the page for selection of Registrations, in other words a page on which you may select the main user settings of the instrument saved.

- **PLAYBOX**: Playbox environment allows to place your most used files.

- **LAUNCH PAD**: structure where you can build sequences of various types using different formats (Audio and midi)

Press the key **VOICE** to access the mode which allows you to select and manage the instrument sounds.

Press the key **STYLE** to access the mode which allows you to select and manage the styles



- **DATA/VALUE**, this knob is also called **Dial**, and allows you to select files and parameters and edit the values selected.

Next, you will find the following keys.

- **ENTER /Page** : Use to confirm different operations or enter the folders selected

- **EXIT**: Use to cancel an operation or escape from the current screen and display the previous screen, or exit a folder and back root. This button also support led of incoming activity on Midi In port.

- **SAVE**: Saves any modifications made on the instrument.

- **Midi Reset**: Pressing Exit and Save simultaneously SD90 send a Midi Reset (Reset all events and midi controller instantly).

- **MEDIA**: Displays the memory devices installed on the instrument or connected via the USB ports

- **MENU**: Displays and provides access to all the sections of the instrument



-**2nd VOICE** : The button allows you to turn on or off "on the fly" 2nd Voice on the right part. The name of the 2nd voice assigned appears in the display (bottom right side)

-**MICRO** : This button activates microphone connected to the MICRO 1. Hold down for a while to access on Edit page and presets.

-**INPUT** : Activates the signal connected to the INPUT usable for Micro, .Guitar or else. Hold down for a while to access on Edit page and presets.

-**FADE** : Button that activates FadeOut feature automatically. Is applied on SD90 MAIN audio output.



-**FILTER** : Pres this button to activate FILTER function. Hold on this tab for few seconds to access the 2nd menu/Edit dedicated.

-**DSP** : Press this tab for viewing section dedicated to effects such as reverbs, modulations and other EFX

-**DRUM SET** : Activates the Manual Drum. Moreover allows Drum Kit and Drum Mixer changing of volume and reverb on percussive sounds.

- **RECORD** : Press this button to access on Recording Audio and Midi section

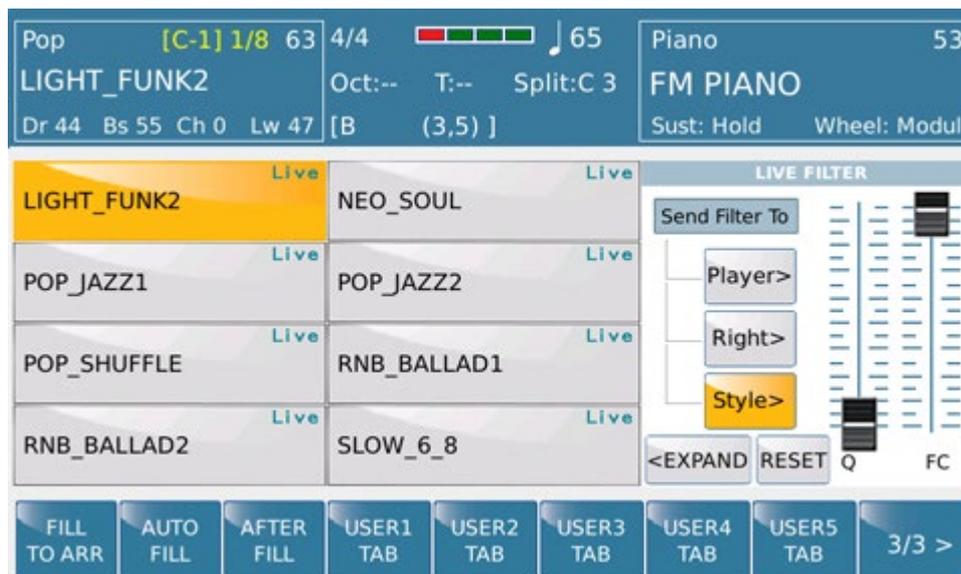


# Filter



This menu allows the management in real time by slider dedicated to some special parameters suitable on selected sections. The sliders are with their placed on the right side of the SD90 display (Q, FC ). Press the FILTER tab to enables the function (mode ON ).that appears on the main screen in the icon overlay which usually represents the VOICE.

Here's how it looks:



The sections selected are represented by virtual box that are enabled via touch screen. Of course, these sections can be enabled independently by the user.

Once section will be ( i.e we choose **RIGHT** section) User can modify in real time Voice assigned on **RIGHT** part of **SD90**.

Features available are::

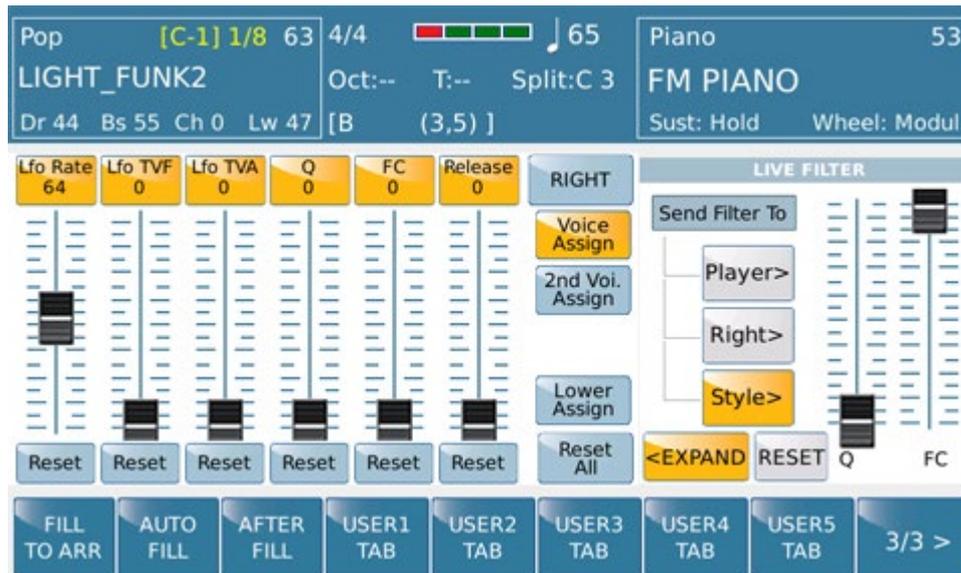
-**FC** :This slider changes the cutoff frequency of the filter (Frequency Cut Off).

-**Q** :This slider changes the resonance level of the filter.

-**PLAYER**: If you are using Wave files or MP3 (on Player 1 or 2), the two sliders **Q** and **FC**, respectively, held the function of \_\_\_\_\_ and \_\_\_\_\_

# RESONANCE CUT OFF

## Filter Expand



Press the **Filter** button to access the Live Efx menu.

Touching the [**Expand**] box opens / closes a new menu to the left of the screen with 6 sliders and a few selection boxes. Each slider acts simultaneously on all the entries of the current Preset or Style by modifying the following parameters:

Lfo Rate (modulation frequency)

Lfo TVF (filter modulation)

Lfo TVA (amplitude modulation)

Q (resonance)

FC (cutoff)

Release

Each graphic slider of the menu is associated (if selected/activated) to a physical volume slider as such:

Player1 (controls Lfo Rate slider)

Style (controls Lfo TVF slider)

Drum (controls Lfo TVA slider)

Bass (controls Q slider)

Chord (controls FC slider)

Lower (controls Release slider)

Using the boxes above each menu slider you can enable / disable the physical slider (by default they are all enabled/yellow). This is useful for de selecting an un used control or to choose to use the virtual sliders on the screen and thus maintain the physical sliders for the Arranger volume control.

The setting values of the physical slider of the control, as well the Expand condition can be saved with Custom Startup.

In the reset boxes placed under each virtual slider, it is possible to restore every single control to its default condition. With [Reset All], all the controls are restored at the same time.

Pressing the **Save** button opens a link to save the current Voice selected.

In Filter mode the modulation wheel controls the FC slider.

If the LFO rate (Slider 1) falls below the minimum value (10) it will automatically be set as Tap Lfo mode, adjusting to the BPM of the style.

*Info: FILTER tab when On / Off is switching reload last Edited parameter.*



# Registration

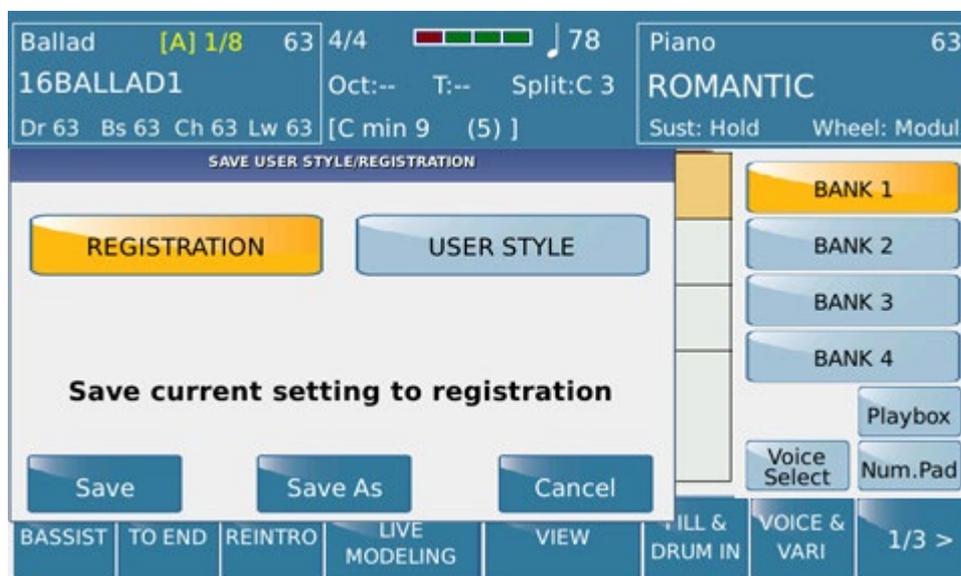
The term Registration means saving the configuration of many different parameters of the instrument. Substantially, all the main settings of the instruments, including the settings of the Styles, sounds, 2 effects microphone inputs and Midi may all be saved in a Registration. In this way you may prepare and save the configurations you need for your performance.



The instruments provides 4 banks each of which may be used to save up to 1024 Registrations. To load the banks, simply press the **REGISTR.** key on the front panel of the instrument. Select one of the 4 banks and the Registration of your choice with the Touch Screen on the following window that is displayed, or select the Numeric Pad and enter the location number of the Registration you wish to load.



To save your Registration simply press the Save key on the panel and then select **REGISTRATION** on the dialogue window displayed.



You may now save over your Registration with **SAVE**, abort by selecting **CANCEL**, or you may select **SAVE AS** to display a virtual alphanumeric keypad on which to enter a new name for your Registration. The destination location of the new Registration is assigned automatically in progressive order.

When loading a Registration you may also filter a number of its parameters so that they do not affect the other settings of the instrument. This filter is enabled only in load mode but not in save mode. To set this filter simply press the **MENU** key on the panel and then select **REGISTRATION SETUP** on the display.

In case of saving images (JPG, PNG) or PDF these files must be firstly selected than instrument will display in this way:



Example:

From **MEDIA**, select picture (or Pdf), than press **STYLE** tab. Select your own rhythm .Press **REGISTRATION** tab and save your Registration..

In case you would add audio file or midi on this registration follows this procedure :

1. Select file:



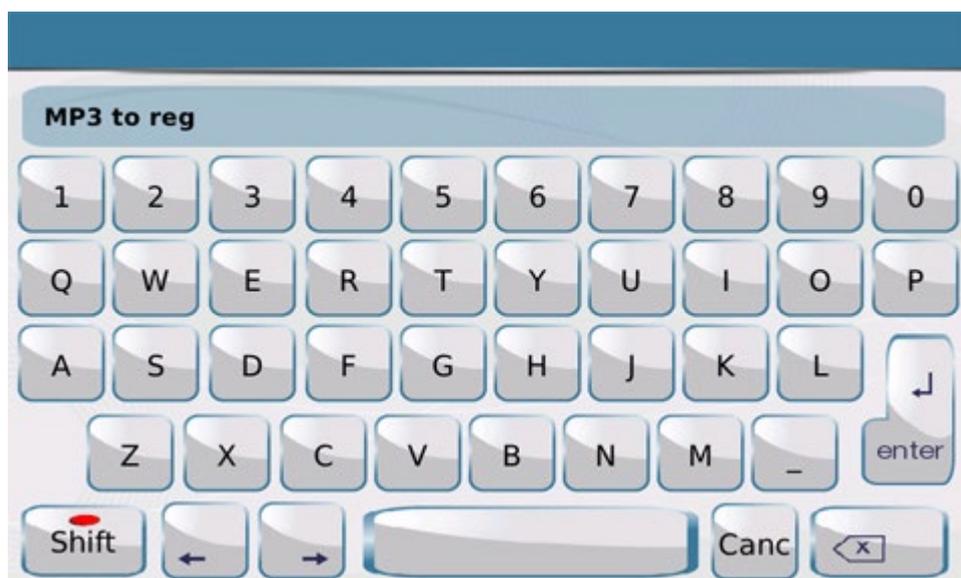
2. Press **SAVE** than select **REGISTRATION**.



3. Confirm and save with a name (**Save As**).



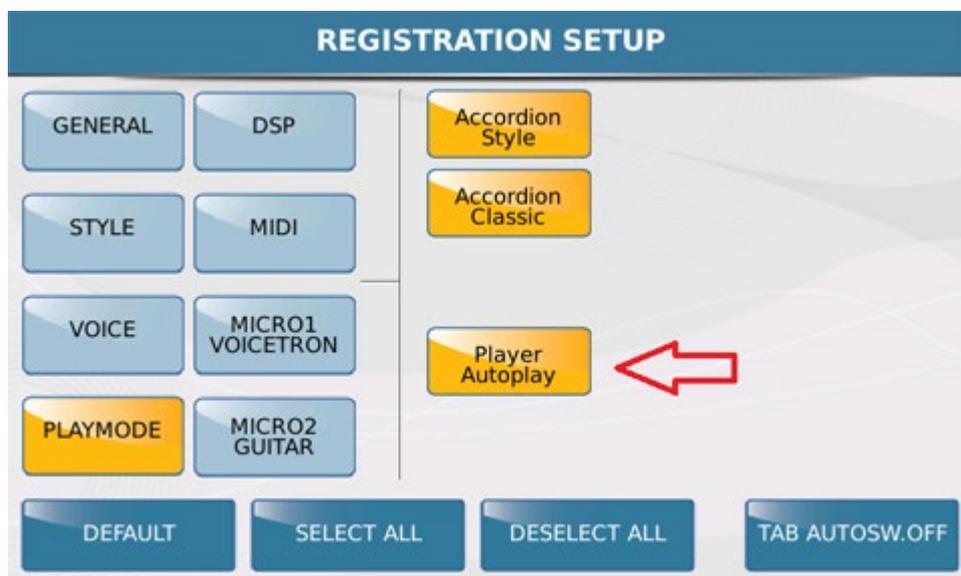
4. For example "MP3 to reg". Complete operation by pressing **ENTER**



5. Recall this file from **REGISTRATION** menu.



**Info:** In order to play immediately a file set on Registration menu function "Player Autoplay" from **REGS.SET UP/PLAY MODE**.



## Registration with Style and Text

We can create a Registration containing a style and a text document (.Txt)

First, we need to have a TXT (can contain lyric or any text information) inside the SD 9 memory, ( I.e.. prova.txt)



Now select the style we want to store in the Registration with the desired txt.(Es Swing Pop).



Press STYLE again to enter on MEDIA mode and choose the Txt you want



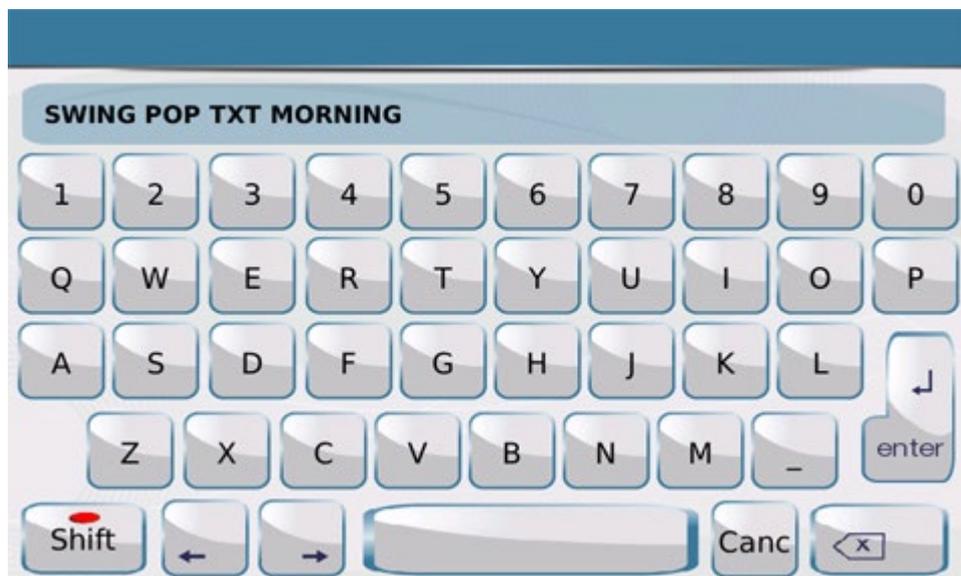
Once selected, press ENTER to display the TXT.



At this point, press the REGISTRATION button (the text will be hidden). Press the LYRICS button to display the TXT again. Press the SAVE tab



Then type in a desired title

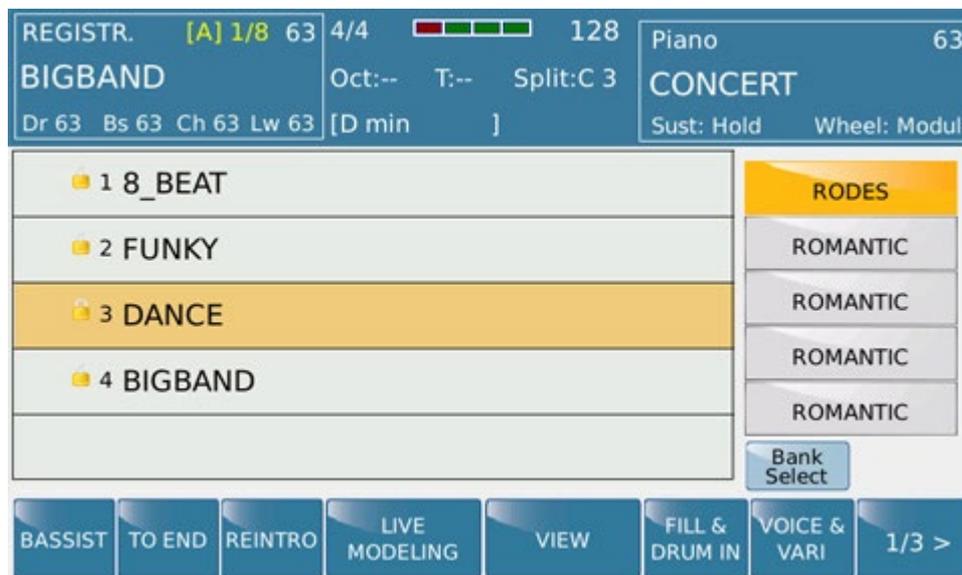


and STORE it as a New REGISTRATION.



## Voices on Registration

In the Registration environment, pressing the new [Voice Select] button display will show 5 boxes.



In the first box there is the current selected Voice; in the other 4 boxes you can assign voices (by holding down the box as it already happens for the Voice & Vari function.)  
 Status of these 5 Voices can be saved in the Registration itself.

## Playbox

Playbox environment allows the user to have access from the Registration menu on 4 Folders where he can recall the player files (Midi Mp3 wave) most used in the performance. This will avoid going out and entering different Menus (such as Player and Registration) and having your most important files at your fingertips  
 Pressing the PLAYBOX tab the display shows the following:

:



As you will notice in the folder PLAYBOX 1 we find files that we have previously imported via the disk menu where is the folder PLAYBOX (root) that contains the 4 folders Playbox 1,2,3,4



Through the menu [DISK](#) you can copy your files (or import them from another device) and allocate them in the 4 folders Playbox 1,2,3,4 available.

## [Front Panel](#)



## 4 Voice Setting

With the virtual **VOICE & VARI** key enabled, simply touch one of the icons of the 4 sounds or layers assigned to the Upper section of the keyboard to open the following screen.



The sound categories are displayed on the top right hand side of the screen while the sounds available for the category selected are displayed on the top left hand side of the screen. Select as usual by first selecting the category and then the sound to assign to the layer selected. Press **EXIT** to return to the previous screen.

## Arranger Setting

### STYLE



# Arranger Setting

This page is dedicated to the Arranger settings. Any modification in this mode may be saved in a **User Style** or in a **Registration** (various settings which include the modified Style as well as any other settings made on the instrument and which may be retrieved by pressing the relevant key on the panel), by pressing **SAVE** on the right hand side of the Front Panel. The User Style is a copy of the original Style with the settings modified by the user. It may be saved with the name of the original Style or may be saved with another name selected by the user by selecting **SAVE AS** on the save screen. Even if you decide to use the same name, the file will be saved in the User Styles section so that the original file supplied by KETRON is not deleted.

Pressing the icon **Voice & Vari** you can access the following menu:



The **4 tones** assigned to the Lead (Upper) section are displayed at the top of the screen. By default when you load the Style the sound on the keyboard is the first of the 4, but it is possible to quickly change this by selecting the other 3 icons of the top row. Each Style has already been saved by KETRON with these 4 sounds for quick loading into the Lead section, but you may save the Style with 4 different sounds with respect to those saved by KETRON.

To do this, press the icon for a few seconds of the selected sound to enter the menu **VOICE FAMILY**

The **4 tones** shown under the 4 are the sounds of the 3 **Variations** that correspond to **CHORDS 3,4,5, Live Guitar**, showing the icon of the instrument used for each. The tone assigned to these tracks cannot be modified on this screen, but they may however be muted or enabled with just a touch of your finger (highlighted in red). All the sounds assigned to the tracks of the Style and to the left hand may be modified by selecting **VIEW**.

- **VOICE TO ABCD**: This function assigns each of the 4 sounds shown at the top of the Upper section (or Lead) of the keyboard according to the 4 arrangements selected, namely it assigns one of the 4 sounds to the right hand when you select arrangement A, another when you select arrangement B, a third when you select arrangement C and the remaining when you select arrangement D. You may select each of the 4 sounds and decide the correlation between these 4 sounds and the arrangement. If the key Voice to ABCD has not been selected, the change of arrangement does not change the sound so that the sound assigned to the right hand will remain unchanged, until you decide to change it manually, by touching one of the 4 tones shown on the display.

- **BASSIST**: Allows you to play free basses on a chord played with the right hand. For example, when you want to play a Bass solo.

- **TO END:** Performs END 1 immediately without waiting whole measures of the arranger (A / B / C / D /) in use.

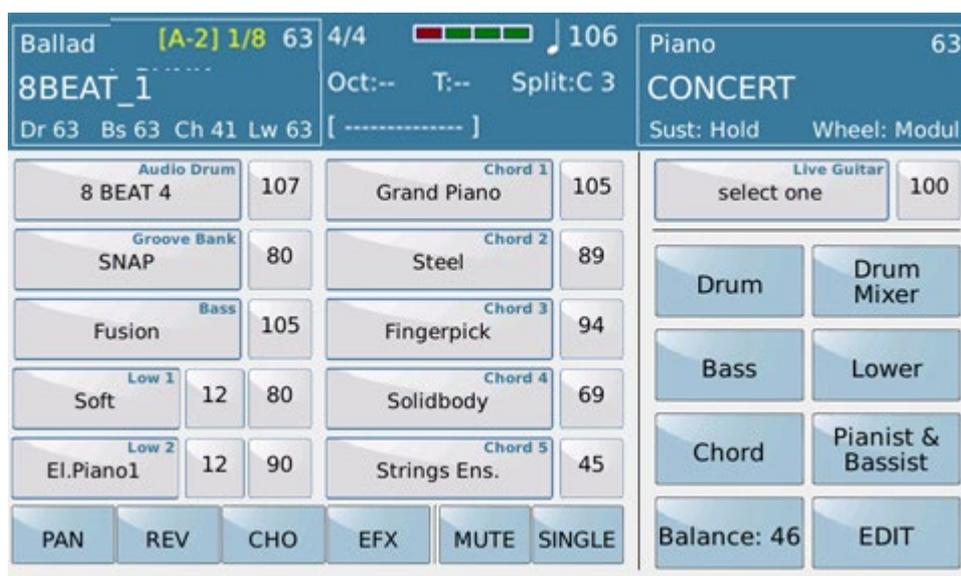
- **REINTRO:** When Style is running, with the command REINTRO enabled, if you press one of three END buttons SD90 run again the intro instead of going to the END. If the REINTRO button is active as well K.Stop , pressing one of the Intro / Ending SD90 performs Ending instead of Intro

**LIVE MODELING:** In this menu, you can rearrange your own Style inserting new pattern made available on SD90. Choose from hundreds of templates already programmed by KETRON on different sections such Drum, Bass, Chord. This environment is explained with more detail on [Live Modeling](#) page

- **FILL & DRUM IN :** This feature allows you to mute "on fly" all DRUM part while you play with ARRANGER parts and automatically can reintroduce the structure DRUM simply by pressing the FILL button (or BREAK) at any time

- **VIEW:** Shows the overall status of the Style ie all tracks of the Arranger and the Lower section of the keyboard. This environment allows to make important changes on Arranger setting .

here is the available features .:



- **LIVE GUITAR:** Allows you to set the Live Guitar from available database.

- **DRUM:** Allows you to set the parameters of the Drum section.

- **DRUM MIXER:** Opens a mixer for the drum where it is possible to enable or mute the individual percussion instruments of the drum and adjust the volume and reverb of each.

- **BASS:** Opens the page on which to regulate the Bass track.

- **LOWER:** Opens the page to adjust the Lower track, namely the section of the keyboard on the left of the split point.

- **4 VOICE SET:** Allows you to modify the 4 Voices of the Upper section.

- **CHORD**: Opens the page to adjust the harmonic tracks of the automatic accompaniment.
- **PIANIST & BASSIST**: Provides access to a page on which you may set the control mode of Arranger via the keyboard.
- **LOWER**: Opens the page to adjust the Lower track, namely the section of the keyboard on the left of the split point.
- **BALANCE**: Adjusts the volume of the entire Arrangement selected or which mean Balance volume with the VOICE section
- **EDIT**: Open EDIT page of Arrange Section
- **DRUM BOOST**: Apply Boost (increase in volume) to the Drum part.
- **VOICE & VARI**: This tab allows you to access (or exit) from the selection menu sounds (Voice and Variation) of Arranger Section.
- **1/3**: This command allows you to access the second page (2 of 3) of the Arranger section that looks like this:



Are present in this screen all commands to direct access to the functions of **Fill1, Fill2, Fill3, Fill4, Break1, Break2, Break3, Break4**

- **2/3**: This tab allows you to enter the third page of the Arranger section that looks like this:

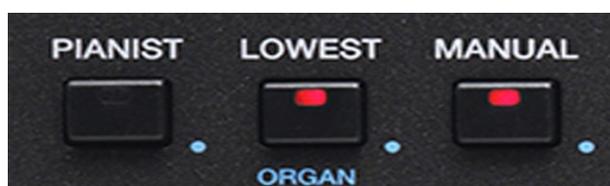


We find these new features:

- **FILL TO ARR**: When the parameter is selected each time you turn on the Fill In this causes the automatic switch on the next Arrange part .
- **AUTO FILL**: When the parameter is selected, the DRUMS automatically runs a Fill In when you switch from one to another Arranger part.
- **AFTER FILL** : When the parameter is selected fill is activated by pressing hardly (Aftertouch) on the lower part of keyboard
- **USER TAB 1/2/3/4/5** : These commands allow User to program their favorite feature selectable from a Pop Up menu .Press User Tab to program and choose the function from the pop up menu. Then press Exit to confirm this choice This information can be saved in the [STARTUP](#) menu



We also find other commands you can use in Arranger Style available directly from the panel:



- **PIANIST**: Extends the sound of the right hand over the full keyboard. In other words, the SPLIT for the Arranger is disabled. If the Arranger has been enabled, the chords are recognised over the full keyboard.
- **LOWEST**: Assigns the lowest note of the chord to the Bass over and above the basic. In this way the Bass will play in inversion.
- **MANUAL** : Sets the Manual Bass for the left hand.
- **ORGAN** : Pressing this button for a few seconds, you access the control pedals menu and other functions used on vintage organ style. On [PLAY MODE](#) find detailed features of these functions available.



## [STYLE](#)



# Play Mode



Here you may use the Arranger in piano mode, **PIANIST (ON)** in other words eliminating the split and extending the Upper section over the full keyboard (“Full Upper” mode). The chord will therefore not be played only on the Left section but over the full keyboard.

On this window you may set the Arranger with the manual Bass in the Lower **BASSIST(ON)** section.

The two modes, Bassist/Pianist, may only be used one at a time. These two modes will now be described in more detail:

## PIANIST

- **AUTO**: In this mode, simply play 3 or more notes on the keyboard so that the chord is recognised and then play the melody with one, or at the most two notes, without changing the tone of the Arranger.
- **STANDARD**: In this mode you freeze the chord recognised with the Sustain Pedal so as to play on the keyboard without altering the tone of the Arranger.
- **FREE VOICE**: This tab ( when in OFF) allows " to force" Grand Piano Voice whenever the Tab Pianist is pressed. Otherwise (Mode ON) Voice previously selected still remain even in mode PIANIST.
- **SUSTAIN PEDAL**: When this parameter is enabled (ON), the Sustain Pedal control on Pianist is enabled when this is inserted.

## BASSIST

The Bassist function allows you to play the Manual Bass on the left section of the keyboard while controlling the Arranger and song line at the same time on the right section.

This function has 2 playing modes: **EASY** and **EXPERT**. To display the 2 Modes, simply press **EDIT** and insert **PIANIST & BASSIST**.

- **EASY**: This is the default mode of BASSIST. When you press BASSIST, the Manual Bass is automatically inserted on the left while chords are recognised by interpreting the note played by the Bass and the notes played with the right hand.

Simply play a chord of at least 3 notes on the right section so that the instrument memorizes the new tone and plays the corresponding automatic accompaniment.

In this mode you may also play a song line of no more than 2 notes played together since 3 notes are automatically recognised as a new chord.

- **EXPERT**: Expert mode is very similar to Easy mode, with the difference that when a certain tone is recognised, if you press the SUSTAIN PEDAL this tone is memorised over and above the number of notes you play with the right hand.

Using Expert Mode takes a little practice before you can synchronise the pressure on the Sustain Pedal with the chord change, but it is well worth it since it allows you great freedom when playing the Song.

A new tone may be set whenever you release the Sustain Pedal.

- **SUSTAIN PEDAL**: As in Pianist Mode, even in Bassist mode the Sustain Pedal option allows you to enable/disable Sustain on the Song voices when you press the pedal.

## [Arranger Setting](#)

### [STYLE](#)



# Juke Box

Juke Box allows you to manage the standard Player in a different way to play the files. By default the files in Playlist 1 are displayed but other Playlists may be selected.



The same thing happens when you select **MY FOLDER** on the display and select a folder. All the songs in the folder will be loaded in the pad. You may scroll the files in groups of 15 with the Dial.



On this window you may also use a number of sound effects by selecting the **SFX** key which you will find on the right at the bottom of the display. The following page opens where each tab enables the sound effect indicated.



## [PLAYER GM](#)

### [Front Panel](#)



# DJ

By pressing at the same time Player 1 and Palyer 2 button



you can enables the **DJ** function that allows an alternative way of playing the songs.



The 2 players are shown as 2 record players. The one selected is highlighted in red.

Each player has a pair of level indicators and the keys described below:

- **CUE**: Is a sort of bookmark. Once it has been set at any point of a song, when it is pressed again the song starts from that point. It is compatible with Wave files and Midifile but not with Mp3 files. When an Mp3 file is played the key is disabled.
- **PFL**: Playback in headphones. The PFL is selected automatically taking the corresponding slider to 0.
- **[ ]>** : Pause.

The directory for selection of files and folders is displayed at the centre of the screen. The functions for the player selected are displayed at the bottom:

- **BACK SPIN**: Ends reproduction by increasing speed and tone, giving an effect similar to gradually increasing the revs of the record player.
- **SYNC**: Synchronises the two players. If you are playing a midifile on turntable A and you prepare another Midifile on turntable B, when you press SYNC the second Midifile will start in “downbeat”. If you also add the Time Lock, the second player keeps the BPM speed of the first. When the second file is an audio file, it will start from the beginning of the next measure of the Midifile. If however the first file is an audio file, the instrument cannot read the rhythm of the measure and the TAP window (see below) will open with a virtual pad to start the

second song which you can do by tapping the virtual pad 4 times. In this way, by beating 4 taps in time with the first file, the second file will be synchronised with the first.

- **TAP**: Opens a pad at the centre to synchronise the time with the “tapping” of your fingers



The Tap-Tempo function may be used only with files (Audio and Midi) whose original BPM is known; in the case of midifiles this is always known but in the case of audio files (Wave or Mp3) you must indicate the BPM because the instrument does not read it. The BPM of an Audio file must be indicated in the filename: if, for example, you have a song called "name.mp3" at 120 BPM you should rename it "name@120.mp3". In this way the instrument will have the reference BPM and takes it to the Tap Tempo function.

- **FX PAD**: This works only with audio files and opens a small box with the following effects: Pitch, Cutoff and Filter Resonance, and finally the tempo. These effects may be regulated with the corresponding sliders on the instrument panel.



These effects may be regulated with the corresponding sliders on the instrument panel.



- **RESET**: Restores the default conditions of the file, cancelling the modifications made on this page.
- **BRAKE**: Ends reproduction by suddenly decreasing the speed and tone of the song.

## [PLAYER GM](#)

### [Front Panel](#)



# Footswitch



Many functions of the SD90 may be assigned to optional footswitch controls FS6 (6 switches) or FS13 (13 switches).

These controls offer guitarists, keyboard and accordion players incredible advantages. To assign a control to a footswitch simply select the footswitch on the screen. A list of functions will be displayed that may be selected directly on the screen or scrolled and selected with the Dial.

Press **EXIT** to return to the main Footswitch screen.

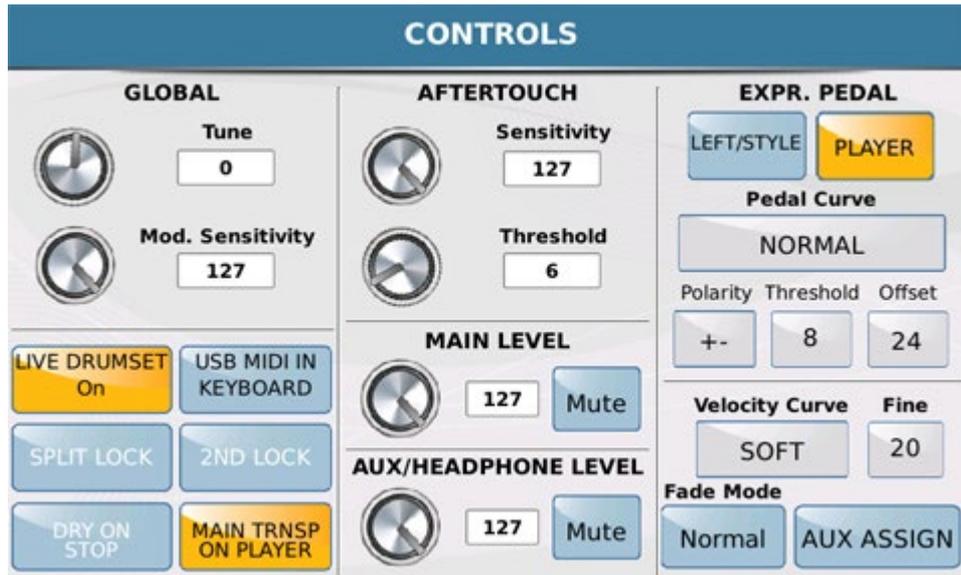
The user has 4 sets that may be freely configured.

The **DEFAULT** key loads the Set selected with the factory settings. After assigning the functions to the footswitches, simply press the **SAVE** key on the panel and confirm by pressing Save on the Pop up menu.

[MENU](#)



# Controls



- **GLOBAL**: Allows you to tune the SD90 and modify Modulation sensitivity. To modify the tone, simply touch the box **TUNE** or the corresponding virtual knob and change the numeric value with the Dial. In the same way, to change modulation sensitivity, touch the box **MOD. SENSITIVITY** or the corresponding virtual knob and change the numeric value with the Dial.

- **AFTERTOUCH**: This is a parameter that many keyboards have today and allows you to modify a sound by pressing a key on keyboard continuously even after pressing the note. The effect applied to the Aftertouch may be a modulation, opening of a filter and even the volume. For example, by applying the volume to Aftertouch you can simulate the sustained effect of a string or wind instrument which may increase the intensity of a note even after the attack. On this page you may set the sensitivity of the Aftertouch response and the key pressure threshold under which the Aftertouch effect must not respond. Here again, the modifications are introduced by selecting the box **SENSITIVITY** and **THRESHOLD** or the corresponding virtual knobs and modifying the value with the Dial.

- **EXPR.PEDAL**: Enables the Expression pedal for volume control of Left and Style section. The response curve of the volume pedal may be set by selecting the box **PEDAL CURVE** and using the Dial.

- **POLARITY**: Allows you to select the polarity of the pedal controller to be used.(+ / - )

- **THRESHOLD**: Adjusts the opening threshold of the pedal controller to be used.

- **OFFSET**: Adjust minimum range (0/32) of pedal controller set value.

- **VELOCITY CURVE**: Sets the keyboard dynamic response of SD90 (Soft, Medium, Hard, Fixed).

- **FIXED**: Sets, using the dial, Fixed dynamic level on

- **AUX ASSIGN**: Allows you to assign to **HEADPHONE / SEPARATE OUT** one of the following sections of the SD90 (RIGHT, DRUM, BASS). Internal speakers are automatically excluded when this out is connected.

- **LIVE DRUM SET:** This function creates dynamism and realism in drum tracks by modifying a number of variables of the percussion instruments during performance.

**USB MIDI IN KEYBOARD:** On MENU → CONTROLS, the USB MIDI IN KEYBOARD or GM selection function is inserted. If you connect a midi usb device (for example a midi keyboard), this function allows you to assign the receiving port to the MIDI KEYBOARD or to the MIDI GM (can be saved in CUSTOM STARTUP).

- **SPLIT LOCK:** Allows to "lock" the Split on Player Mode.

- **2ND LOCK:** Allows to "lock" the 2nd Voice on VOICE Mode.

- **DRY ON STOP:** Apply ByPass effect (DRY) on the microphone when the Player is on STOP. With this utility, the singer will not have to turn off the effect manually in the case of any presentations, comments etc etc.

- **MAIN TRNSP ON PLAYER:** With the selected function (yellow icon) using the transpose applies transposition on Voice / Arranger Section which will be shared with the PLAYER section. With the unchecked (blue) selection Transposer will operate only on the Voice / Arranger Section without affecting the PLAYER Section

- **MAIN LEVEL:** This is the main volume of the instrument that may be set on this menu either by using the relevant box or the corresponding virtual knob using the Dial. The main output may also be muted.

- **AUX / HEADPHONE LEVEL:** On this menu you may adjust the volume of the headphones or Mute them, following the steps described for the Main Level.

- **FADE:** Inserted MENU → CONTROLS → Fade Mode function that sets different fading speeds, Normal, Slow1, Slow2, Fast1, Fast2. Can be saved on Custom start up.

## [MENU](#)



# Drum Mixer



The display shows the 10 icons of the percussion instruments. These may be muted individually by tapping the icon. A box for volume and reverb adjustments is displayed next to each icon. To do this, simply tap the box and change the value with the Dial.

## [Arranger Setting](#)

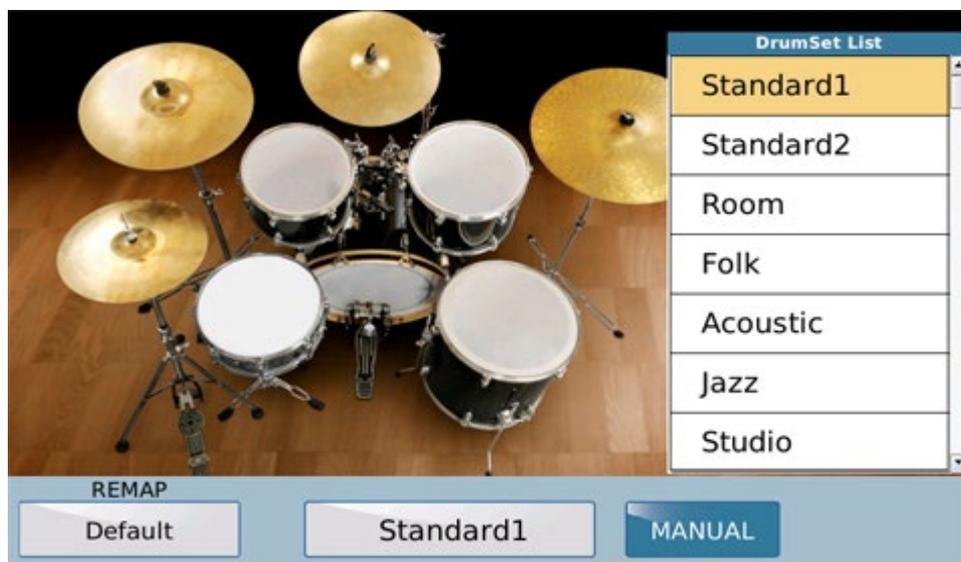


# Drum Set



On this screen, the display shows a Drum Set together with another 3 percussion instruments (Clap, Cowbell, Tambourine) which may be played directly from the Touch Screen display. The snare drum and cymbal on the right have two sensitive points which you can touch to reproduce two different sounds: the snare drum may be played at the centre or on the circle, and the plate on the outside or on the bell.

After selecting a rhythm instrument, for example a Tom, you can modify it by touching the box **REMAP** and selecting a Tom from the list that is displayed on the right. You may scroll down the list with the Dial.



When you select the percussion instrument, this will replace the previous instrument.

On the right of the **REMAP** box which displays the name of the percussion instrument there is a box indicating the original Drum Set. To change it simply select the box.



The list displayed on the right is similar to the previous list and you can scroll it in exactly the same way; the only difference is that instead of the list of percussion instruments in the same category such as cymbals, toms, snare drums etc., a list of the Drum Kits is displayed. Press **SAVE** on the panel to save the modifications in the current User Style. If you are on GM menu to save the modifications in the Midifile display will show MIXER Tab as on picture below:

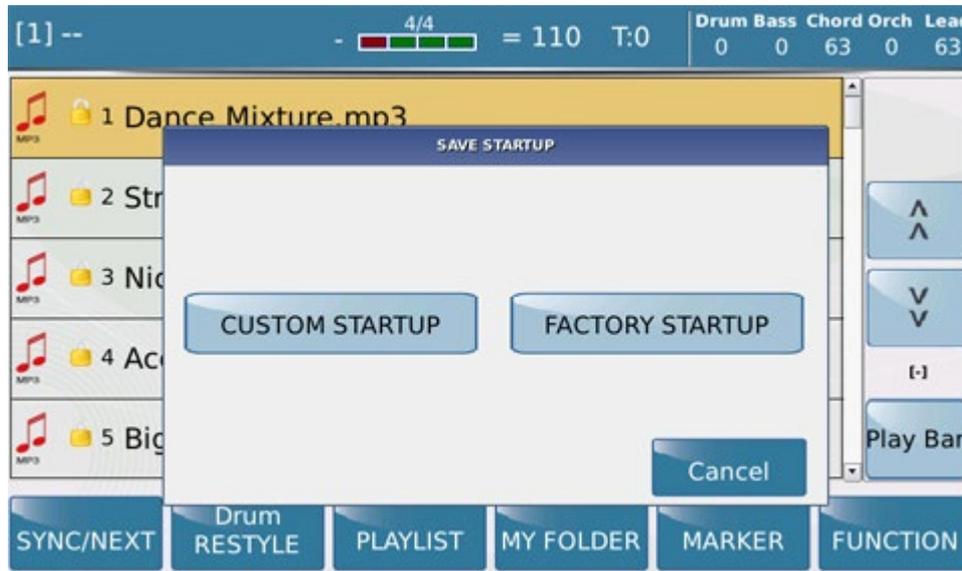


## [Front Panel](#)



# Save

Press the **SAVE** key in **Song Play** mode to open this window



with the following save options.

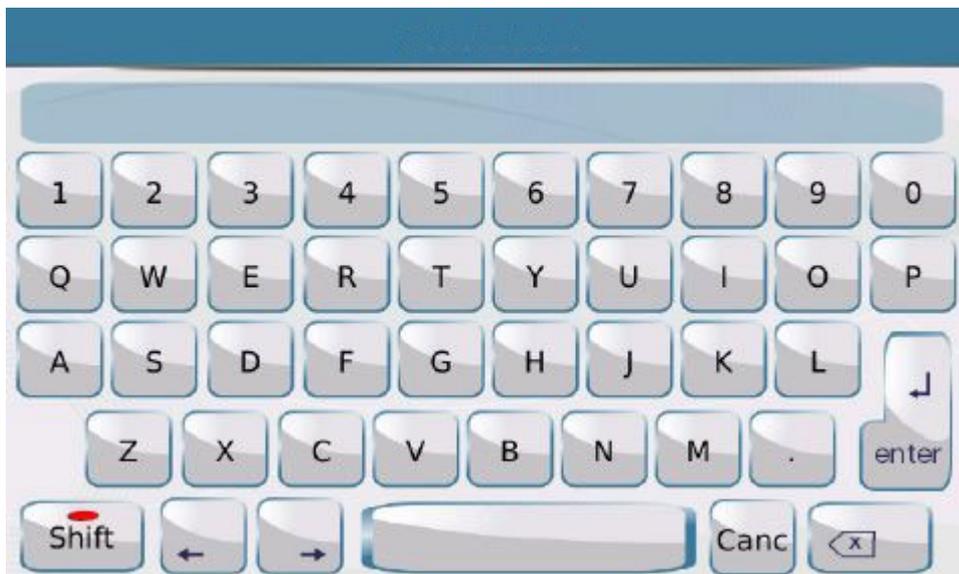
- **CUSTOM STARTUP**: Saves customised settings so that they are loaded when you start up your instrument.
- **FACTORY STARTUP**: When you start up your instrument, this option overrides user modifications and reloads the factory settings
- **CANCEL**: To abort and return to the previous window.

When you press the **SAVE** key in **Style** mode, the following window is displayed:



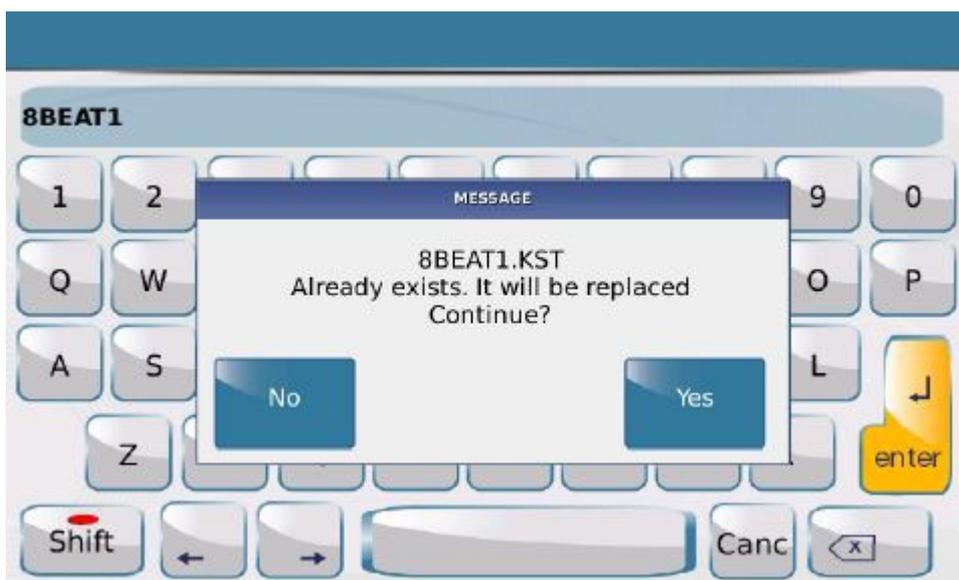
On this page you may save the modifications made to a Registration or User Style. To save the modifications with the current name of the Style or Registration press **SAVE**, or enter a new name with **SAVE AS**: in this case

an virtual alphanumeric keypad is displayed on which you may enter the new file name.



After entering the new name simply press **ENTER** on the alphanumeric keypad to save.

If you press **ENTER** without rewriting the name, the User Style or Registration will keep the current name and you will write over the file. This is why the following message is displayed:



This message warns you that if you confirm by pressing **YES** the Registration or User Style will be overwritten and the current User Style will be lost. The original factory styles can however not be deleted and will therefore always be available. When you modify an original factory Style or save it with the same name, it will in any case be saved in User Style mode without deleting the original Style.

In some menus like **Footswitch**, **Accordion** etc, the **SAVE** key allows you to save specific functions on the corresponding menu. The save procedures are described in the section of this Manual relevant to the menu in question.

## [Front Panel](#)

# PLAYER GM



# DSP

The **DSP** key on the Front Panel on the right of the display, opens a window that displays the effects available on your SD90.



The display shows the 8 effects from top to bottom, which may be enabled with the virtual key **ON/OFF**.

- **RIGHT REVERB**: This is the reverb of the instrument and acts only on VOICE. When you click on the rectangular box, a Pop up window opens next to it displaying 8 types of reverbs and delays which you can then select on the Touch Screen.

- **LEFT/GM REVERB**: This is the general reverb of the instrument and acts on the GMs, Arranger. When you click on the rectangular box, a Pop up window opens next to it displaying 8 types of reverbs and delays which you can then select on the Touch Screen.

- **TIME**: Allows custom Reverb Time adjustment on the Right or Left / GM (can be stored with Custom Startup)



Further to the right, next to the rectangular box you will find the virtual potentiometer which you can use to set the reverb value for the whole instrument.



Follow these steps to set the effect value:

- 1) touch the virtual potentiometer to select
- 2) turn the virtual potentiometer with the Dial.

- **CHORUS** : This is the general Chorus of the instrument and works on the GMs, Arranger and Voice. it also includes Flanger , Tremolo and Phaser effects. When you click on the rectangular box next to it, a Pop up window opens with the 8 effects that may be enabled on the Touch Screen.



Here again you will find the virtual knob to set the effect value as indicated previously.

- **INS EFX1**: This is an **Insert** effect that works on the MIC2/Guitar input and the Upper or Right section of the keyboard. With respect to the other effect, this effect has high definition distortion. The corresponding rectangular box opens a drop-down menu in which you can select one of the different effects displayed. Next to the virtual knob used to adjust the effect value, you will also find the key **View** which displays a virtual effects footswitch (similar to the style of those for the guitar). On this you can customise the effect preset, enabling and setting the different effect pedals.

After configuring the virtual “footswitch”, namely all the effects on this screen, you can save this effects setup in a customised User preset.

To do this, simply press the key **SAVE** on the panel. The save screen now opens on which you can assign a name and target location to the preset.

- **INS EFX2**: The INS EFX 2 is the same as effect INS EFX1 with the only difference that it does not have a different distorting module. It works on the GM and the Arranger.

- **EQUALIZER** : Main parameter equalizer. This has 2 bands that work on the output data as a global master effect.



The rectangular box displays the equalisation presets available while the key **View** opens a screen on which you may adjust the equalizer.



On the left you will find a box on which you may adjust the Lows, where the upper knob is used to set the level and the lower knob is used to set the frequency at which the level is applied. The steps to follow to make this adjustment are the same: select the knob on the display and turn the Dial left or right.

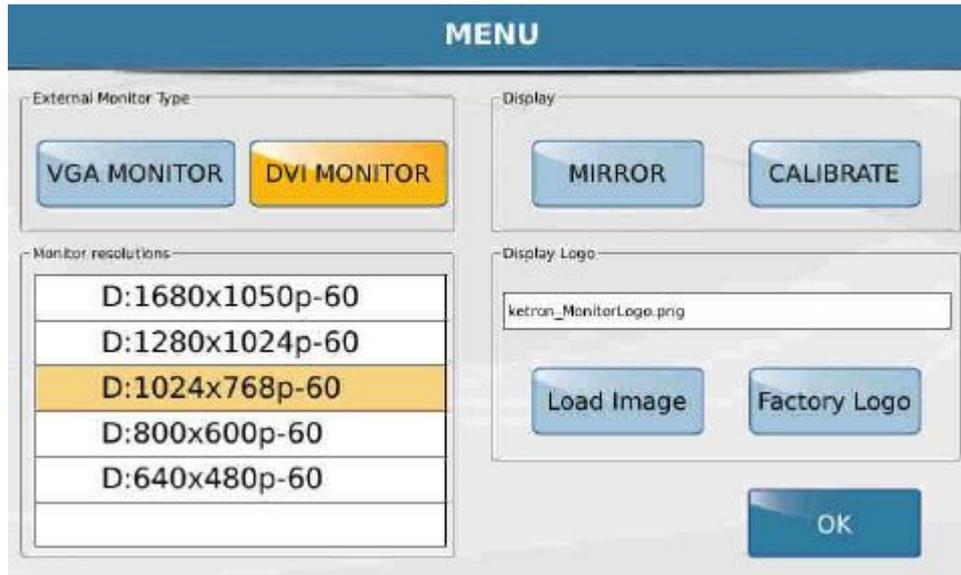
On the right you will find a box to adjust the His that is exactly the same as that described for the Lows: at the top you will find the knob to adjust the level and at the bottom the knob to adjust the frequency. To adjust follow the steps described previously for the Lows.

- **ENHANCER:** It get new EQ featuring with middle or bass frequency boost.

The modifications made to the equalizer may be saved only as **Custom Startup**, namely as a setting that will be present when you switch on the instrument.



# Video



The **VGA MONITOR** and **DVI MONITOR** keys at the top of the display allow you to select the monitor to connect to the instrument. If you change from VGA to DVI or vice versa remember that the system must be rebooted to introduce the change; a dialogue box will therefore appear at the centre of the display asking you if you wish to reboot the system (any changes that have not been saved will be lost if you switch off the instrument).

Lower down on the display you will find a table on which you may select the resolution of the external video. On the right you may enable the **MIRROR** function that projects the display on the external screen, or disable it in order to display only the song text.

- **CALIBRATE** : Opens a window on which you may calibrate the Touch Screen display. Here again you should reboot the system. If you select **Yes** the system will be switched off. Before the system switches off completely, a cross will appear in the upper left hand corner of the display. Whenever you touch the cross it moves to the other corners of the display and finally positions itself at the centre of the black display. At this point if you touch the cross again, the system starts up and the display will recognise the touch of your fingers.

**Info:** *You should calibrate the instrument as described above whenever you update your system or if the display no longer responds promptly when you touch it.*

- **LOAD IMAGE**: Press this function to load a customised image on the instrument which you may use as a preset background of the display.

- **FACTORY LOGO**: This function sets the factory logo as background of the display.

## [MENU](#)



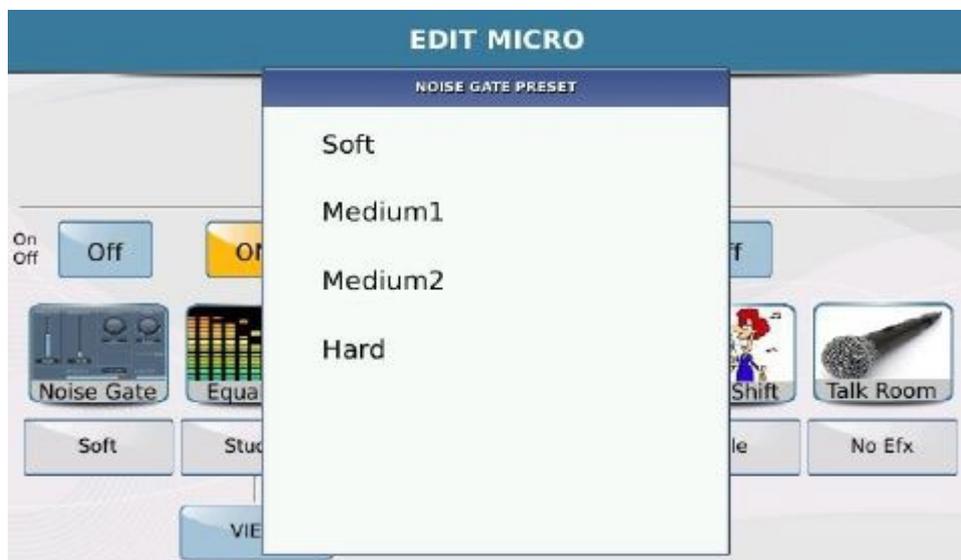
# Edit Micro



The microphone preset, whose name is displayed in the top box, consists of a number of effects that may be enabled or disabled using the **ON/ OFF** box above the corresponding image.

Under each effect you will find a box with the name of the preset used by each effect. Simply touch the box to open a Pop up window with the different presets that may be selected on the Touch Screen. To go back to the EDIT MICRO page simply press **EXIT** on the panel.

- **NOISE GATE** has 4 presets:



- **EQUALIZER** : The parameter equalizer for the Micro has 4 bands, 4 presets and 2 user presets that may be saved by the user.



The equalizer has an additional edit level, **VIEW**, which opens a window in which you can modify the 4 bands, Low, Mid-Low, Mid Hi and Hi, and select the frequency and gain for each of these. Touch the virtual knob corresponding to the parameter you wish to modify and use the Dial to modify the value. If a User preset has been selected as the initial preset, you can save the modifications by overwriting the modified preset over itself. Simply press **SAVE** on the panel and confirm with **YES**.



- **COMPRESSOR**: The Compressor/Limiter has 4 presets for the Compressor and 2 for the Limiter.



- **ECHO** : The effect Echo, also known as Delay, has 6 presets:



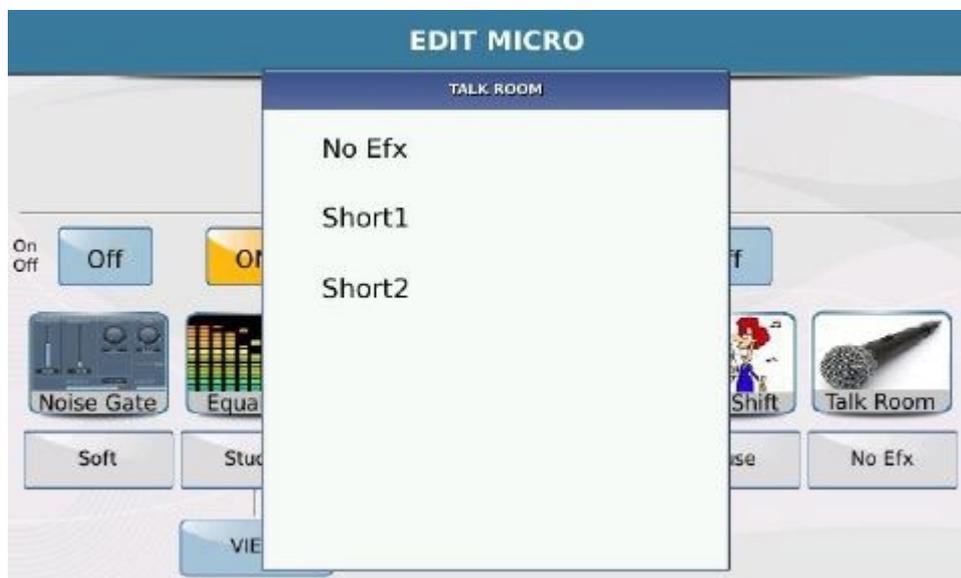
- **PITCH SHIFT** : Voice processor which may be used for transposition with 6 preset effects:



- **TALK** : The last effect on the list is that used for the **Talk** function, which may be enabled with the

corresponding key on the Front Panel. As previously mentioned, this function is used to talk and for obvious reasons of comprehension it uses shorter reverbs with respect to those used when you are singing. If you need to interrupt your singing performance to make an announcement for example, the Talk key allows you to have a suitable reverb in the microphone immediately, which will be enabled while the Talk key is on. After this, the microphone effect used for singing will then be restored.

In view of the fact that one of the 3 talk presets excludes the effect itself (No Efx) over the Talk effect, there is no **ON/OFF** to enable or disable it.

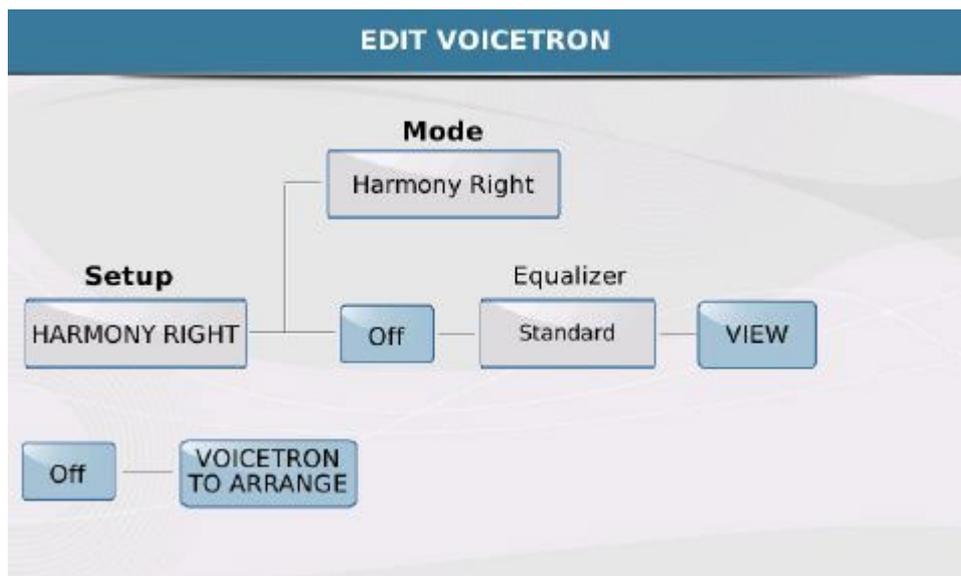


On the main screen of Edit Micro, if you press **SAVE** on the panel you can save the microphone setup in a User preset. The display allows you to select the target destination (**Select destination**) and assign a name to the preset with **SAVE AS** (in this case the alphanumeric keypad is displayed on which you may enter the name of the new microphone preset).





# Edit Voicetron



The **SETUP** box displays the Voicetron preset selected. When you touch the box, a Pop up window is displayed in which you can select the preset. To select the harmonisation, touch the **MODE** box. You may select one of the following harmonisation modes on the Pop up window that is displayed:



The Voicetron processor may be connected to an equalizer if the **ON/ Off** box of the diagram is ON.

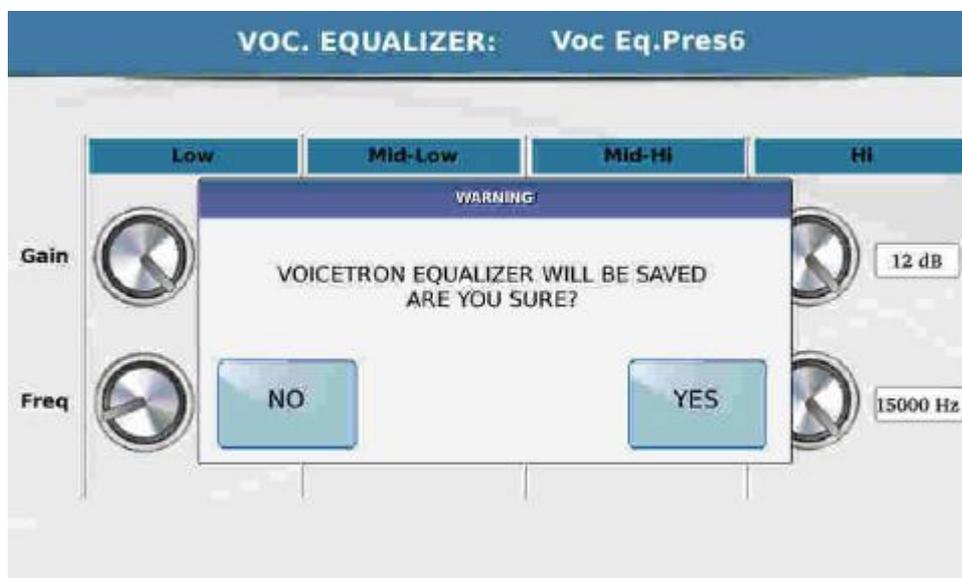
The presets of the equalizer are displayed in the **EQUALIZER** box and may be selected on the Pop up window.



The **VIEW** box shows the details of the 4 band parameter equalizer allowing you to modify the 4 frequencies and the corresponding gain in dB.



Once you have selected the virtual knobs and modified the value with the Dial, you can save the current preset of the equalizer by pressing the **SAVE** key on the panel and confirming with **YES**.

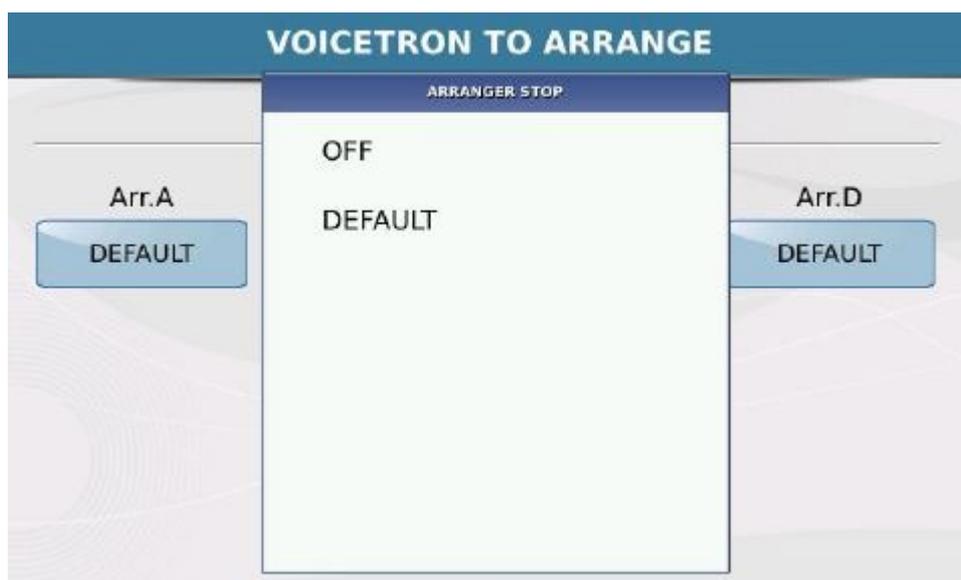


The **VOICETRON TO Arranger** function allows you to assign a different Voicetron preset for each of the ABCD arrangements. By touching the corresponding box, the following window is displayed.



Touch the corresponding box to assign the relevant preset to the 4 Arranges. Off disables harmonisation.

The **STOP** box at the bottom allows you to disable the harmonizer when the Style is on Stop.



You can save the preset of the Voicetron on the edit page by pressing the key **SAVE** on the panel.



The display shows the current name of the preset and the target destination in the field "Select destination" which opens the corresponding Pop up.

- **SAVE**: Saves the preset with the same name.
- **SAVE AS**: Opens an alphanumeric keypad that allows you to assign a new name to the Preset.
- **CANCEL**: Cancels save.

## [Micro 1](#)

## [Front Panel](#)



# Introduction



The Introduction screen (HOME) is displayed automatically when you turn on the instrument and provides access to the main functions, such as:

## - SOUND FAMILY SELECTION -



Press this icon to select page of the families of sound that will appear in this way:



# - SINGLE STYLE SELECTION -



Press this icon to select different Styles from selected family Style:

# - STYLE FAMILY SELECTION -



Press this icon to select Styles groups page as shown in the image below:



# - MENU CONTROL AREA -



In this area you can access to different menu on the Arranger Menu which will be explained in detail on the dedicated section .[ARRANGER](#)



# Introduction



The Introduction screen (HOME) is displayed automatically when you turn on the instrument and provides access to the main functions, such as:

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Press this icon to select Styles groups page as shown in the image below:



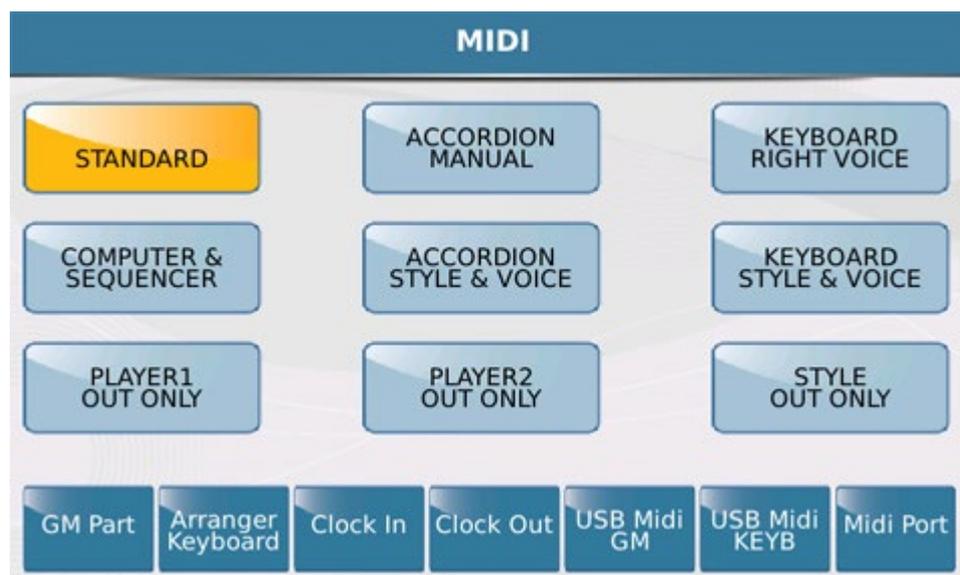
## - MENU CONTROL AREA -



In this area you can access to different menu on the Arranger Menu which will be explained in detail on the dedicated section [.ARRANGER](#)



# Midi



The 9 Midi KETRON settings are displayed at the centre of the screen.

- **STANDARD**: In this mode the SD90 may be controlled by an external Midi controller (via the Midi In) above all to play the Styles and Voices of the Arranger sound module.

- **ACCORDION MANUAL**: This is the Accordion Mode and should be used if you connect your SD90 to a Midi Accordion. Accordion Mode automatically sets a specific Midi channel on the following sections: Right Ch. 01, Left Ch. 02, Bass Ch. 03. It allows you to play the accordion manually, namely without an automatic accompaniment.

- **KEYBOARD RIGHT VOICE**: This is an optimised mode that allows you to control the Voice Lead via the external keyboard. It is substantially a variation of the Standard mode.

- **COMPUTER SEQUENCER**: This mode allows you to connect your instrument to an external Software Sequencer or Computer (via the Midi In). Select this mode when you are playing a Midifile or sequences from a computer (the SD90 will function like a GM sound module).

- **ACCORDION STYLE & VOICE**: This is a variation of Accordion Manual mode which uses the same Midi channel optimised for use with a Midi accordion and also guarantees the Arranger control via the accordion connected to the Midi In of the instrument.

- **KEYBOARD STYLE & VOICE**: This is yet another variation of standard mode which is optimised for Arranger control via an external keyboard connected to the Midi In of the instrument.

- **PLAYER 1 OUT ONLY**: This configuration may be very useful when you want to play a Midifile on Player1 using only the external sound module connected to the Midi Out of your SD90.

- **PLAYER 2 OUT ONLY**: As indicated above but for Player 2.

- **STYLE OUT ONLY**: This mode allows you to play the Arranger section using the sounds of an external module.

At the bottom you will find 6 virtual keys that provide access to new pages on which you may customise the Midi sections or enable specific functions.

- **GM PART**: Provides access to the control window of the 16 tracks called parts and to the 16 corresponding Midi channels used during reception and transmission from the GM sound module built into the instrument.

- **ARRANGER KEYBOARD**: Provides access to the control window of the sections and corresponding Midi channels used during reception and transmission from the sound module built into the Arranger of the instrument.

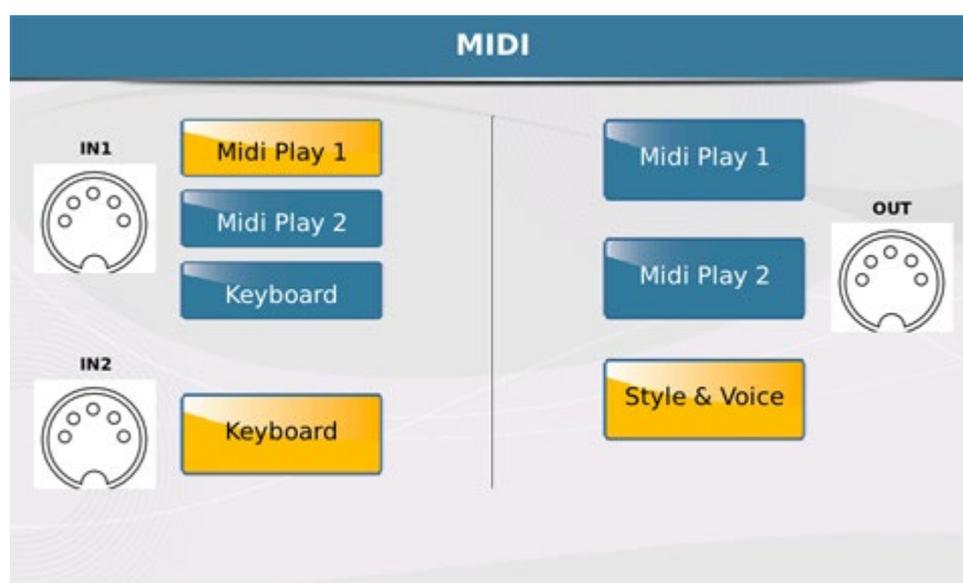
- **CLOCK IN**: When this is enabled (yellow) the SD90 accepts the Clock command from external Midi appliances and may be synchronised with an external Sequencer / Controller.

- **CLOCK OUT**: When this is enabled (yellow), the SD90 transmits the Clock to External Midi appliances (Sequencer/Controller).

- **USB MIDI GM** : Turns the USB Device port on the back panel into a Midi port for transmission and reception. In this mode the Midi connection to sequencer software may be made directly using a USB cable without using the Midi ports and traditional Midi cables.

- **USB MIDI KEYB**: Enable feature for connection with USB remote keyboard

- **MIDI PORT**: Pressing this key opens a window to route the Midi ports



The window displays 3 devices on the instrument and the respective connections to the Midi In and Midi Out ports. Midi In 2 port is addressed exclusively to the Keyboard (Global).

*Info: You can check an incoming MIDI activity thru Midi In Port by a led placed on EXIT button .*

## **STYLE**

## **MENU**



# Introduction



The Introduction screen (HOME) is displayed automatically when you turn on the instrument and provides access to the main functions, such as:

## - SOUND FAMILY SELECTION -



Press this icon to select page of the families of sound that will appear in this way:



## - SINGLE STYLE SELECTION -

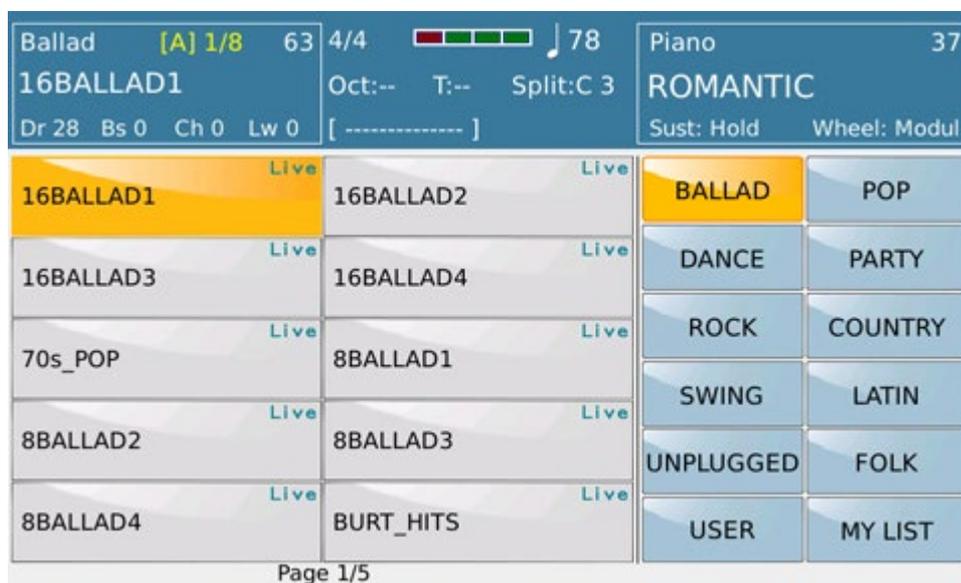


Press this icon to select different Styles from selected family Style:

## - STYLE FAMILY SELECTION -



Press this icon to select Styles groups page as shown in the image below:



## - MENU CONTROL AREA -



In this area you can access to different menu on the Arranger Menu which will be explained in detail on the dedicated section [.ARRANGER](#)



# Pic & Movie

The Pic & Movie key opens a window with a number of KETRON default files. With this function you may display the Pic & Movie on these Devices, using other external devices like Usb stick, Hd, etc.



When the directory contains numerous files, a scroll bar is displayed on the right to scroll through the screen. If the directory contains movies these will be displayed as icons at the centre of the display and may be played simply by touching the icon. In the same way, if the directory contains images they will be displayed at the centre of the display as preview Thumbs (a Thumb is a miniature icon which displays the contents of the image). Touch the thumb you require to open a full screen of the image. Once you have opened the full screen of the image you can move it by touching the touch screen display.

You will find the following function keys at the bottom.

**-TO RGB:** Loads the image as background of a text and transmits it to an external monitor together with the text.

**-TO LYRICS:** Loads the image as background of a text only on the display, while the text on the external monitor will not have the background.

**-DEFAULT:** This function restores the original folder of Pic&Movie when images (or movies) have been downloaded from an external Usb device.

When you select the **TO RGB and TO LYRICS** functions, the image selected will be displayed as background of the text both on the display and on the external monitor.

## Front Panel



# Tempo

Tempo function is controlled by related buttons on layout.



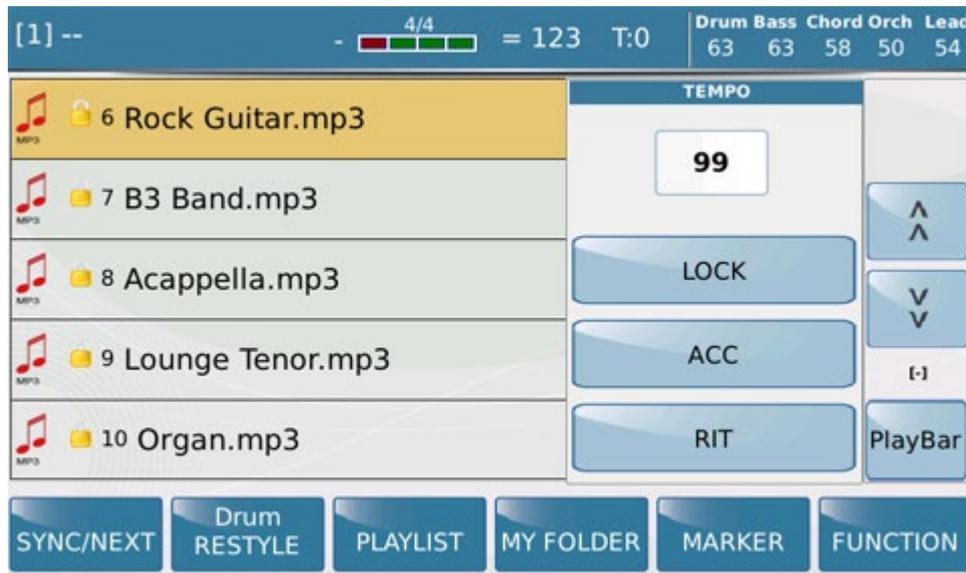
These commands will control on the same way Tempo feature + - ( Mode) on menu PLAYER (1-2) as well on menu ARRANGER.

Nevertheless Pop Up menu that appears for a few seconds by pressing the two buttons at the same time will be slightly different for the two menu.

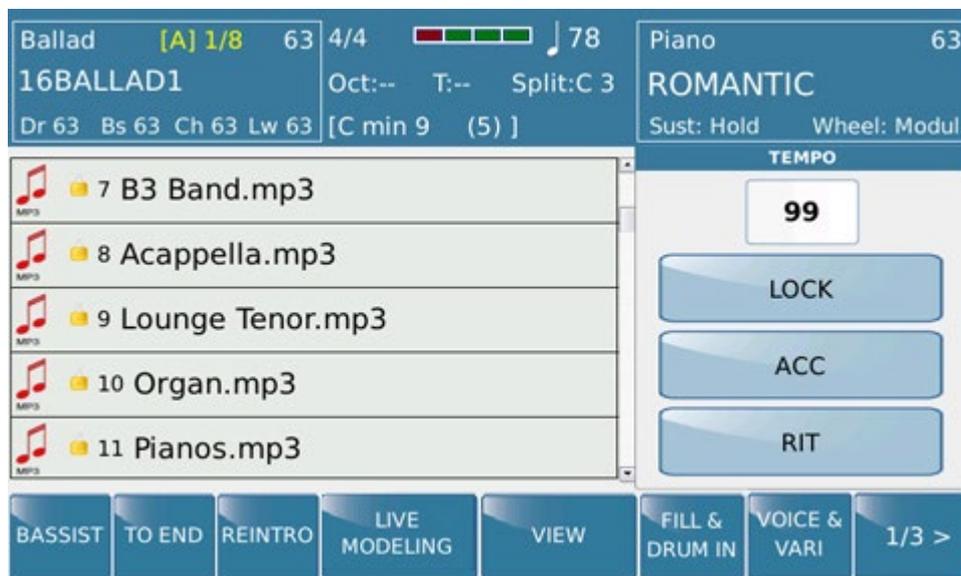
## PLAYER MENU

You can view in two different way depending on the chosen PLAYER menu view (Player or Player + Voice):

### MENU PLAYER #1

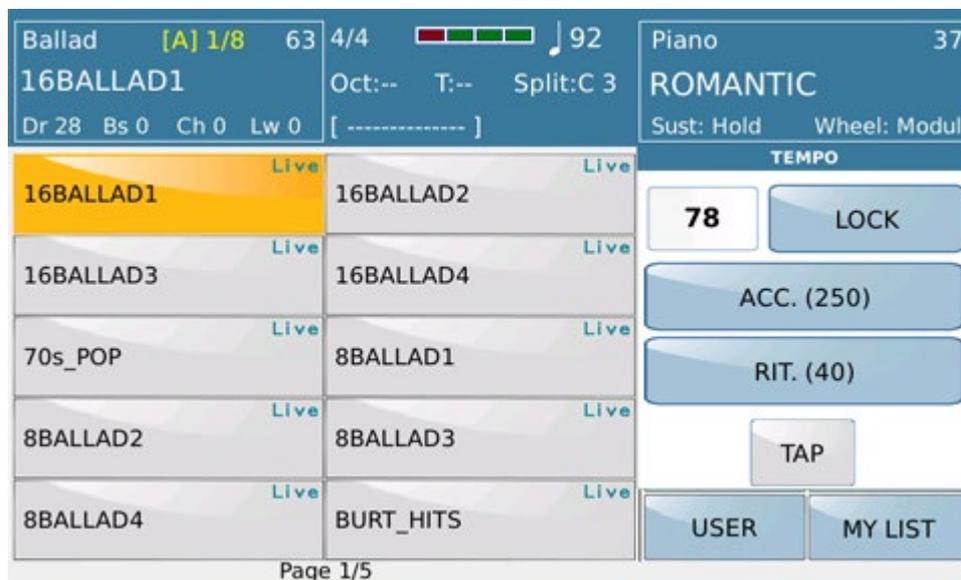


### MENU PLAYER (HOME)



Here as displayed from STYLE menu:

### STYLE MENU



In both menus will be available the following functions:

- **LOCK**: Locks the speed while you are playing a file and also between songs
- **ACC**: (Accelerating) Increases the speed of the file you are playing at intervals of 5 BMP
- **RIT**: (Delaying): Decreases the speed of the file you are playing at intervals of 5 BMP

In STYLE mode (led on).

Pressing the TEMPO- and TEMPO + buttons at the same time menu of time functions is showed .

Pressing and holding down the ACC box. (When style is on Stop) You enter the edit of Accelerando and Ritardando.

Pressing EXIT in the menu or EXIT will return to Normal operation.

In edit mode we have the functions Step, Lower Limit, Upper Limit.

#### Step:

If selected, the Accellerando / Ritardando step can be changed

Range from 1 to 20 (bar) means that the time is adjusted to the amount set for each measurement.

Range from 1 to 20 (beat) means that the time is adjusted to the amount set each quarter.

Pop [C-1] 1/8 63	4/4	65	Piano 53
LIGHT_FUNK2	Oct:-- T:-- Split:C 3		FM PIANO
Dr 44 Bs 55 Ch 0 Lw 48	[G (3,5)]		Sust: Hold Wheel: Modul.
16_FOLK Live	AMBIENT Live	TEMPO	
COCKTAIL Live	GUITAR_PUNK Live	104	Step: 5 (bar)
JAZ_LOUNGE1 Live	JAZ_LOUNGE2 Live	Lower Limit: 40	
LATIN_POP Live	LIGHT_FUNK1 Live	Upper Limit: 250	
LIGHT_FUNK2 Live	NEO_SOUL Live	EXIT	
		USER	MY LIST

Page 1/5

**Lower Limit.**

Establishes the lower value of the time in the case of / Ritardando.

In any case, the min. Range has priority. set the style in VIEW-> DRUM

**Upper Limit.**

Establishes the upper value of time in the case of Accellerando.

In any case, the maximum set range of the style in VIEW → DRUM has priority

The default values are Step = 5 (bar), Lower Limit = 40, Upper Limit = 250

In CUSTOM STARTUP the set values can be saved.

The values set by Accellerando / Ritardando can also be saved in any style for which the values saved in the Custom Startup (or Default) apply, unless a style has the saved values inside it.

- **TAP**: (Available only in the mode 'STYLE) (Tapping): To synchronize the time with the "drumming" of fingers.

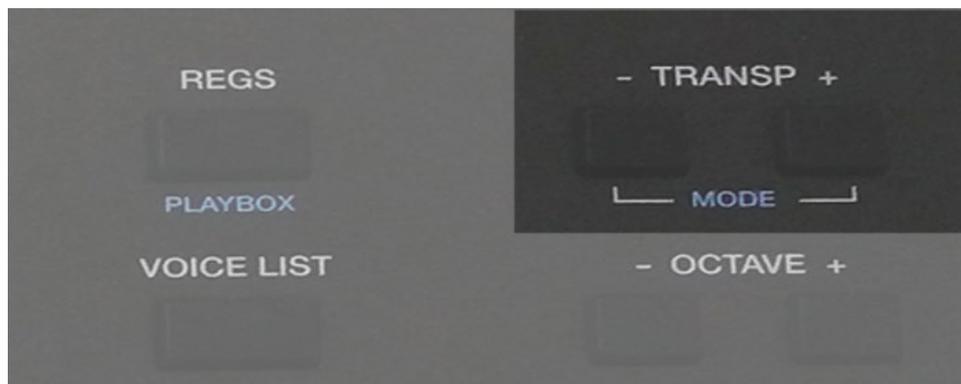
## PLAYER GM

### Front Panel

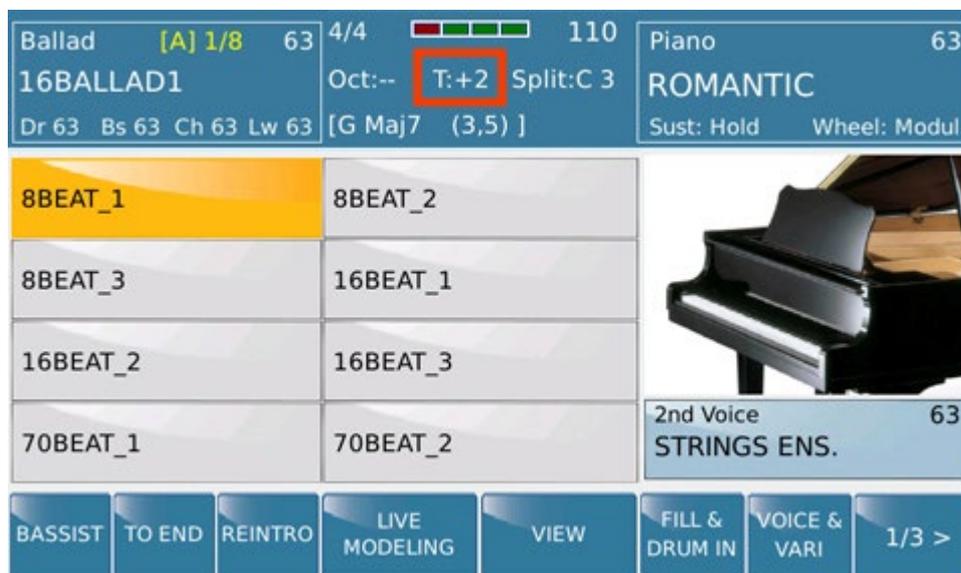


# Transposer

Related functions on Transposer are controlled by these buttons on the layout.



Transposer on Style and Voice Mode allows the transposition of the entire SD90.



Transposer allows a more detailed features through the display and by using Alpha Dial.

Holding down the buttons + and - for a few moments you will display in this way:

**PLAYER MENU #1**



### STYLE MENU (HOME)



- **GLOBAL**: Applies transposition both to the file you are playing and to the keyboard (Right section) and is sensitive to Song Reset, in other words it returns to the default condition whenever you start up the song. If you press the **Save** key while the file is playing you can save the global transposition value in the file, confirming this by pressing **Yes** on the Pop up save menu.

- **KEYBOARD** : Applies transposition only to the keyboard but not to the file and is sensitive to Song Reset. If you press the **Save** key while the file is playing you can save the transposition value of the Voice in the file, confirming this by pressing **Yes** on the Pop up save menu.

- **MAIN**: Applies transposition to the file and keyboard; it is not sensitive to the initial Song Reset of the file and may not be saved on the file.

- **ARRANGER**: Applies transposition on Arranger Section avoid to affect Player mode.

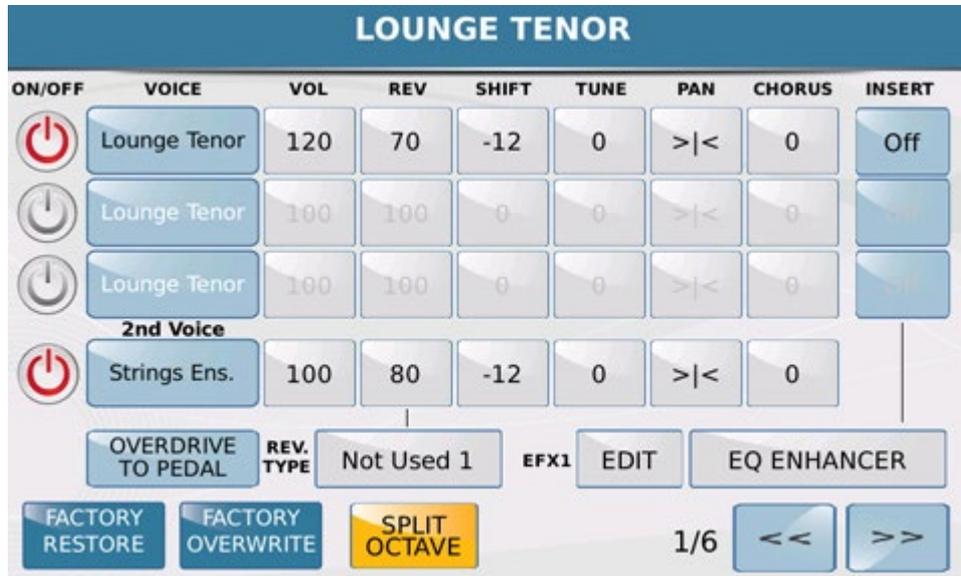
# PLAYER GM

## Front Panel



# Voice Edit

On the **EDIT** page of Voice mode you may assign 4 tones or layers to the keyboard connected to the Midi In. The fourth layer is called **2ND VOICE**.



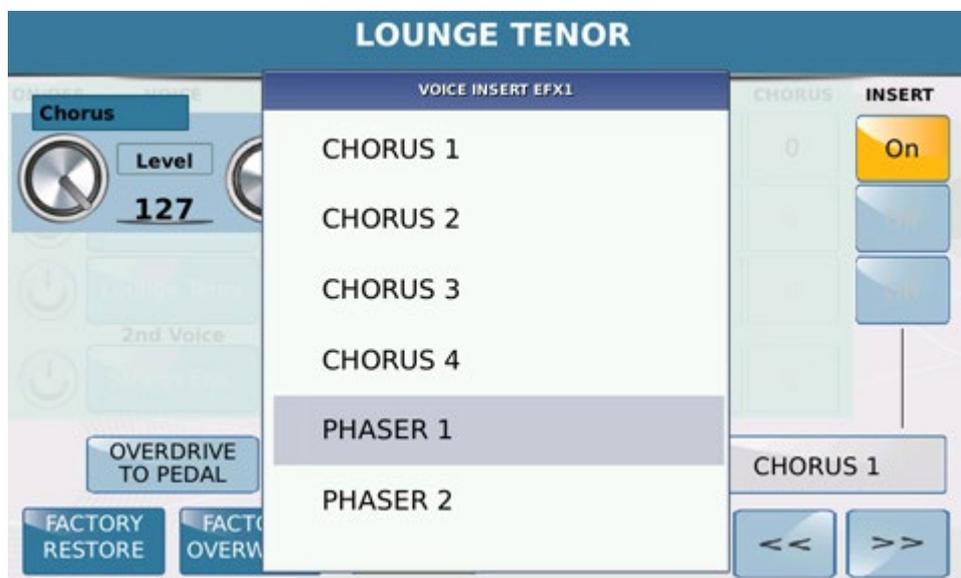
Each Layer may be enabled or disabled with the virtual key **ON/OFF**. The 2nd Voice layer may also be enabled or disabled on the main screen of Voice Mode by selected the **2ND** key or directly from Touch Screen view:



You may assign a sound to each layer by selecting the box of the **VOICE** column that will enable a window on which you may select the sound and sound families.

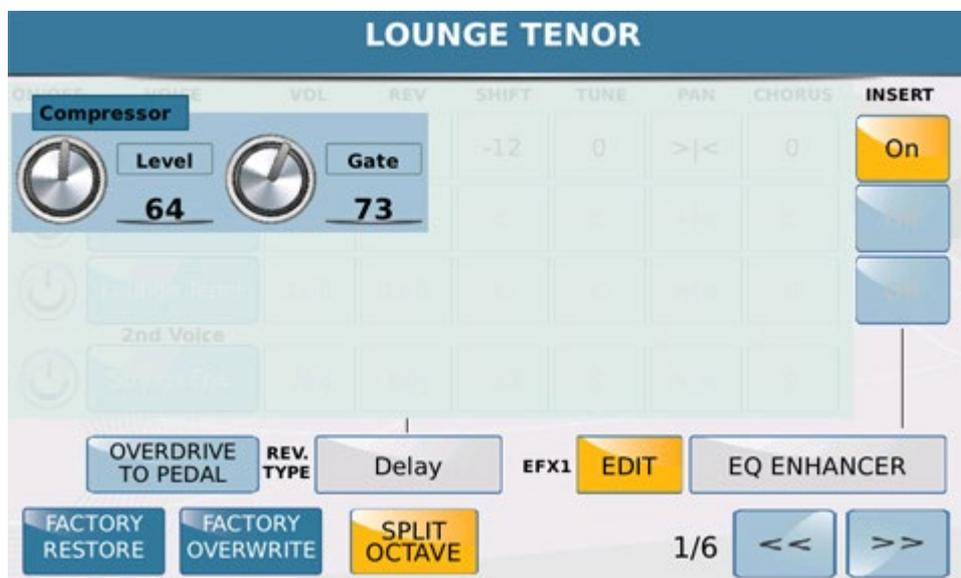
You may set the **VOLUME, REV, SHIFT** tone, fine **TUNE**, **PAN** and **CHORUS** values for each layer and also enable an **INSERT** effect on the first 3 layers.

To select the Insert effect, press the **INSERT TYPE** box that will open the following page on which you may select the effect.



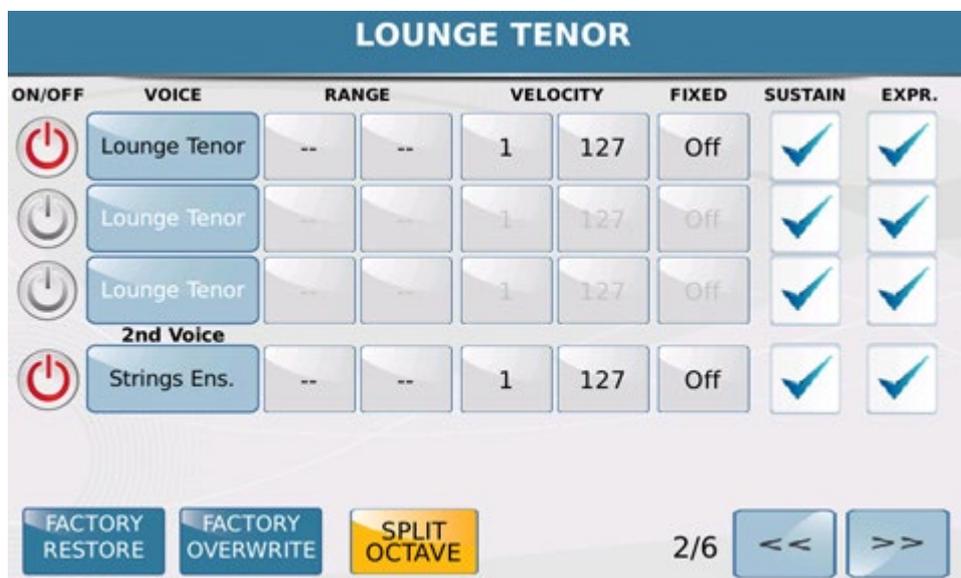
You will find a number of virtual keys on the Edit window at the bottom.

**-INSERT EFX EDIT** : Allows to Edit EFX Insert selected.



**- SPLIT OCTAVE**: Lowers the Upper sound by an octave when the split point is above C1

On the right of the display you will find the number of the Edit page displayed together with 2 keys to scroll the pages forwards (double right arrow) or backwards (double left arrow).



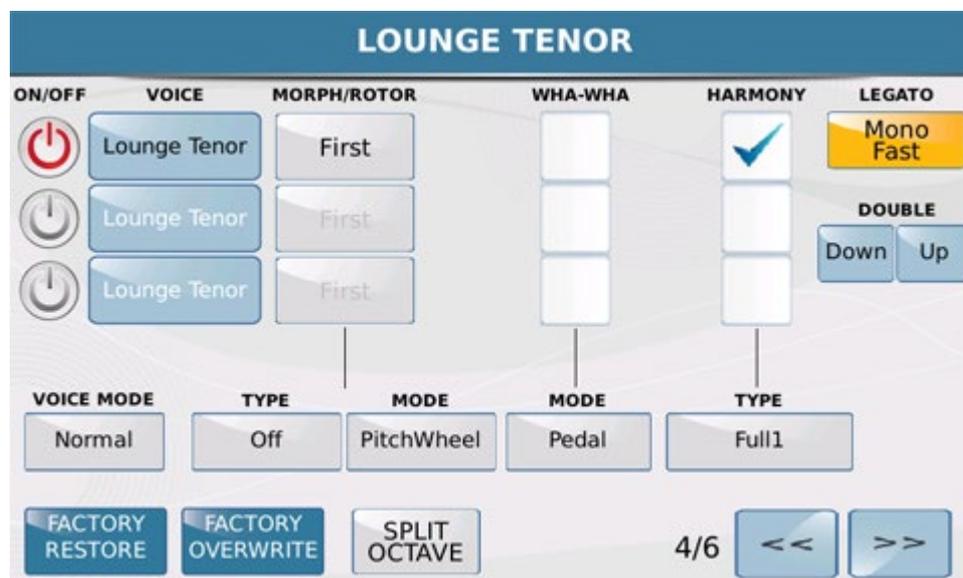
On the second Edit page you may set the **RANGE** of the sound assigned to each layer by setting the lowest and highest notes.

You may set the **VELOCITY** key range in the same way by entering the minimum and maximum values for each layer. In this way, the keyboard keys will play different sounds depending on the pressure on the keyboard keys. If you set a fixed Velocity Key value, this value may be set in the **FIXED** box independently for each layer.

Finally, you may enable the **SUSTAIN** and **EXPRESSION** pedal for the layer.



On the third page you may set for each layer the parameters of the **PORTAMENTO** effect (Portamento On/Off and speed), the parameters of **MODULATION** (you may decide to which functions the Pitch Bend and Modulation wheel is applied), and the parameters of the **PITCH** and **AFTERTOUC**H. The **SLIDE** function is also available for the first three layers, where you may set the Threshold value, namely the efficiency threshold of the slide.



On the fourth page you may assign 4 effects to the first 3 layers. More specifically you will find the following:

- **MORPHING** : In the box you may set the Morphing mode between one VOICE and another according to the parameters ALL,, FIRST and SECOND. If the voice is set as First, the morphing effect will be on the starting sound, if the voice is set as second this will be the incoming sound, namely the sound that enters completely when the function that acts on morphing is at the maximum value. If you set the function on ALL,, the Voice is always enabled.

To set the MORPHING effect between two or three VOICES, select the parameter **Type on Normal, Rotor or Coupling**. In the first case the passage will be from the first to the second sound, in the second case the transition between two sounds (typical of Organ) is obtained with the Sustain pedal. In the third case (Coupling) the second sound is added to the first. To introducing the Morphing effect use the Modulation Wheel or the pedal control shown in the box under **MODE**.

The second effect that may be enabled on the voices is the **WHA-WHA** and may be introduced simply by ticking the corresponding box. At the bottom of the same column you will find the **MODE** box where you may enter the type of control that acts on Wha-Wha.

The third effect is **HARMONY** which harmonises the notes you play with your right hand on the Upper section with the chord you play on the Lower section. The options you may select in the Type field for Harmony are: **Bluegrass Down - Up , Country Down - Up , Full1-2 , Folk1-2 , 2Hands**.

Then we find **LEGATO** effect .The Legato feature works on all the active voices except the Second voice.

There are 6 types of Legato: 3 Mono Legato and 3 Poly Legato.

Each time you touch the new **Legato** icon, a different Legato type is selected. Choices are: Fast with fast attack, Medium with medium attack and Slow with a slow attack.

- The last effect is **DOUBLE** which is automatically assigned on all Voices

-**DOWN**: Adds an octave below on the note played of the selected Voice

-**UP**: Adds an octave up on the note played of the selected Voice

You may set a number of properties common to all 3 Voices in the **VOICE MODE** field that you will find at the bottom on the left.

In **Normal** mode all the Voices are overlapped regardless of the notes you play. In **Duet** mode, when you play a two note chord or a chord of 3 or more notes, the First Voice plays the highest treble note, the Second Voice plays the lowest bass note and all the other notes play all the Voices of the Layer. If you play only one note, only the First Voice will play. The only difference between Duet 1 and Duet 2 is the acquisition and play speed of the notes. **Trio 1, 2** Mode is similar to Duet but for 3 notes. **Steel Mode** is a specific function of Pitch Bend on the voices. Pitch Bend affects only the lowest bass note you play and is very useful when you want simulate the playing technique of some instruments such as the Hawaiian guitar, violin etc.

On feature such **TYPE, MODE** you can define assignments and operating use of these parameters.

## -ADR-FILTER-V-TONE



- **ATTACK** : Sets the attack time of the sound.

- **DECAY** : Sets the decay time of the sound.

- **RELEASE** : Sets the release time of the sound.

- **RESONANCE** : Change the level of resonance.

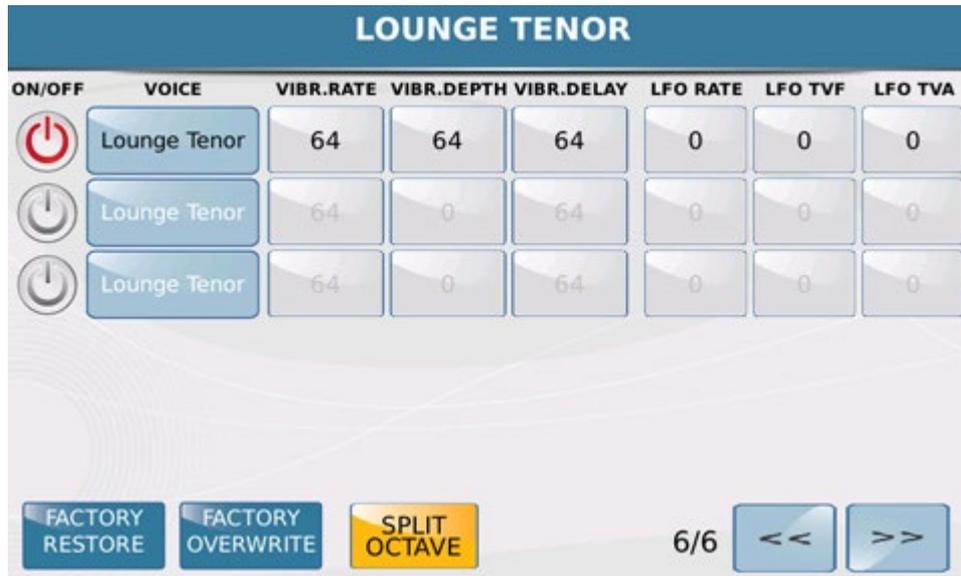
- **CUT OFF** : Change the cutoff frequency

- **DYN FILT** : Filter of VOICE is controlled through the dynamic.

- **V-TONE** : Activates exclusively on Voice marked with the logo V. The V-Tone allows sound created with this feature a sort of round robin timbre (ie an automatic and / or random variable timbre of the same wave). When you apply the flag of the V-Tone on the icon inside of the Voice on which you are working (obviously if predisposed to this function) will appear a tiny V just to indicate the activation of this feature. Meanwhile this symbol will be displayed on the other Voices also just to show feature available.

## - MODULATION

Here the parameters available for each Modulation Voice:



- **VIB.RATE** : Vibrato Frequency

- **VIB.DEPTH** : Vibrato Depth

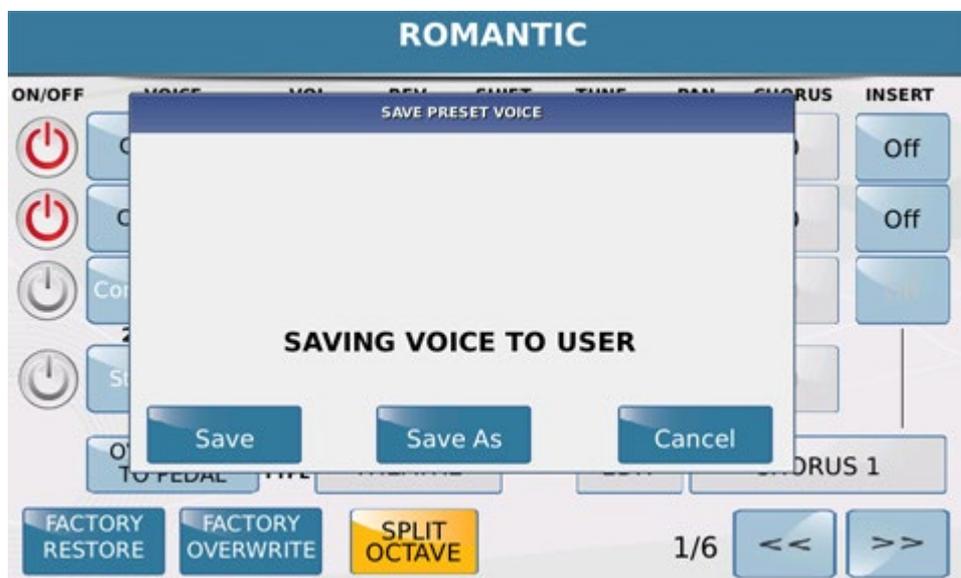
- **VIB.DELAY** : Delay time of Vibrato

- **LFO-RATE**: Frequency of Oscillator.

- **LFO-TVF** : LFO amount on Filter.

- **LFO-TVA** : LFO amount on Amplitude.

**SAVING VOICE** : Once you finished you can save the changes on VOICE in this way



**-SAVE** : Save the Voice with the same name

**-SAVE** : : Save the Voice with possibility to assign a new a new Name on USER location

**-CANCEL** :Clear SAVE operation

There is also the possibility to save the VOICE changed on the Internal Section (PRESET) .

Before pressing SAVE tab press **FACTORY OVERWRITE** tab. The display will show::



**-YES** : Save VOICE with same name on same original location (PRESET) .

**-NO** : Clear SAVE operation

In case you got a mistake or simply would restore VOICE modified to the original version press **RESTORE**

**FACTORY** tab. The display will present 'in this way:



**-YES** : Restore selected VOICE with original parameters.

**-NO** : Clear SAVE operation

## [VOICE](#)



# Search



When you press the **SEARCH** key on the left of the display you enter a window with a virtual alphanumeric keypad and a virtual numeric pad on which you may enter the file name or file number you are searching for. After entering the file name or number simply confirm by pressing **ENTER** to start the file search. This function searches the Media you have selected, in other words if you have selected the external memory of a USB device (for example), Search will perform the search only on that device.

The **LOCK** option, on the other hand, allows you to search for the file in the directory selected without entering and escaping repeatedly from Search mode. After selecting the Lock function, the current directory is displayed and you may search for your file using the keypad at the bottom of the display.

There are also 9 quick search keys at the bottom of the display; simply enter the file name or number in the corresponding box to perform a search without using the virtual alphanumeric keypad or numeric pad. The key functions in a very similar way to that of a mobile phone: tap the key once to enter the first letter. Tap the key quickly twice to enter the second letter, 3 times to enter the 3rd letter and 4 times to enter the number. If you wait before tapping the key again, the first letter etc. is entered again. If you make an error, go back by pressing the **DELETE** key on the right at the top.

Pressing on the icons of the two keypads the display will show in this way:

File Search:



Numeric Search:



## [Front Panel](#)

## [PLAYER GM](#)



# Input

When you press the **INPUT** key on the panel, you enter a page where you may adjust the settings of the second analogical audio input of the instrument that may be a microphone input (Micro2) or guitar input (GUITAR).



Here again the page is subdivided into 2 sections: the first is **MICRO2** and is for the microphone settings while the second is **GUITAR** and is for the guitar effect settings. Considering that this is a single audio input, the modes cannot be enabled together so that you may either use the input as a second microphone input or as a guitar input. When you enable MICRO2 therefore, GUITAR mode is automatically disabled and vice versa.

All the parameters of **MICRO2** mode are exactly the same as those of [MICRO 1](#) mode. The only extra feature is the key FX BYPASS which you may use to quickly disable the effect.

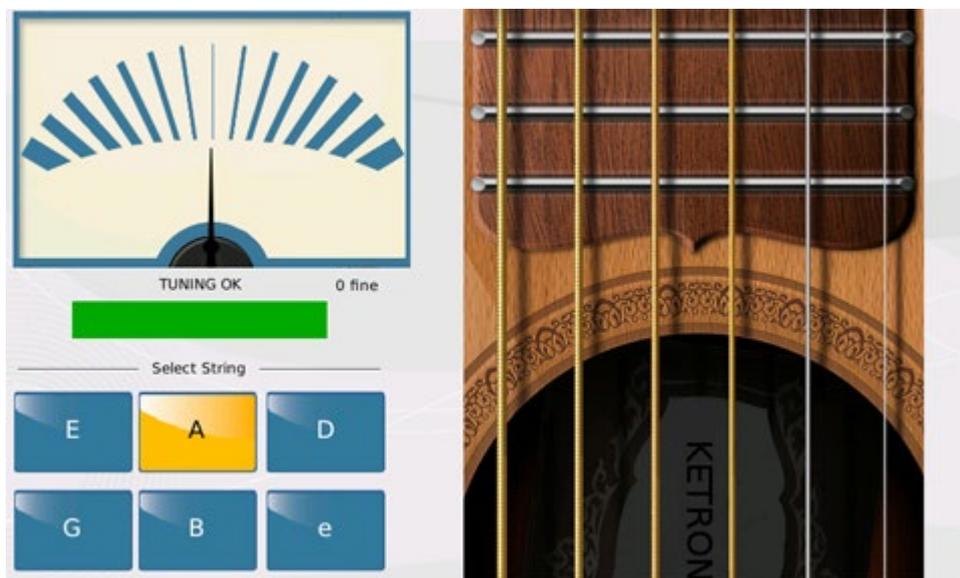


In this section we also find a very useful Guitar Tuner to tune your guitar without use external devices. The Guitar Tuner can operate in two modes: Tone Generator or Tuner detection.

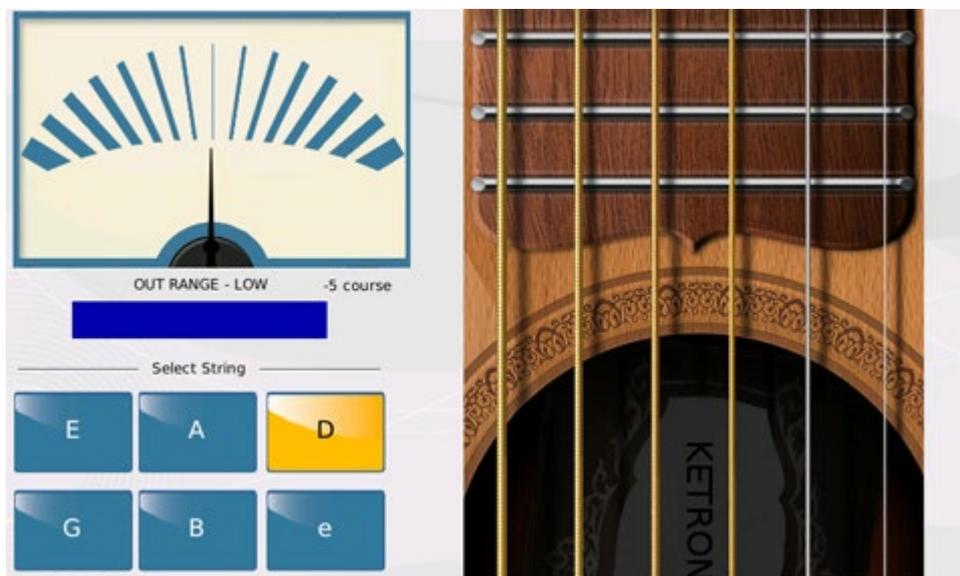
In this mode by tapping on the virtual strings represented by the display you can hear the notes produced by SD90 such 6 string guitar reference (E A D G B e).



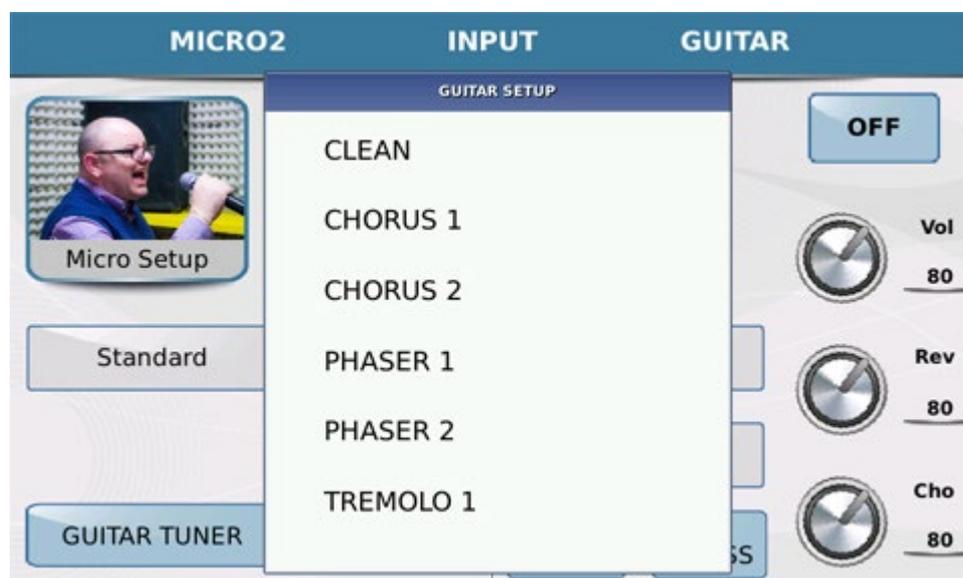
The Tuner mode detection allows to use the tuner instead of the traditional way. By connecting your guitar on dedicated input (MICRO 2) you can check on display current status of tuning. The bar with the GREEN colour will indicate perfect tuning.



BLUE or RED colour (related of tolerance tuning) will suggest how to correct your instrument tuning.

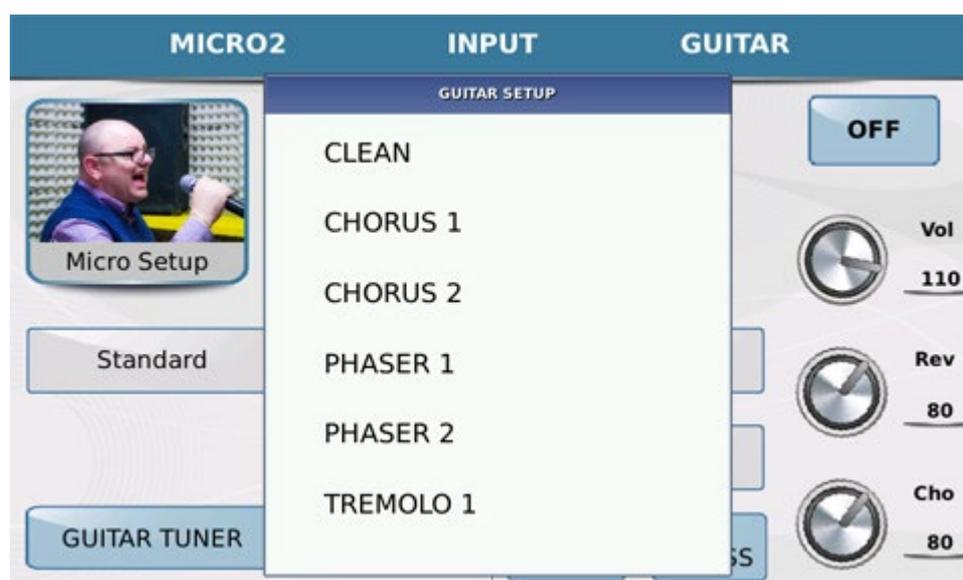


In Guitar mode you will also find a number of virtual knobs that may be selected on the Touch Screen and modified with the Dial, that function on the Volume, Reverb and Chorus as well as various setups and insert effects especially for the guitar.



When you touch the box **GUITAR SETUP** a Pop up is displayed with 16 factory setups that may be selected simply by touching the setup you need. By pressing **EXIT** you escape from the drop-down menu and return to the previous screen.

Each setup selected has an insert effect which is displayed in the box **INSERT EFX1**. You may change the insert effect of the setup by touching the corresponding box and selecting the effect you prefer from the drop-down menu that is displayed in the same way as that described for the Guitar setups.



Finally, each guitar effect may be edited by pressing the **EDIT** key.

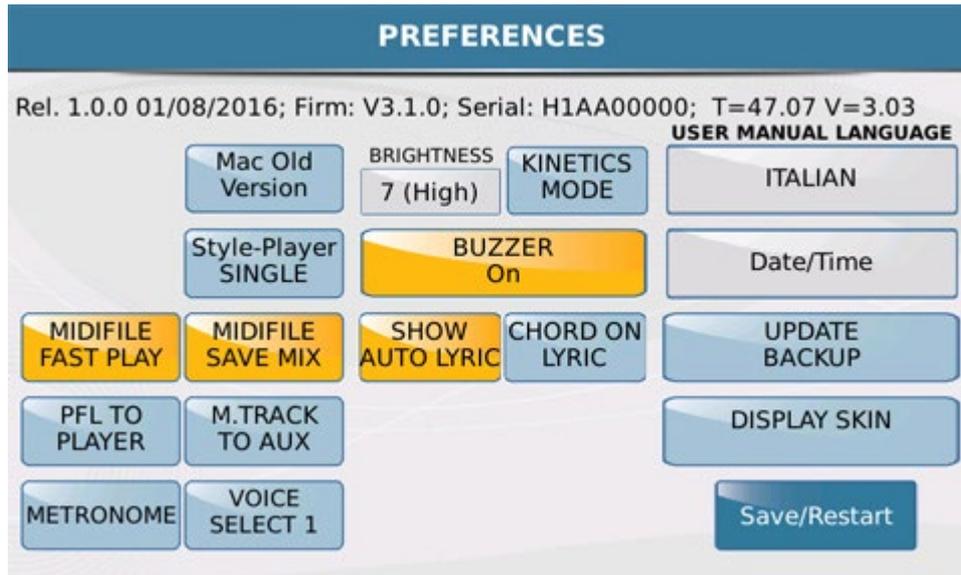
Any the changes made to the effect may be saved in a Setup by pressing the **SAVE** key on the panel. The display

allows you to save your modifications in an effects setup for microphone or guitar. Once you have made this choice, you may press **SAVE** to open a window on which to save the setup with the same file name or you may press **SAVE AS** to open the alphanumeric keypad on which you may save the setup with a new file name.

## [Front Panel](#)



# Preferences



- **Mac Old Version:** Allows USB connection by previous Operating system of Mac ®
- **Style - Player SINGLE (DUAL)** : This function (SINGLE as default) allow to switch immediately between Player menu and Style menu. User after using Player menu can play immediately Styles without show intermediate status where SD90 show Player files and Voice section.
- **Midifile FAST PLAY:** This function starts the Midifile more quickly, reading the opening measures (which generally contain the data of the Controllers and other data) more rapidly. This is a very useful function for immediate Start, Mixing or Crossfade needs.
- **Midifile SAVE MIX** : With this feature will be possible link (or not) on midi file pre assigned value Mix using Slider (It will be related also by Midi Mix tab on/off status of the Function menu).
- **PFL TO PLAYER** : This function enables headphone playback in Play. If this function is selected, when you use the two players of the instrument the virtual key **PFL** appears at the top on the right of the display for headphone playback. When this function is disabled, the **PFL** key is enabled only in **DJ** mode.
- **M.TRACKS TO AUX** : With this function we can assign audio track #6 (metronome or else) used on **MULTITRACK** mode on separate AUX manageable then individually for multiple uses (Drummer Headphone, Single Out, Power Headphones split, etc).
- **VOICE SELECT 1/2** : This function ( Mode #2) can "remember" last selection made VOICE family. Whenever you choose a Voice "browsing" between the various families SD90 will show last selection made. In Mode # 1 this feature will be ignored.
- **METRONOME:** This function opens the page of the instrument metronome. When you select this function the following window is displayed with the metronome settings that will now be described.



- **VOL**: This is the virtual **Volume knob of the metronome**. Select this knob on the display to adjust the metronome Volume with the Dial.
- **TIME SIGNATURE\*/** and **TIME SIGNATURE/\*** : These are two boxes in which you may set the tempo value. Simply select each box and modify the value with the Dial.
- **LINK/RUN MODE**: This box may be set in one of four different modes in the same way, namely by selecting the mode on the display and then using the Dial. **NONE** mode disables the metronome. **FREE RUN** mode enables the metronome independently from the midifiles or Styles, just like an external metronome. **Midifile** mode links the metronome to the Midifile you are playing, in other words it synchronises the metronome tempo with that of the Midifile. **STYLE** mode links the metronome to Style synchronizing it with the tempo of the Style.
- **ENABLE**: Enables or disables the metronome audio and therefore has **ON** and **OFF** modes which may be selected on the display.
- **BPM**: You may use the BPM to set the metronome speed with the Dial.
- **OUT**: Sets the output mode of the metronome. After selecting this function with the Dial you may set it on "SOLO" mode that plays only the metronome through the headphones without music or other resources generated by the SD90 or on ALL mode where you will hear both the metronome and music through the headphones.
- **TYPE** : Allows you to assign 3 different tones to the metronome click. Here again simply select the function on the display with the Dial.

- **BRIGHTNESS**: Brightness adjustment

- **KINETICS MODE**: This function allows you to scroll the screen with your fingers. To save this setting press the **SAVE** key on the panel and then select **SAVE CUSTOM STARTUP**.

- **BUZZER**: When this function is ON you will hear a "beep" when you select a function on the display. When this function is Off the "beep" is disabled. To save this setting press the **SAVE** key on the panel and then select

## SAVE CUSTOM STARTUP.

- **SHOW AUTO LYRIC:** Allows to show automatically lyrics on the display when the file is playing.
- **CHORD ON LYRIC:** Allows to show automatically Chords (where available) under Lyrics line on the display when the file is playing.
- **USER MANUAL LANGUAGE:** Allows you to set the language of internal user manual. Touch the box to open a Pop on which you may select one of the following languages: English, German, French, Italian, Spanish or Portuguese. Select the **SAVE/ RESTART** on the display to save this setting.
- **DATE/TIME:** Allows you to access the following page to set the date and time:

The screenshot shows a 'Calendar' interface for February 2015. The days of the week are labeled as dom, lun, mar, mer, gio, ven, and sab. The current date is 22:02:2015. Below the calendar, there is a 'Date/Time' section with a 'Current Date' field set to 22:02:2015, a 'Locale' dropdown set to Italian/Italy, and 'Current Time' fields for hour (21) and minute (41). An 'Update' button is located at the bottom right of the Date/Time section.

The months on the calendar displayed at the centre may be moved forwards or backwards with the right and left arrows.

To select the day simply touch the day of the month on the calendar or select the field **CURRENT DATE** and change the value with the Dial. To change the time, select the boxes at the bottom of the screen and adjust with the up (increase) and down (decrease) arrows next to each box. Finally, there is also a field called "**LOCALE**" on the screen on which you may select the language for the days of the week. Use the **UPDATE** key to update the date of the instrument to date set by the user. Select the **SAVE/ RESTART** on the display to save this setting.

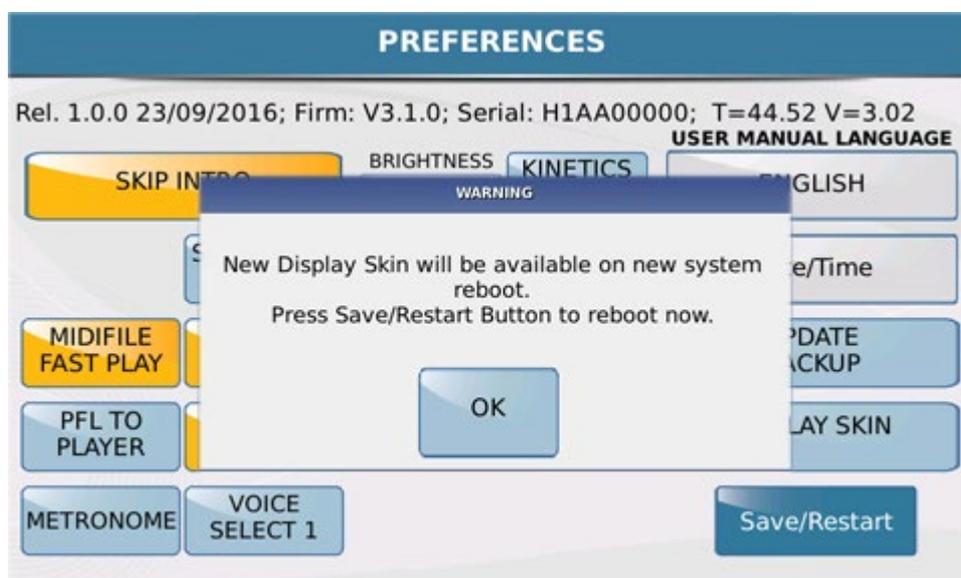
**SAVE/ RESTART:** Use this key to save the language and Date / Time settings and then switch your instrument off and on again.

- **UPDATE BACKUP:** This tab opens page for the various functions such Import / Export data (Playlist, System, My Folder backup) and the possibility (by **SYSTEM UPDATE** tab) to update future OS

- **DISPLAY SKIN:** SD90, as well many devices of our time, allows you to modify some aspects of the global graphics tool (SKIN). Pressing this button gives access to a selection page with different SKIN suggested by KETRON:



Once you select your new preference and then pressing the Close command will appear the following screen:



[MENU](#)

[Front Panel](#)



# Connections



<b>DC 9 V 4A</b>	<b>Mains power supply socket</b> Please use only the power supply supplied with the instrument. Output: 9 V, 4 A.
<b>ON/OFF</b>	<b>ON/OFF key.</b> This instrument may take up to 30 seconds to start up. To turn off the instrument, press the ON/OFF key and wait for the instrument to turn off. This may take up to 10 seconds.
<b>SUSTAIN PEDAL</b>	Standard jack to connect a Sustain pedal (optional).
<b>VOLUME PEDAL</b>	Standard stereo jack to connect a Volume pedal (optional).
<b>VIDEO DVI</b>	Digital video interface for connection to an external video monitor.
<b>USB DEVICE</b>	This is used to connect a computer USB device or other devices to manage the SD90 as an external removable unit.
<b>FOOTSWITCH</b>	Standard multi-pin plug for connection of an optional pedal to control a number of internal functions. Compatible with Ketron FS6/FS13.
<b>MIDI</b>	Plugs for MIDI IN1 (GM), MIDI IN 2 (Key), MIDI OUT and MIDI THRU connection.
<b>MAIN OUT</b>	Standard mono jack for the main output to connect to a PA STEREO system: left (Left Mono), right (Right Mono). We strongly recommend that you use the stereo connection for best performance of the instrument and relevant EFXs. A Mono connection (namely use of only the Left or Right output) will give poorer reproduction with respect to quality of the sounds and EFXs of the instrument.
<b>HEADPHONE - AUX</b>	Standard stereo jack for connection to a headphone. The volume of the headphone is controlled by the Master section. Aux separate Out Assign
<b>MICRO IN</b>	Standard mono combo plug (Jack/Xlr) for connection of a dynamic microphone.
<b>GAIN MICRO</b>	Potentiometer for adjustment of the Micro 1 input signal gain.
<b>MICRO OUT</b>	Standard mono jack dedicated exclusively to the Micro 1 output.

## INPUT

Standard mono jack for connection of auxiliary other instrument such Keyboard, Expander, Guitar or Dynamic Microphone



On the right of the instrument you will find a slot for the **SD Card** and **3 USB Hosts** for connection to external USB devices such as Pen drives, HD etc.



# EFX1 Edit



The display shows a number of effect footswitches, typically used by guitarists, and a guitar amplifier. Each pedal effect may be enabled or disabled and the value of the effect may be modified. You can for example touch the knob of the distortion effect to enable it (a red light on) or touch it again to disable it (red light off). You can vary the distortion value by turning the distortion potentiometer with the Dial. Finally, if you touch the lower part of the footswitch where a rectangular box is displayed, a pop up window opens with the distortion preset already configured.

The Wah footswitch does not have virtual potentiometers for adjustment, and may only be enabled or disabled; it does however have the rectangular box on which you may select the preconfigured presets (Mono Wah, Stereo Wah etc..). The best application of the effect Wah is obviously obtained using an external footswitch for control.

Delay also has the Tap Delay option which synchronises the echo repetitions with the tempo of the Style or Midifile.

You can also turn the amplifier simulator on and off and has a rectangular box which opens a pop up window with different amplifier models to select.

**FACTORY RESTORE:** This function allow to restore original Factory Guitar Set Up when DSP is enabled to Guitar On Mode .

Finally, the entire chain of effects may be excluded with the **BYPASS** key that you will find in the bottom right hand corner of the display.

You can produce a new chain of effects and save them in a single preset (User).



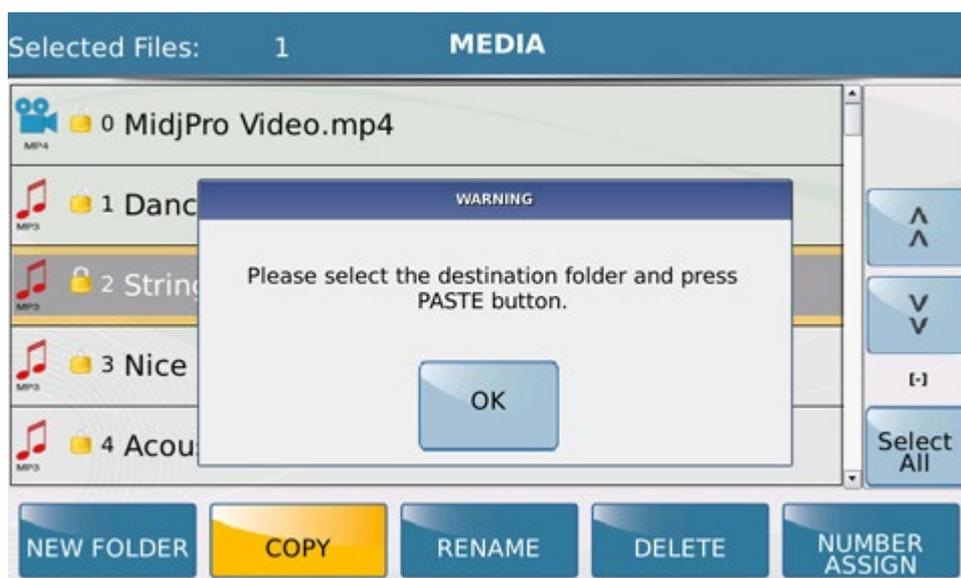
# Disk Edit

This enables a number of functions for the files selected on the bottom bar. The files may be selected one by one, together or in block using the function **SELECT ALL** that selects all the contents of a folder.



Let us now examine these functions.

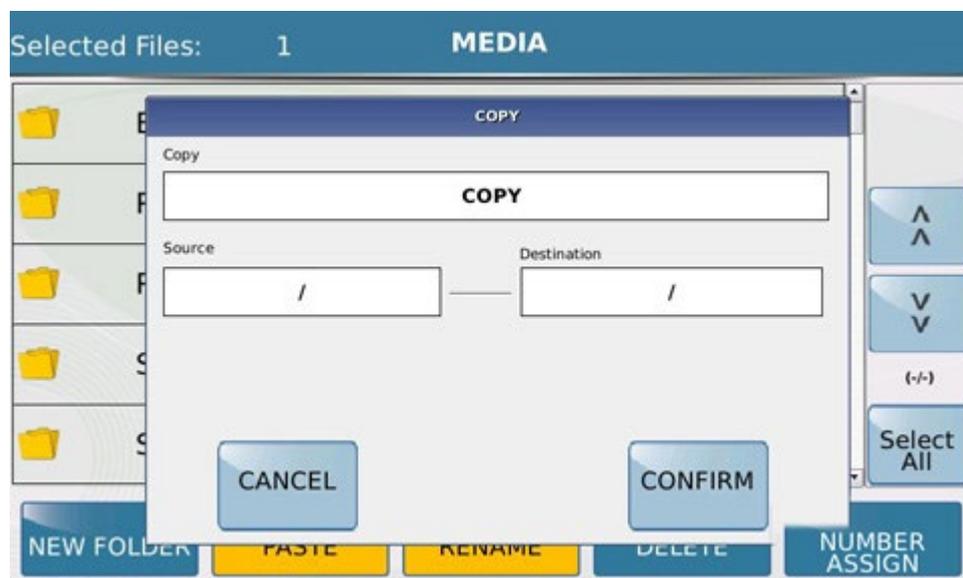
- **NEW FOLDER** : This is used to create a new folder in the current position, namely in the last folder selected. The name **FOLDER 001** is assigned by default. Select **CONFIRM** to confirm the creation of the folder. If a folder named Folder 001 has already been created, an error message will be displayed. In this case, simply assign a different name to the folder using **RENAME** at the centre of the display. When you touch **RENAME** an alphanumeric keypad is displayed on which you can enter the name of the folder. Select **CANCEL** to cancel the new folder creation process.



- **COPY**: Allows you to copy one or more files that you have selected. In this case select the folder in which to copy the files and press Paste. As soon as you select the folder in which to copy the files, the key **COPY** turns into the key **PASTE** as show below.



Press the key **PASTE** to open another screen displaying all the details of the operation you are about to perform.



At this point, simply confirm the copy by pressing **CONFIRM** or cancel by pressing **CANCEL**.

- **COPY FOLDER** : It allows you to copy one or more files previously selected. Pressing exactly over of the icon of the folder you have selected the entire folder (or more) to be copied. The procedure for save it in another location (or delete) is the same used previously for the single file.



- **RENAME**: Allows you to rename a selected file.



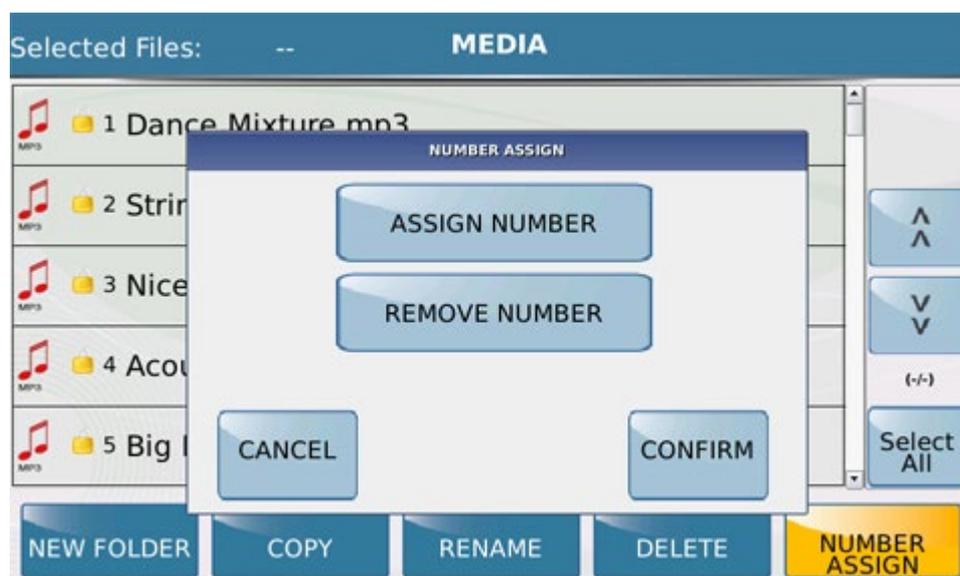
Here again a window is displayed at the centre of the screen, on which you can CANCEL the operation or go ahead with the RENAME by enabling a virtual alphanumeric keypad on which to write the name, confirming this by pressing CONFIRM. The correct name of the file or current names of the files selected are displayed in the Rename box. The modified name or names will be displayed in the box below (To:).



- **DELETE**: Deletes one or more previously selected files. Here again a dialogue box is displayed asking you to confirm or cancel the operation.



- **NUMBER** : Allows you to assign or remove the number from a file or files which have been selected.



Here again, the dialogue box which appears at the centre of the display allows you to confirm or cancel the operation.

Press the **MEDIA** key again to return to the main screen of MEDIA mode.

When you are in **Disk Edit**, the led of the **MEDIA** key will flash.



# Lyrics & Score

SD90 can manage files of different formats in order to show Lyrics, Score and more in different ways. These features make the SD90 even more versatile multimedia device where application such text, lyrics and Score notation can be really important.

From the Main **Player** screen SD90 can manage files with the extension. Txt or. PDF mode directly or linked with multimedia file then we're going to explain in detail.



Selecting the file .Txt (this file can contain just only text) and then pressing the **ENTER** button you have the possibility of view its contents directly on the display or external monitor.



With midi or karaoke files (if stored) SD90 offers the opportunity to view Chords track synchronized overlap the lyrics.

4/4 = 69 T:0 Drum Bass Chord Orch Lead  
63 0 0 24 40

Gm6 G D Gm6 G D  
**DON'T GO CHANGING TO TRY AND PLEASE**  
G#m7 G Gmaj7 Bm7

ME  
C Gmaj7

**YOU NEVER LET ME DOWN BEFORE**  
Gm7 D Am7

MMM MMM MMM MMM MMM  
D7 Gmaj7

**DON'T IMAGINE YOU'RE TOO FAMILIAR**  
Gm7 D' Bm7 E7sus4

Karaoke  
^  
^  
v  
v  
[5:1/68]  
PlayBar

SYNC/NEXT Drum RESTYLE PLAYLIST MY FOLDER MARKER FUNCTION

This feature is suitable from Preferences page with Chord Lyric tab .

**PREFERENCES**

Rel. 1.0.0 01/08/2016; Firm: V3.1.0; Serial: H1AA00000; T=47.07 V=3.03

Mac Old Version BRIGHTNESS 7 (High) KINETICS MODE USER MANUAL LANGUAGE ITALIAN

Style-Player SINGLE BUZZER On Date/Time

MIDIFILE FAST PLAY MIDIFILE SAVE MIX SHOW AUTO LYRIC CHORD ON LYRIC UPDATE BACKUP

PFL TO PLAYER M.TRACK TO AUX DISPLAY SKIN

METRONOME VOICE SELECT 1 Save/Restart

By selecting a PDF file (file format that can contain both text and images, etc.) and then pressing **ENTER** you will have as well the chance to view its contents directly on the display or external monitor.

Easy to figure out how many applications are possible using the PDF format. Just to give some examples. Notation single or orchestral, Lyrics with traditional notation or Guitar Tab, Lyrics images with different points on Intro, Verse, Chorus, etc etc.. By the way these files are also associated with the operation of conventional AutoLoad media files (MP3, Wave, Midi). If we arrange a txt file (or PDF) with the same name as the audio or midi that we want to perform, the action of the command Start of MP3 files (or MIDI, Wave) will also activated text file (or PDF) as displayed in the image below.

*Warning: In order to display PDF file keep in mind to manage it as well you use a video. For properly display on external monitor remember to set **Movie/PDF To RGB** function.*



In this way, the file can be shown on the display of SD90 or on the external monitor. PDF scroll can be managed by Pop Up menu :



From PLAYER menu you can control these information

**-1/8:** Displays number of available pages of the selected PDF.

**-ZOOM - + :** Allows Zoom feature of the PDF file on the external monitor.

**-CLEAR:** Exit from PDF edit menu.

**-** : Page up/down scroll for PDF in use.

## PAGE UP/DOWN - +

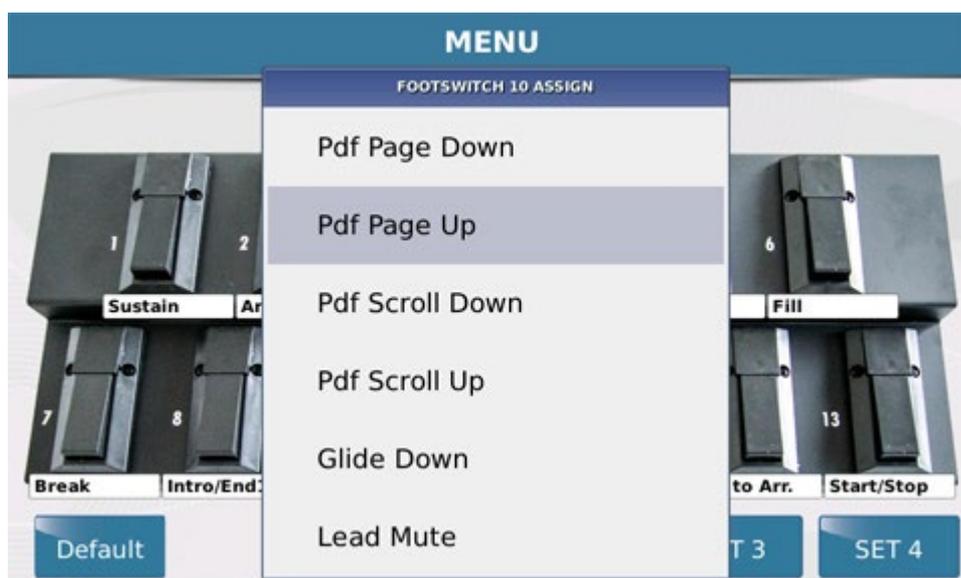
If you want to control PDF file from STYLE Menu you can access to the functions above mentioned by pressing CTRL PDF tab located on the left part of layout



You can control pages of the PDF even just touching the edge of the touch screen display in the lower right corner to advance or up to return to the previous page.



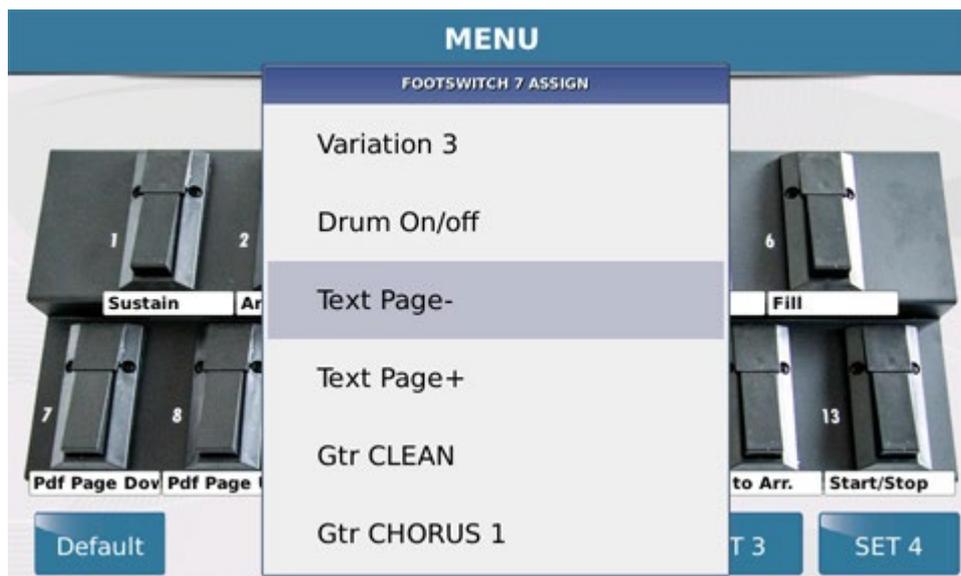
PDF scroll could be managed with external footswitch previously linked on **FOOTSWITCH** menu.



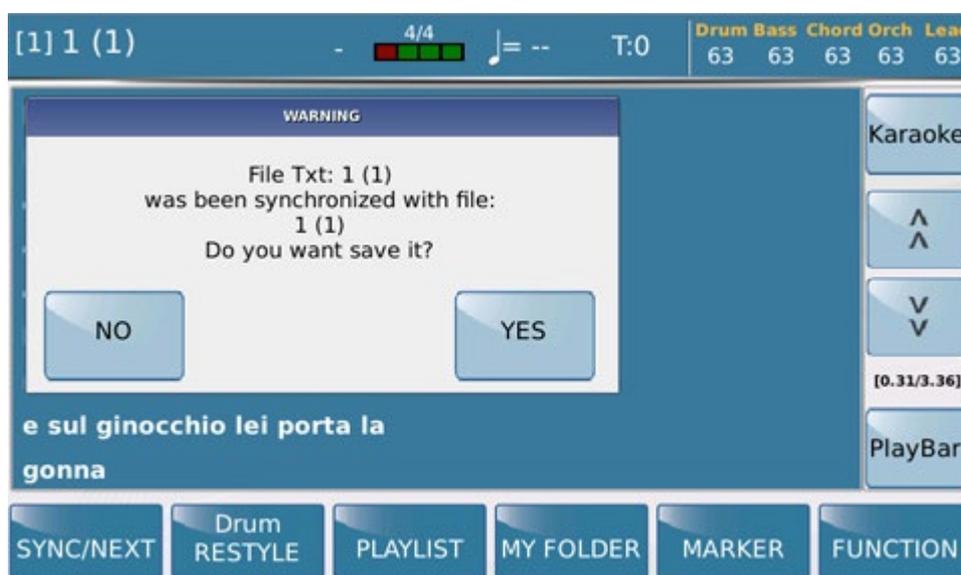
**Pdf Page Down** and **Pdf Page Up** buttons allow the "change page" function direct (forward and backward). If instead we use the functions **Pdf Scroll Up** and **Pdf Scroll Down** pages will "browse" button continuously until the switch will be hold on.

If we use TXT format (for lyrics or other text information, signs agreement, reminder etc.) we can handle it in

another couple of ways. The first and close to the previous section (PDF) with the restriction that only allows **Text Page -** and **Text Page +**.



The other mode provides the possibility of sync .Txt file with the corresponding (once associated) file midi or audio as explained previously. Once pressed **PLAY** of midi or audio file that will call the TXT file, press the **RECORD** button. You can scroll to the TXT freely while file running, either using the DIAL that with **FOOTSWITCH**. Once synchronization is complete, press the **STOP** button. The SD90 will ask to confirm what done on the file as displayed on the image below.



Warning: If you attempt to play Mp3 with TXT synchronized from previous Ketron instruments (Midjay and Midjay Plus) you can achieve compatibility in sync TXT just only if the MP3 is a Fixed Bit Rate feature and does not contain Meta Event inside.

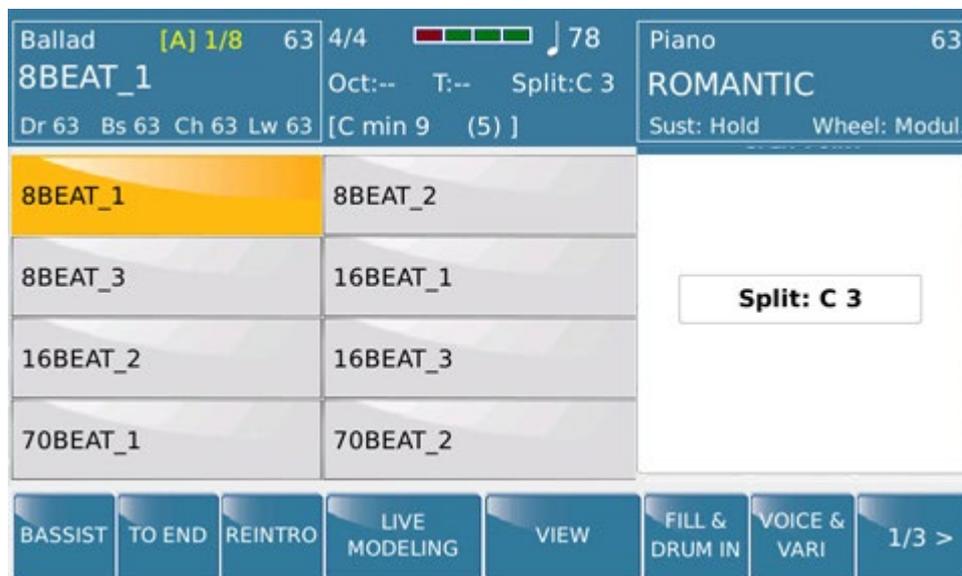


# Split



- **SPLIT**: Selecting this tab and pressing a note on the keyboard, Split area is determined from Lower section (left) to the Upper (right) of the keyboard.

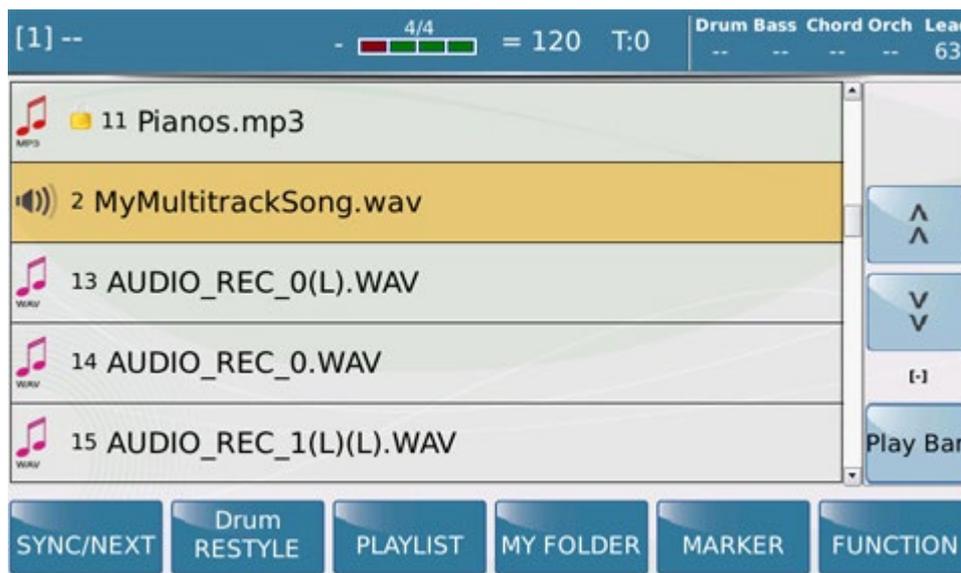
Here is the screen that appears when operating on this function:



After selecting desired Split Point release Split tab to return to the previous menu. The Split selection done will remain available until the next power on of SD90. To store this setting it will be necessary using the [SAVE CUSTOM/FACTORY STARTUP](#) feature.



# Audio Multitrack Mode



SD90 is able to play WAVE files (44.100 kHz - 16 bit) with properties as used in multichannel mode called Surround<sup>®</sup> 5 + 1. This means preparing a multichannel audio files with these characteristics SD90 can manage the various tracks independently (on volume) and in case of a specific track (always the last in numerical order of the project) on its individual output.

The wave file with these features will be displayed with a dedicated icon (MTR). These tracks can be managed individually via volume slider placed on the layout dell'SD90.



Sliders will manage file in this mode:

**PLAYER 1:** General Volume of selected audio file ( as well usually managed on Player 1)

**L & R :** Stereo track Background

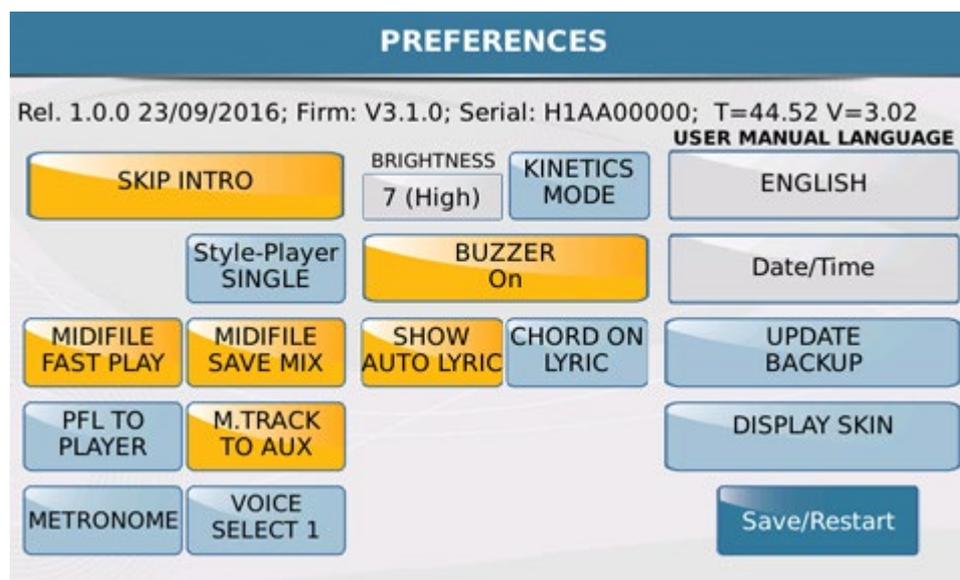
**3** = Individual volume for #3 track

**4** = Individual volume for #4 track

**5** = Individual volume for #5 track

**6** = Individual volume for #6 track or Metronome track (click)

If for example, we are using the track 6 for the metronome, we can assign it to a dedicated output using the Aux / Headphone out. In this way, selecting **M.TRK TO AUX** mode User can address track 6 (metronome or else ) on separate Out manageable also for multiple uses (Drummer Headphone, Single Out, Power Headphones split, etc).



In this mode, which we believe are truly innovative in this kind of instrument, SD90 becomes an unprecedented multitracks Audio device. This feature will allow to use PLAYER in all those music needs (stage, recording and more) where management Audio editable in real time as "Multi Purpose" is required. User can, for example, assign the singles out of metronome to the headphones of your drummer just to synchronize its execution according to your audio where at any time you can control volume of individual audio track for PA or other devices.

We would also suggest another interesting use of this function. Figure out that your song is inclusive of Sax and Guitar you can, whenever you need , exclude or level the chosen track. In the other hand if on your music band a musician for whatever reason is not available, here is that you could use "on the fly" the previously recorded track as an alternative of him .

These are just a couple of examples that will surely countless ideas and applications on your set-up music.

*Info:Track that you can assign on Aux / Headphone (for reasons of Audio Routing) must always be anyway track 6 of the project. It can carry any audio (Click, Bass, etc.) track for your Monitoring Mixing or custom needs. .*

*Audio files with these properties can be made using professional audio editor. Here are some software that can be used in this purpose: Sound Forge ®, Logic ®, AudaCity ®, Cubase ®, etc.*



# Midi Recording



From this menu SD90 can record on Midi mode (and Audio also) everything is played in real time from the keyboard (Left part, Right part or Full Keyboard) .In addition can record ARRANGER section also. The mode displayed on this picture is called SONG Mode. With it user can record freely (dependently of available memory) all notes, change of Voice, Controllers and else.

Start on Recording :

After pressing the icon given to Metronome, sets the speed of the desired BPM (120 bpm) using the Dial



If you want to record without the Arranger Section Arranger press RECORD to start



Once pressed RECORD button you can hear a Count OFF (a beat 4 before recording) to give you precisely the possibility to sync with the metronome and begin recording. During this perform, even if you already recorded some notes freely if Start of the Style will be activated SD90 will continue recording by adding precisely style with the arranger section.

*Caution: Pressing the style while recording enabled freely you will notice a sort of stumble due to the different BPM used by the Start Free to that instead belonging to the style used later. As already mentioned above if you have scheduled recording midi with the Style and Arranger operated before the record with STYLE SYNC command.*

In case of Recording SONG with ARRANGER Section, press the icon SYNC STYLE before starting the recording.



At this point, if you press RECORD button, this one will remain on standby (flashing) until you press the Start button for start recording.

Of course you can also use the controls related on Arranger (Keystart / Intro etc etc)

To stop recording, press START button again.

From this menu you can immediately listen to what you just recorded by pressing PLAY button .The recording done

needs to be saved by pressing the SAVE button however .



SD90 sets a default name (ordered chronologically ) after confirmation User can rename file and assign on SD90 memory.



At this point, created midi recording file will be playable on Player menu.



Here are the commands in this section we're going to explain:

**-MIDI:** Midi icon enables recording in Midi format including data from the keyboard (Part Right and Left part)

**-AUDIO:** Audio icon enables recording Audio format including data from the keyboard (Part Right, Left part, Style, Player, Audio Inputs)

**-SONG:** SONG icon enable recording (Audio or MIDI) in Song mode (depending of the internal memory size )

**-STYLE SYNC:** Enable Sync with the Style that will be recorded with notes played from the Right and / or Left. This function by the way available only in Midi Record mode.

**-PHRASE:** PHRASE icon prepares recording (Audio or MIDI) phrase with a measures length previously sets (1 to 8 just only on Midi case ) .This recording mode is suggested for music files playable as Loop for sequence background or Ostinato phrase .

**-BAR:** This icon represents measures enabled for PHRASE recording mode This feature is not available on Audio Song mode.

**-RECORD:** Pressing the Record icon to access on Audio or MIDI recording (Song or Phrase )mode (flashing icon). Once activated SD90 can begin to record immediately all data . In case of Style Sync recording will begin when Arranger Start will be activated. Record function is also triggered by Footswitch.

**-PLAY:** Is displayed and available only when recording is done.

**-METRONOME:** Once selected the dial allows you to adjust the Metronome speed available in PHRASE MIDI or MIDI SONG mode.

**-METRONOME LEVEL:** Adjusts metronome volume in combination with the Alpha Dial

**-REC VOL.:** Sets the Recording level. It simply tap and turn through the Dial to change the value of the level. On the top of the knob icon shows the value of the recording level to 0dB on middle position. On the left of the display, 2 bar level will show value in real time for the left and right channel.

## RECORDING PHRASE

PHRASE Recording, with a similar SONG way to use, allows to record events played on the instrument just in PHRASE mode. This feature is designed to record a sequence with a predetermined number of measure to play as a single Phrase or repeated as LOOP mode.



If set, as showed on picture, a number of 8 measures by using Bar tab on PHRASE mode SD90 will record just only up to 8 measures. This action will force to exit automatically from the method RECORD when 8 measure bar will be terminated

When recording will be completed SD90 will show as below :



You can listen what recorded using PLAY tab and / or correct events using quantization feature.

Once you set quantization type, using the values provided (8 / 8T / 16 / 16T / 64 Real Time) press QUANTIZE tab to apply it.



To save the recording press SAVE and confirm with the default name or with your own name.

SD90, related of Phrase mode used, will apply by default a suffix (L) as meaning of Loop.

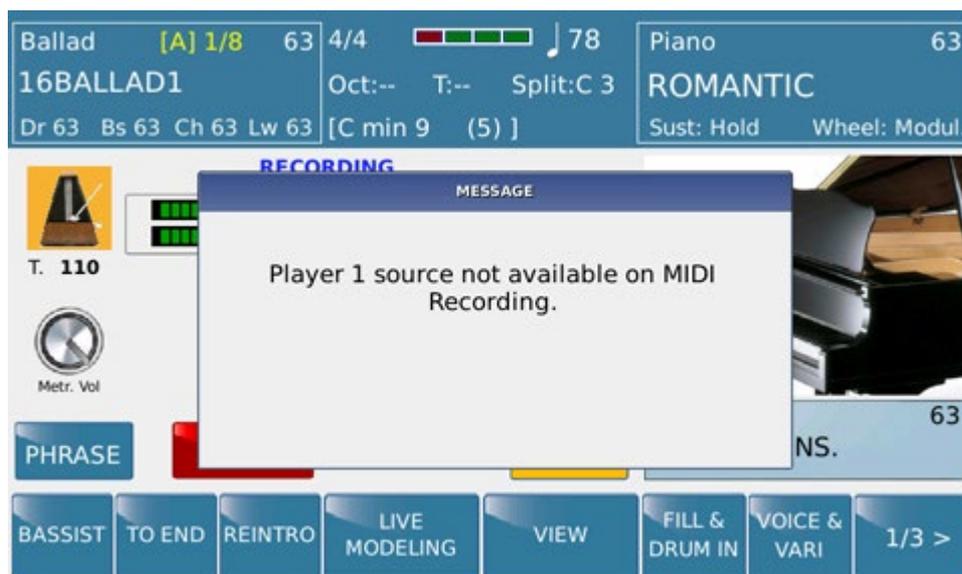


When procedure is completed file will be available with suffix (L) as showed.



This feature will be recognized automatically on SD90 that will play LOOPED automatically.

*Info: In Midi Record (Phrase or Song) mode record from the source player to I will be unavailable . However SD90 will show a warning message.*



## AUDIO RECORDING



# Audio Recording



From this menu SD90 can record on Midi mode (and Audio also) everything is played in real time from the keyboard (Left part, Right part or Full Keyboard) .In addition can record ARRANGER section also. The mode displayed on this picture is called SONG Mode. With it user can record freely (dependently of available memory) everythings played on keyboard even signal coming from Audio input such microphone or else

Start on Recording :

Simply enough activate REC icon and everything played on the keyboard or by the input signals will be recorded.



In the same mode User can also record within Arranger Section. Begin recording using a Style intro or freely play on keyboard then use a Style and its Arranger Section.

Assuming Audio Recording with the use of a source file from Player 1, select firstly file from the Player menu as displayed on the screen.



Once file is selected SD90 will be back on RECORD menu to start recording by pressing REC icon



Once completed press REC icon again. So now on display will appear a Waveform icon type (to represent the flow Audio just recorded) and PLAY icon lets here listen recorded file just without leaving AUDIO RECORDING menu.



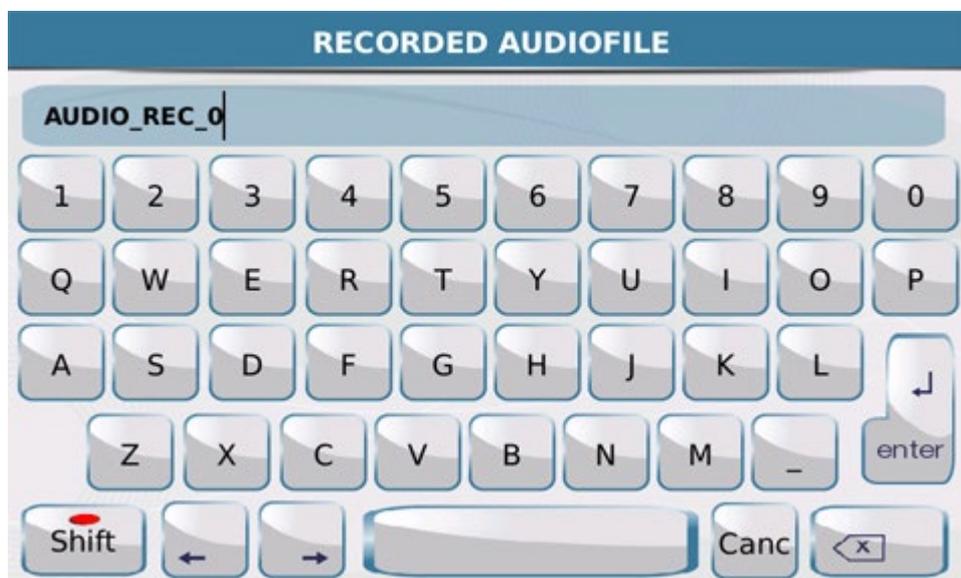
In case of a wrong recording User can back on Recording mode again from this view however.

Otherwise, pressing WAVEFORM icon you can access the **Audio Editor** menu for further editing on recorded track

Or saving SONG by pressing Save button on the right side of the display.



SD90 sets a default name (ordered chronologically ) after confirmation User can rename file and assign on SD90 memory.



At this point, created Audio recording file will be playable from Player menu.



Here are the commands in this section we're going to explain::

**-AUDIO:** Audio icon enables recording Audio format including data from the keyboard (Part Right, Left part, Style, Player, Audio Inputs)

**-SONG:** SONG icon enable recording (Audio or MIDI) in Song mode (depending of the internal memory size )

**-PHRASE:** PHRASE icon prepares recording (Audio or MIDI) phrase. This recording mode is suggested for music file playable as Loop for sequence background or Ostinato.

**-RECORD:** Pressing the Record icon to access on Audio or MIDI recording (Song or Phrase )mode (flashing icon). Once activated SD90 can begin to record immediately all data . In case of Style Sync recording will begin when Arranger Start will be activated. Record function is also triggered by Footswitch.

**-PLAY:** Is displayed and available only when recording is done..

**-REC VOL.:** Sets the Recording level. It simply tap and turn through the Dial to change the value of the level. On the top of the knob icon shows the value of the recording level to 0dB on middle position. On the left of the display, 2 bar level will show value in real time for the left and right channel

## RECORDING PHRASE

PHRASE Recording, with a similar SONG way to use , allows to record events played on the instrument just in PHRASE mode. This feature is designed to record a sequence with a predetermined number of measure to play as a single Phrase or repeated as LOOP mode..



As showed on picture SD90 is set on PHRASE recording Mode.

Press RECORD to start on record .

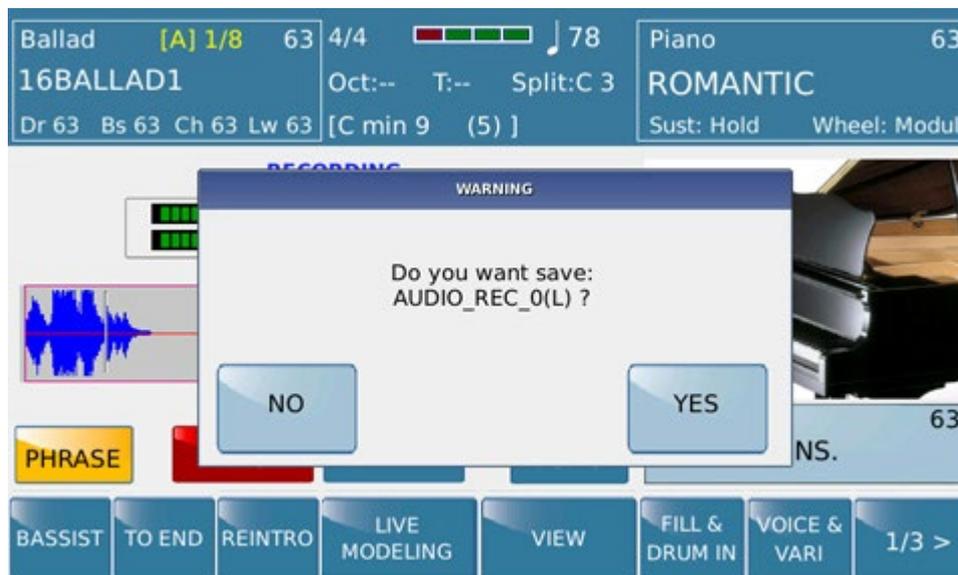
Once completed SD90 will show as below :



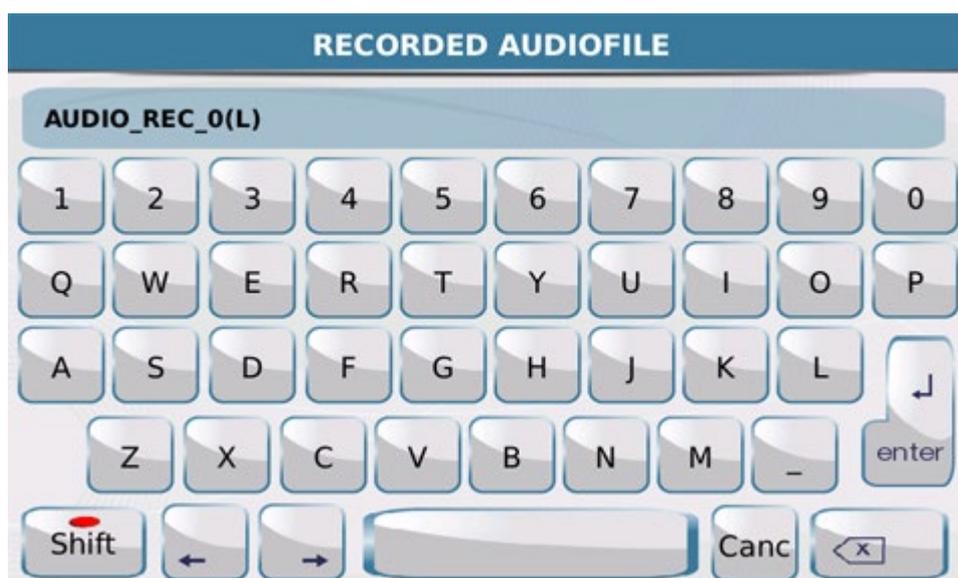
You can listen what recorded using PLAY tab just from this menu again.

Otherwise, pressing WAVEFORM icon you can access the [Audio Editor](#) menu for further editing on recorded track

Just to save you music work press SAVE tab and confirm with default name or your own title.



SD90, related of Phrase mode used, will apply by default a suffix (L) as meaning of Loop.



When procedure is completed file will be available with suffix (L) as showed



This feature will be recognized automatically on SD90 that will play LOOPED automatically.

*Warning : Mistakenly assuming that no audio signal is routed to Record Audio, ( Song or Phrase mode ) following screen will appear as below*



*Warning : Audio record mode is not available while you are using the Player 2. If so following message will appear*

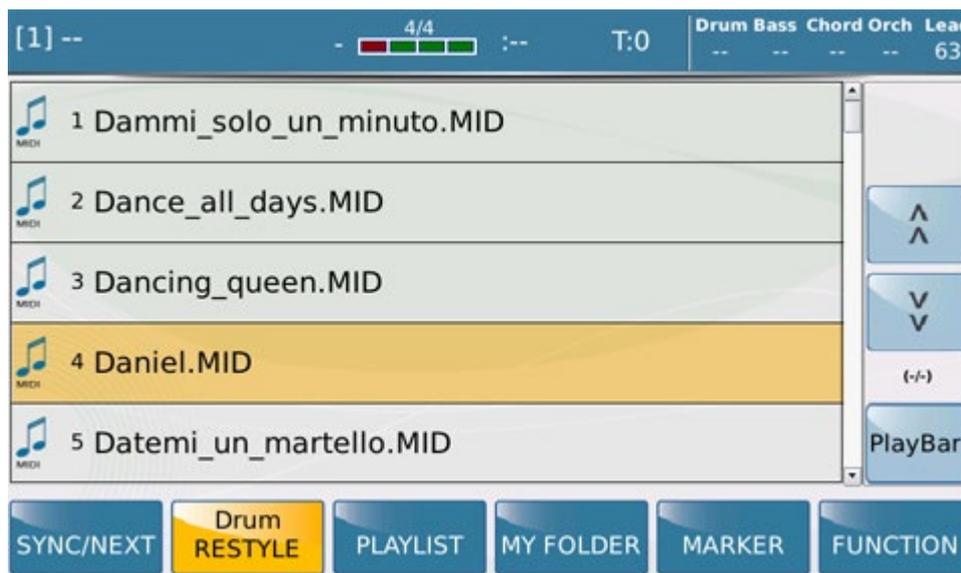


*Info: Recording Audio for matter of Edit and memory allocation can not exceed over 10 minutes of duration*

## MIDI RECORDING



# Drum Restyle



This cool feature allows you to customize on SD90 your midi file in a really creative and simple way. The function Drum Restyle allows you to associate on Midi file a style using all the various parts of it perfectly synchronized.

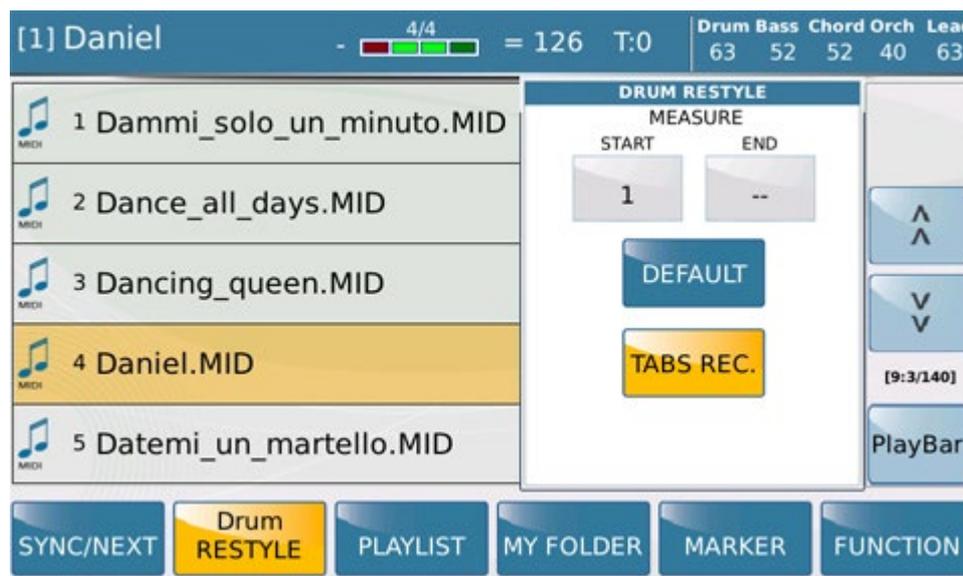
Choose from your directory a midi file press START to activate file and press Drum RESTYLE icon. After press it SD90 will display directory where choose your own Style to link.



Both elements are now being carried out simultaneously giving the possibility to customize your Midi file by adding the variations (A / B / C / D) or Fill / Break / End of the chosen style. SD90 by default is set as mode which allows you to record all changes in the style that you are going to perform.

*Info: SD90 on Drum RESTYLE mode synchronizes the BPM of the style with Midi file without change original time signature. If the Midi file selected is a 3/4 on time signature the style that you have to choose must be obviously with e same time signature. The function Drum RESTYLE however also elaborates different Time Signature (Ex: 4/4 vs 3/4, 6/8 vs 4/4)*

Pressing the **K.START** button SD will show the following screen:



We explain in detail the available features:

**MEASURE START/END:** In these two small boxes we assign through the use of the Alpha Dial measures from where the application Drum RESTYLE will be applied on Midi File.

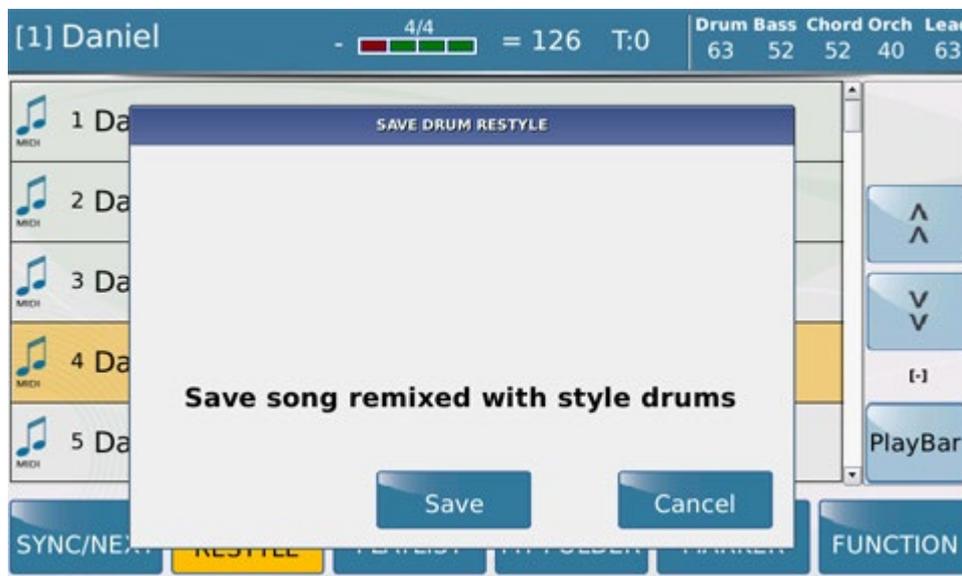
For example, if we decide to apply the Start from 16 to 64 measure this setting will mean in detail the Style applied will have only effective within these measures without changing the original part of the Drum midi files on the remaining measures.

**DEFAULT:** Reset immediately any settings made in the Start / END Measure locators

**REC TAB :** This command ( active on default) allows to record all variations of the style made by tab such Variation A / B / C / D / Fill, Break and End as well a new entry Style from other Family Style.

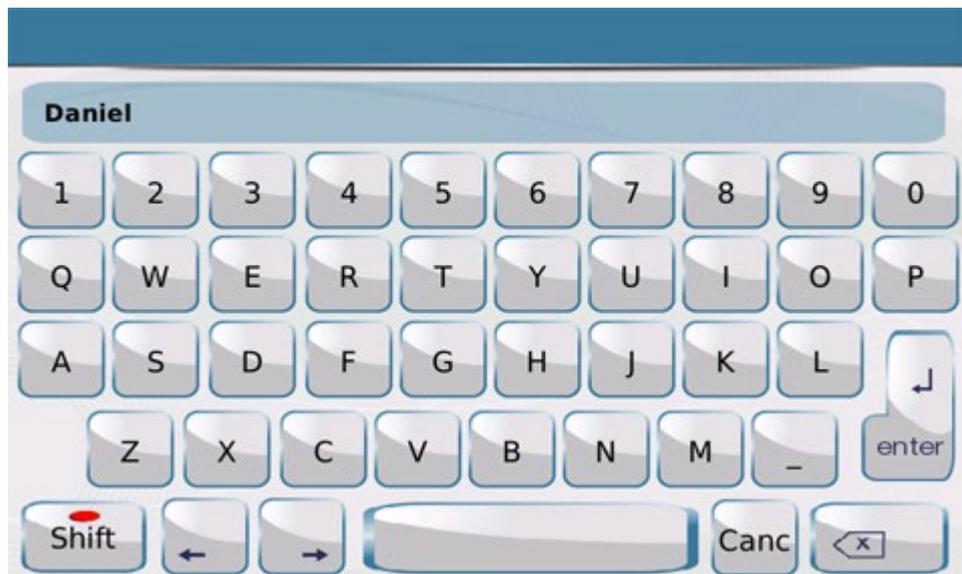
When recording is completed, press SAVE tab to save your project as Drum RESTYLE file.

This is screen view showed :



Confirming again with the SAVE tab SD will ask to rename your own file as shown in the following screen:

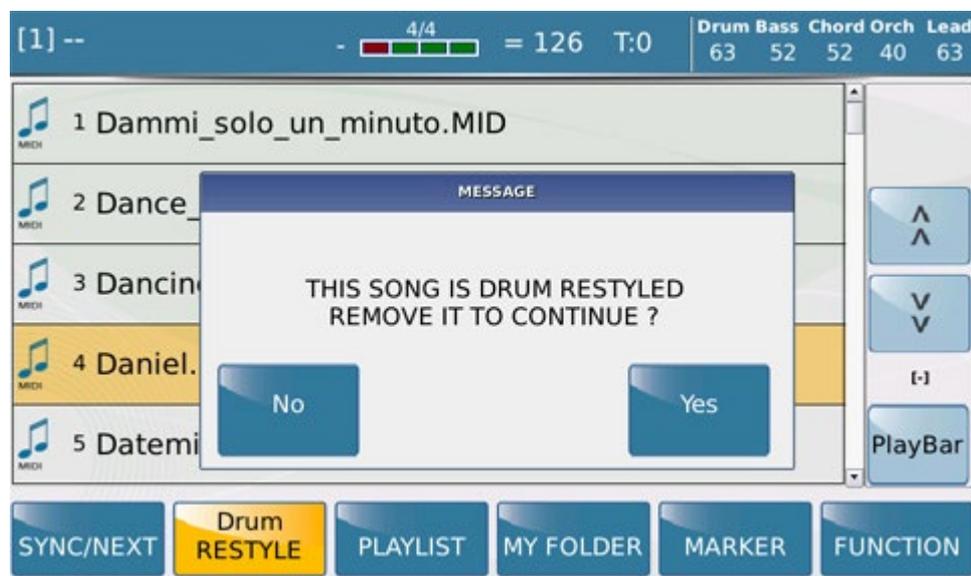
If press CANCEL instead of it procedure will be cleared .



SD90 as default carry same original midi files name in use allowing you to overwrite it directly or renaming it with a different name.

When procedure will completed SD90 will back on the Player screen view.

If the file saved with the Drum RESTYLE feature will be reloaded with the intent (or not) to rewrite (or remove) Style synchronization , SD90 will inform you with the following message:

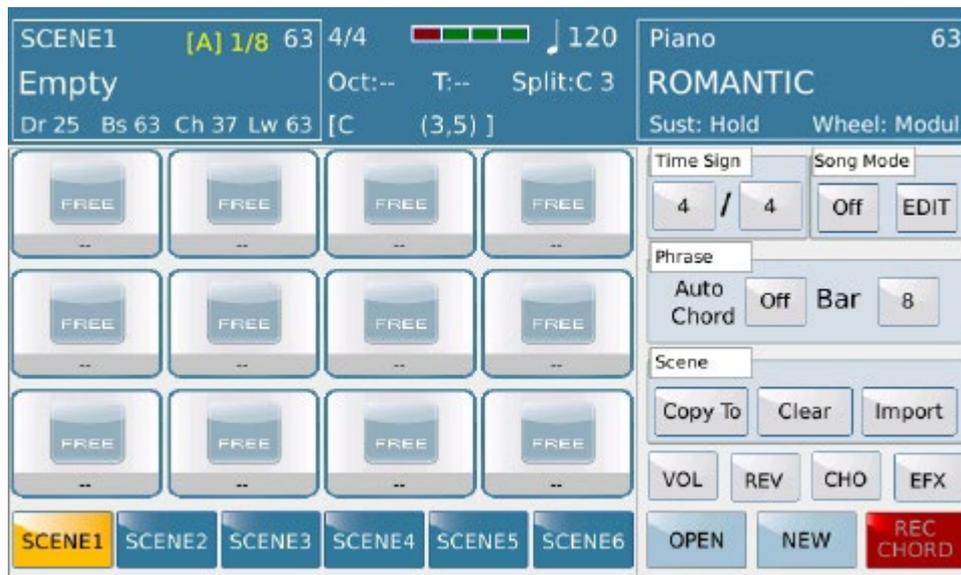


Confirming with YES SD90 prepares the file to the new recording or the total cancellation of the previous DRUM RESTYLE feature.



# -LAUNCH PAD-

## Introduction



LAUNCH PAD environment is absolutely 'something new' by Ketron which introduced for the first time in the SD 90. Is a structure where you can build sequences of various types using different formats (audio and Midi) where the only limit will be "your imagination". In detail this work surface can manage audio loops, instrumental phrases created by you or imported by the huge internal archive made available by Ketron. Just to give you few examples, you can create something with same way used in Arranger Section with all midi resources and therefore controllable in terms Time and Tune but outside the harmonics conflicts that unfortunately the arranger sometimes imposes. Unlike with the audio you can achieve harmonic and / or rhythmic structures where re invent your way of make entertainment. Figure out to cut audio part ( or slice ) from your favorite Hit (Intro / Chorus, Special, etc. Etc.) Put any of these components in dedicated PAD or its SCENE. At this point your Hit can be played in your way as you want it in real time, while enriching performances from time to time by adding tools, Riff, EFX and what your musical imagination will suggest, re design the song structure as you will want ..... all LIVE just in real time !!

LAUNCH PAD environment based on 12 pads for each one of 6 scenes for a total of 72 independent pads. Figure each pad such a depot for sequences (tables, tracks) music that can be assigned:

- 1) Tables midi taken from the internal database (see Modeling), or midi tables recorded on instrument by the user or programmed with a music editor on computer and then imported into the instrument (copy).
- 2) Audio Files in .wav format with sample rate 44100 /16 bit stereo format.

## HOW TO

Accessed by pressing the LAUNCH PAD Panel button.

Exits available by pressing LAUNCH PAD again (if played will be stop).

Press EXIT button to exit the menu. It do not turn off Menu ( LED on LAUNCH PAD is ON).

By pressing EXIT or LAUNCH PAD again Main menu is available yet.

## MAIN FEATURE

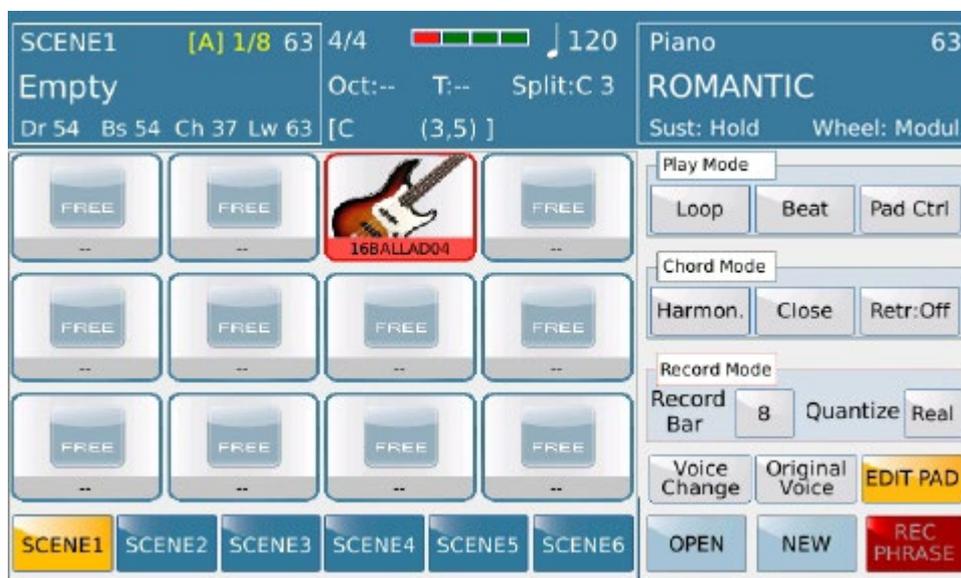
**-OPEN:** Active a menu where loading a complete LAUNCH PAD project , or rather all scenes with audio / midi sequences associated with on different pads plus all playing rules (which will be described later.).

**-NEW:**Clear memory of LAUNCH PAD current to allow the new construction from scratch.

**-TASTO SAVE (on display) :**Save the LAUNCH PAD project on disk rent on related LAUNCH PAD folder with .LSX extension

**- SELEZIONE DELLE SCENE :**Below the display there are buttons that allow you to select one of the 6 scenes available. On Start mode , the active pads of the scene, come into play at the beginning of the new measure at the same time (as works on Arranger Style).





## SINGLE PAD ASSIGN

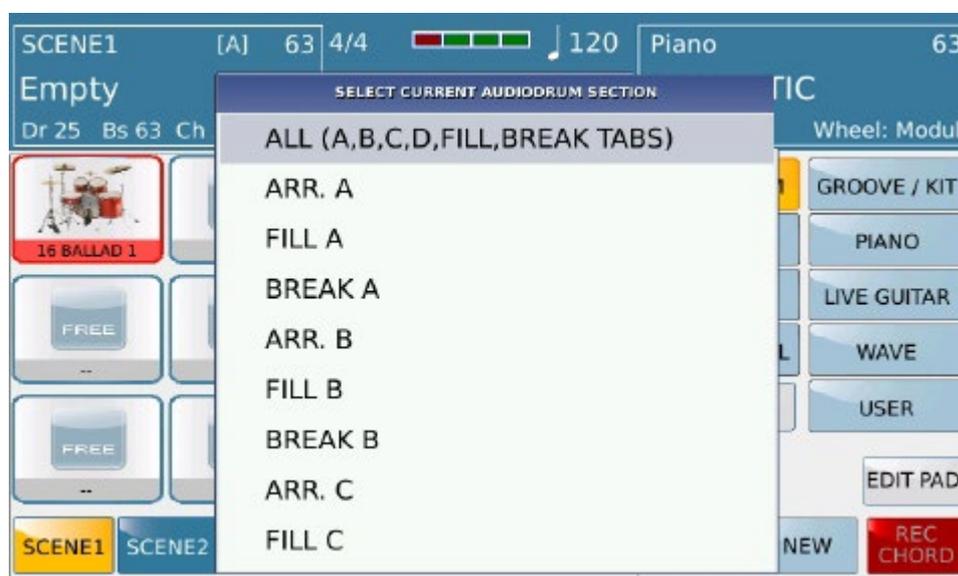
Pressing the inner area of a pad of any scene, it is surrounded by a red line and the right of the screen area will allow you to select, both in Start mode (automatically putting them in play) or when in STOP, different types of sequences:

- 1) **Internal Audiodrum** (Live Modeling) in .grv format and Livedrum / User Livedrum (Audya streaming format)
- 2) **Internal Midi Groove** tables (Live Modeling)
- 3) **Drum kits** (details will be explained later)
- 4) **Bass, Piano, Guitar, Orchestral / Synth** internal tables (Live Modeling and user Live Modeling).
- 5) **Live Guitar** (can be assigned to more than one pad but it will sounds one at a time)
- 6) **User Tables** recorded or saved by the user (0 midi file format, single channel, 480 ticks / quarter note resolution).
- 7) **Wave Files** (up to a maximum of 3 per scene).

All types of tables are divided into families based on the represented musical genres.

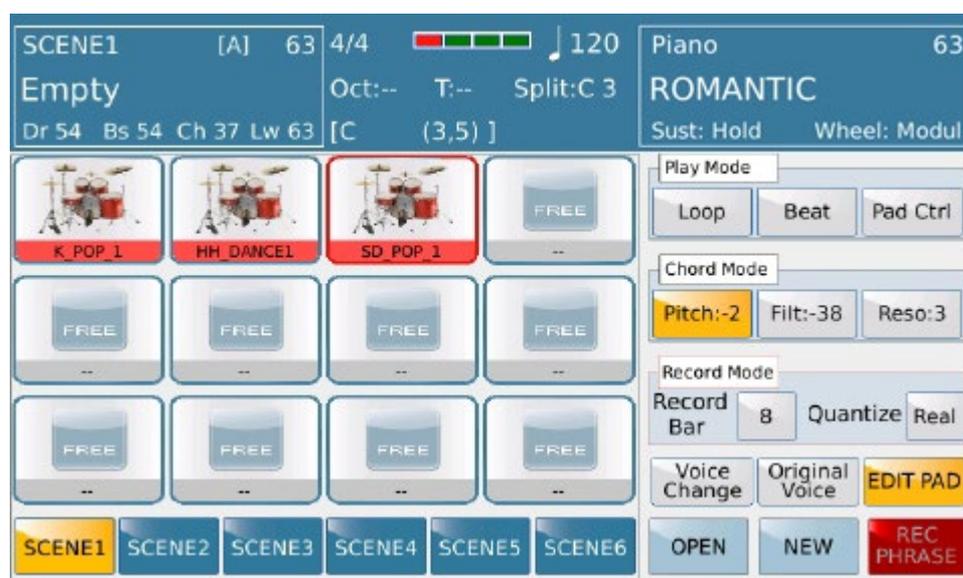
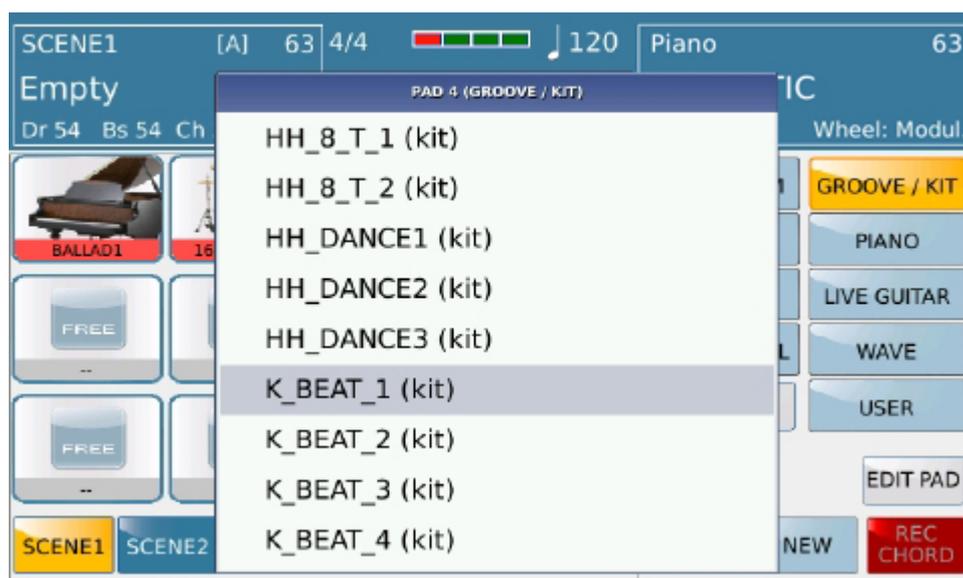
**CLEAR** button remove table assigned on pad.

## Audiodrum:



Audiodrum are categorized. Once your Audiodrum Is selected you could assign the whole Audiodrum to the pad, in this way the transition from one section to another is available by A B C D buttons of the arranger or by selecting the Audiodrum and holding down you can select the single section arranger to play. On the Audiodrum section are also Livedrums Menu, which is in detail the audio streaming rhythm unit .

## Groove / Kit:



Press **GROOVE / KIT** to access on the internal Groove machine library. Special mention for the first item: "DRUM KIT LOOPER".

Selecting this item leads to a list of drum instruments Kick, Hi-Hat, Clap, Rimshot, Snare, Tom in different cadences taken from various musical genres.

It allows you to create a drum set using several pads where each one is associated with a drum instrument. Each tool

is controllable independently.

## **Bass,Piano,Guitar,Live Guitar,Orchestral:**

Using these buttons you can access on the internal library of SD 9. To make searching menu much easier all loops are divided into families.

**N.B.** *You can add more than one live guitar per scene, but will play only the last selected, turning off automatically the previous one.*

## **User:**

In this section you will find all the tables available in the environment or added by you (midi file format 0, single channel, resolution 480 ticks / quarter note). Files must be located on "/ LAUNCH\_PAD / RESOURCES / USER /". For your best organization of these files you can create another level of folders also.

## **Wave:**

In this section you will find all the wave (44100 Hz 16-bit) available on "/ LAUNCH\_PAD / RESOURCES / WAVE /". For your best organization of these files you can create another level of folders also.

## **HOW TO USE PAD**

Once a table is assigned on pad (sequence) it will start playing in sync with all the other from the new measure (if Start is On).

Pressing on a pad with a sequence (active pad) you can mute / unmute thereof.

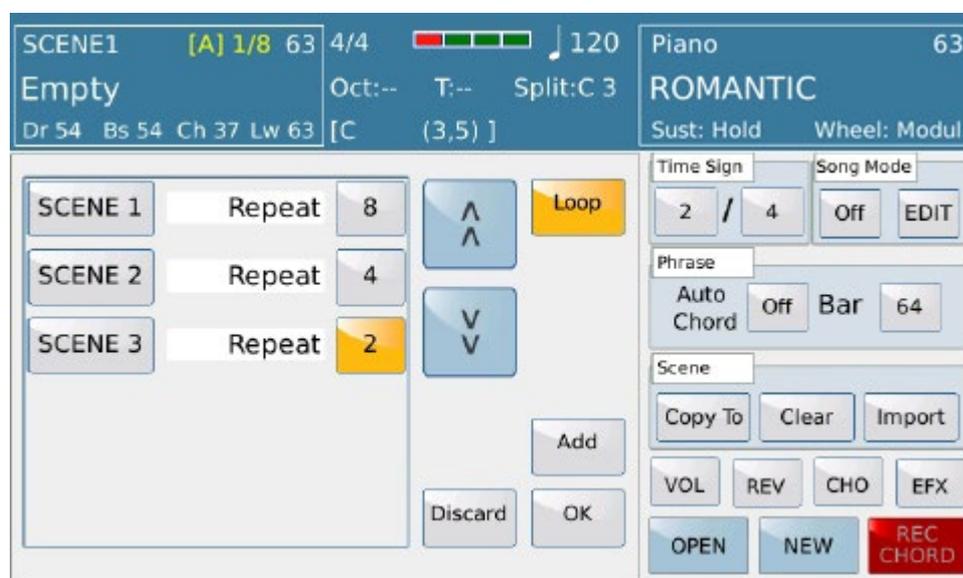
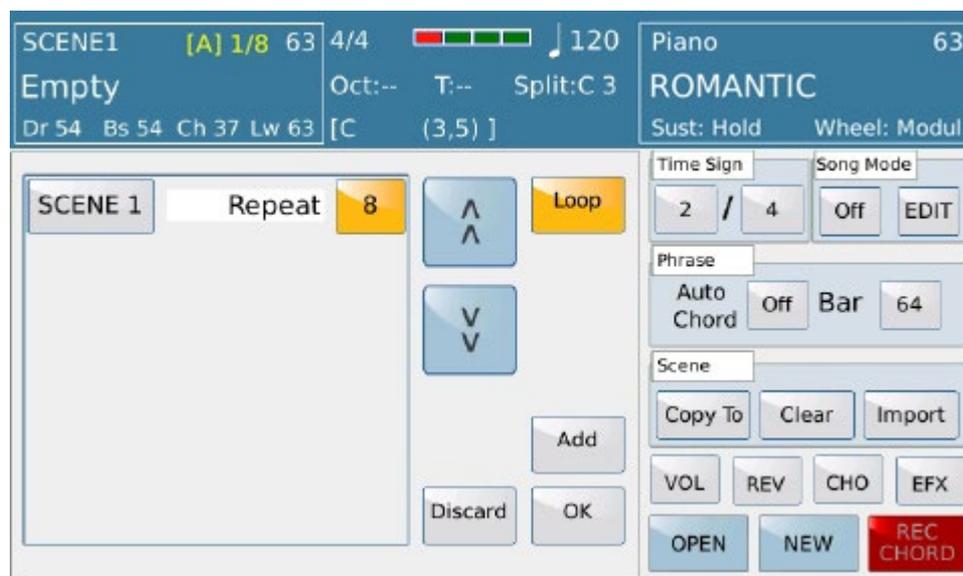
To change the sequence of an active pad just hold the pad for about 1 second. It will activate the selection menu where choose a new one.

**TEMPO** + and – button allows you to speed up / slow down each scene independently.

## **MAIN MENU**

- **TIME SIGNATURE**: you can assign a time signature for each scene.

- **SONG MODE**: If "On" it allows timing the scenes in order to create your own song. Using the EDIT key opens the menu which allows timing of the different scenes



## Song Mode Edit menu:

- **SINGLE / LOOP:** This button is used to determine whether the sequence of scenes will stop when arrived at the end or start again .
- **ADD:** The button adds a part on sequence where you can set a scene and how measures it will play (Repeat) automatically. Once these measures is played, the sequence goes to the next phase or stops if last.
- **DISCARD:** This button clear all edited part
- **OK:** This button confirm all edited parts and leave main Edit menu

At this point, putting to "On" the Song Mode and giving start on LAUNCH PAD, these parts of the scenes are performed in succession as set on edit.

- **PHRASE:** In the LaunchPad you can automate a chord sequence previously recorded by "REC CHORD" button located at the bottom right on the display. Before starting Chord recording of the agreements specify how many measures you would record on its "BAR" (1 to 64). Switch on the REC CHORD button and press Start. Now you can record (on the left part of SD 9) your own chord sequence left to harmonize the various pads according to the properties assigned to each pad as described below (Parallel / Close Retrigger). At the end of the specific measures SD 9 exits from recording mode and immediately starts playing the chord sequence.  
**Autochord On/Off** enable or disable autochord mode.

- **SCENE:** Submenu Scene allows to Copy, erase scenes even import tables from selected style.

- **Copy To:** Copy current Scene on selected icon from Pop up menu available by press on tab.

- **Clear:** Clear a whole selected Scene (even active pads) on internal memory (not from Disk)

- **Import:** Very powerful utility that allows you to import entire sections from the style by choosing among the various parts of itself. Pressing this button gives access to a selection menu of parts to import from the selected style.



On left you can select parts of the current style.

- **Select All** :Select all parts automatically

- **ARR.A**: Open a menu where choose style section to import INTROS, ENDING, FILLS, ARR..

- **Discard**: Discard all operations and leave this Edit menu

- **OK**: Once extract leave Edit menu and combine every midi table of the style on Pad as set on previously.

# PAD PARAMETERS CONTROLS

SCENE1 [A] 1/8 63 4/4 120 Piano 63  
Empty Oct:-- T:-- Split:C 3 ROMANTIC  
Dr 54 Bs 54 Ch 37 Lw 63 [C (3,5)] Sust: Hold Wheel: Modul.

FREE	FREE	16BALLAD04	FREE
FREE	FREE	FREE	FREE
FREE	FREE	FREE	FREE

SCENE1 SCENE2 SCENE3 SCENE4 SCENE5 SCENE6

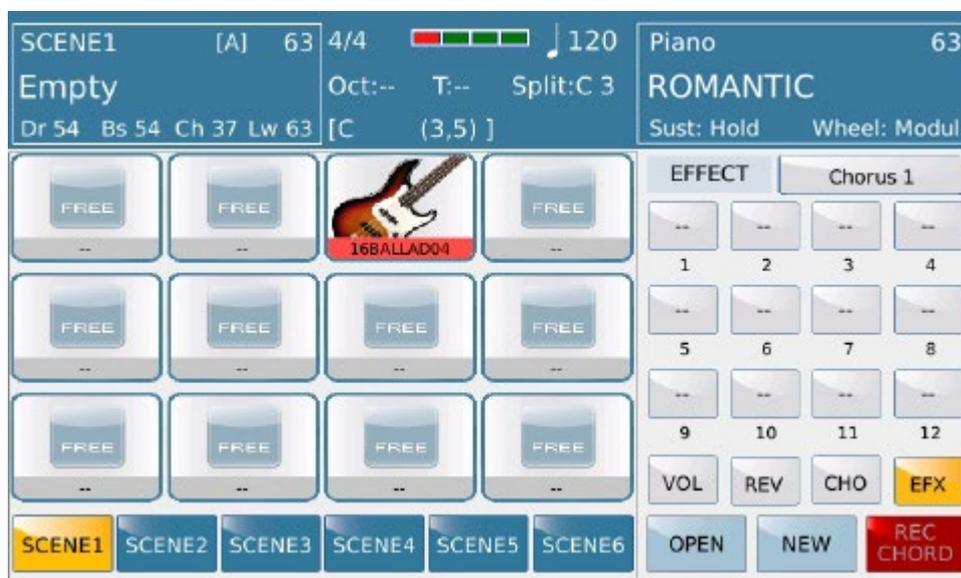
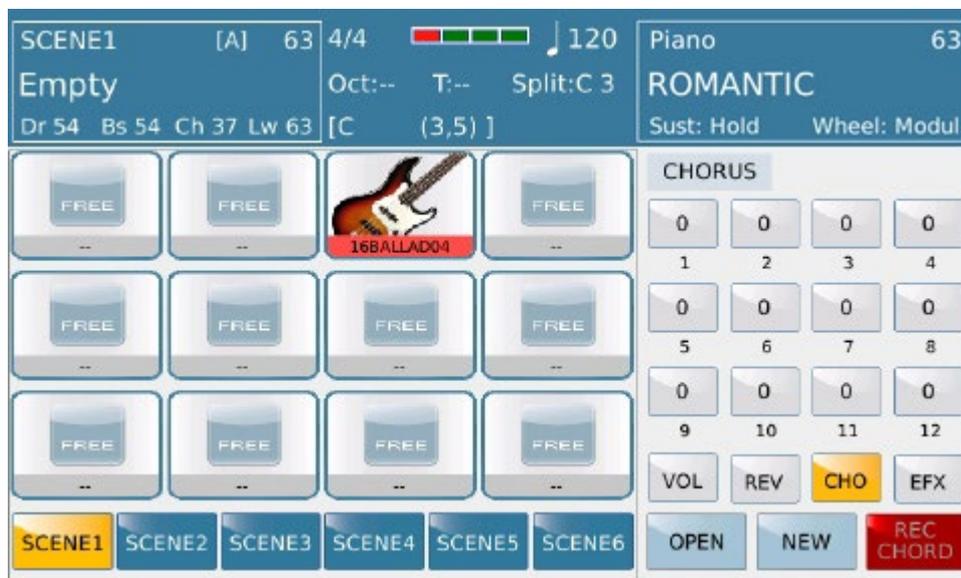
VOLUME				Sidechain
105	100	100	100	
1	2	3	4	
100	100	100	100	
5	6	7	8	
100	100	100	100	
9	10	11	12	
VOL	REV	CHO	EFX	
OPEN	NEW	REC CHORD		

SCENE1 [A] 63 4/4 120 Piano 63  
Empty Oct:-- T:-- Split:C 3 ROMANTIC  
Dr 54 Bs 54 Ch 37 Lw 63 [C (3,5)] Sust: Hold Wheel: Modul.

FREE	FREE	16BALLAD04	FREE
FREE	FREE	FREE	FREE
FREE	FREE	FREE	FREE

SCENE1 SCENE2 SCENE3 SCENE4 SCENE5 SCENE6

REVERB				
50	50	50	50	
1	2	3	4	
50	50	50	50	
5	6	7	8	
50	50	50	50	
9	10	11	12	
VOL	REV	CHO	EFX	
OPEN	NEW	REC CHORD		



Volume, Reverb, Chorus and EFX can be controlled on every pad

On **VOL** menu on the right part you can activate the Sidechain effect of the selected pad (On) that reproduces the typical effect of house music (Fast volume increase / decrease).

## Single Pad propriety

For any of 72 pad you can set a different way to use.

From the sequences menu of the selected pad by pressing EDIT PAD button gives access to a 3 different sections: : **Play Mode, Chord Mode, Record Mode** plus two button such Voice Change and Original Voice.

- **PLAY MODE** :You can select between Loop, Single, Key Mode.:

- **LOOP**: Sequence is played repeatedly by recycling from the start until the Stop button is pressed

- **SINGLE**: Sequence will stop automatically when it reaches the end. Pressing the pad it begins again.
- **KEY MODE** :Pressing and holding the pad Sequence continues to play, quit pad to Stop sequence. Use this way to enter on Pad properties also.
- **BEAT/BAR**:Allows Sync between Pads when used on Play or Mute mode.  
On Beat mode mute is disabled on any start measure.  
On Bar mode mute is removed on any start measure.

**-PAD CONTROL**: Press this button to opens a menu where you can choose how any pad can operate among other pads.

**Off**: To Mute pads when it play

**On**: To enable Pads when it play..

Feature will be ignored if not assigned on pad. Reset All button restore default set "--" where pad will not operate among other pads



**CHORD MODE**: Enabled for all tables except Groove, Drum kit, Audiodrum, Wave, Harmonic/Melodic.

**-HARMONIC**:Pad follows arrangements on the same way as played on keyboard style.

**-MELODIC**: Pad follows sequence as well is done without any kind of chord adaptation  
Only on Melodic mode Root selection is allowed by Trnsp button

**-PARALLEL/CLOSE**:Only on Harmonic mode user can select Close or parallel Chord recognition (see on Style section).

**-RETRIGGER On/Off:** When active sequence note will be retriggered if Chord is changed (see on Style section).

## - CHORD MODE on DRUM KIT:

**Pitch:** Kit Pitch is allowed.

**Filter:** Kit Filter (open or closed) is allowed

**Reso:** Resonance filter is allowed when selected

**-VOICE CHANGE:** Voice Change button allows to change voice on selected pad (Timbre selection allowed on related menu).



**-ORIGINAL VOICE:** Allows to restore original VOICE on sequence or Drum Kit.

**-RECORD MODE:** User can assign a real time sequence on Active (or un active) Pad (icon show FREE).

**-RECORD BAR:** Allows to set recording measures ( from 1 to 32) .Record will Stop automatically when measure set is achieved

**-QUANTIZE:** Allows Quantize event feature before to start record:

**-REAL:** Real time event mean no quantize

**-4,4T,8,** etc: Different set of quantize available .

*Info: Quantize feature must be set before to star recording Quantize will be applied when recording will Stop*

## HOT TO RECORD:

Once Pad is select and parameters are assigned press **REC PHRASE** button.

If Pad is already assigned as sequence a pop-up s shown if delete ( or keep) sequence recorded previously just in case of overdub mode. (Sequence is erased only from the pad memory. It still remain available in the menu).

Here you can assign a timbre on pad to record using the Voice button Change.

## -Start to record

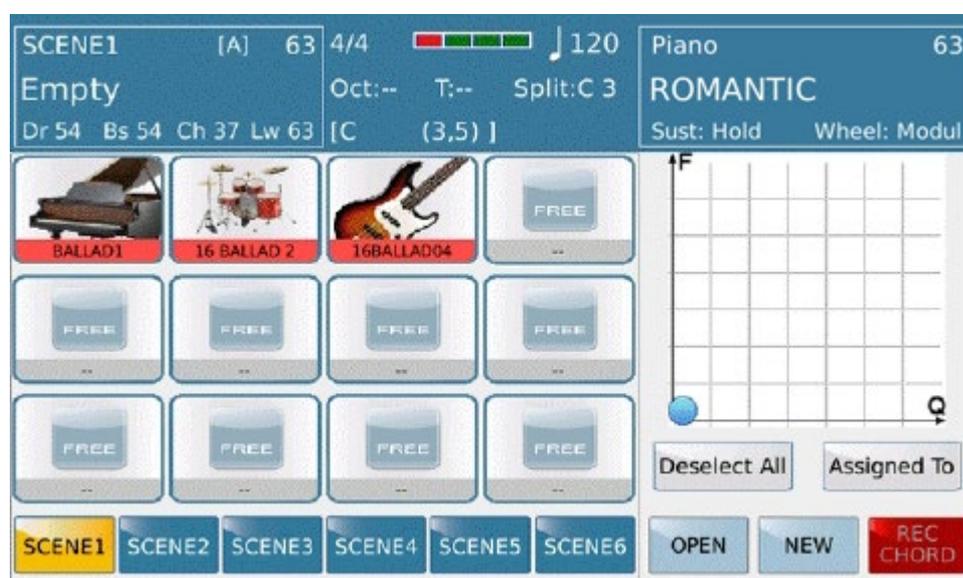
If on Stop mode press Start button to begin Count in ( one measure) just to sync your own recording.

If on START record begin when a note on keybed is pressed .

Once you think recording is completed press the SAVE button to save and named your work on internal memory Sequence will be saved on **USER LAUNCH PAD.** folder.

## LIVE EFX

On LAUNCH PAD, LIVE EFX feature allows to control Filter and Resonance by using “Assign to” button It can operate as single or global way.



## EXPORTING STYLE INTO LAUNCH PAD SECTION

This feature allows you to export a style from ARRANGER section to launch padSection . A once exported the style (in its 4 variations on Launch Pad Section you can manage it as you want by adding or modifying all its parts. You can of course add in this project Audio files (stereo wav 44,100.16 bit) as well as' midi files and / or resources from **LIVE MODELING**. This menu will allow you 'to use these variation on this platform in the same mode as well you operate on Arrangments section with chord recognition mode

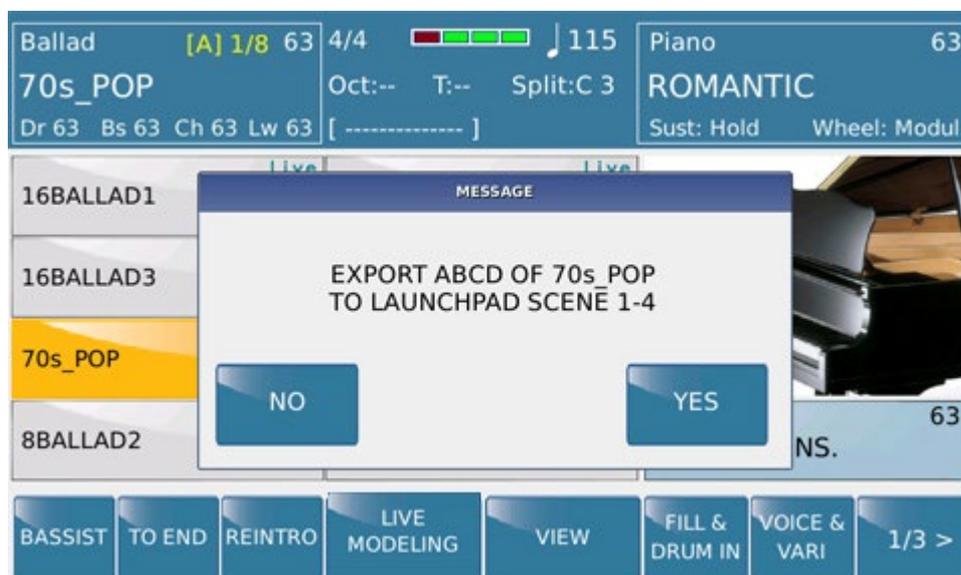
Here's how:

Choose the style you want to export:

:



Run the Style in PLAY mode and press the tab **LAUNCH PAD**



With the YES command you export all **A B C D** parts of the style in a new **LAUNCH PAD** project  
NO tab clear the operation.

After pressing YES, SD 9 show the **LAUNCH PAD** environment with all parts exported on 4 different  
**SCENE**

Ballad [A] 1/8 53 4/4 115 Piano 63  
70s\_POP Oct:-- T:-- Split:C 3 ROMANTIC  
Dr 63 Bs 63 Ch 63 Lw 63 [C (3,5)] Sust: Hold Wheel: Modul.

60 BEAT_115	MARAC BOSSA1	Dark	Dark Grand
FREE	Jazzy	Soft Strat	Warm
CNTRY BEAT 1	FREE	FREE	FREE

SCENE1 SCENE2 SCENE3 SCENE4 SCENE5 SCENE6

Time Sign 4 / 4 Song Mode Off EDIT  
Phrase Auto Chord Off Bar 8  
Scene Copy To Clear Style Import  
VOL REV CHO EFX  
OPEN NEW REC CHORD

Ballad [A] 1/8 53 4/4 115 Piano 63  
70s\_POP Oct:-- T:-- Split:C 3 ROMANTIC  
Dr 63 Bs 63 Ch 63 Lw 63 [C (3,5)] Sust: Hold Wheel: Modul.

60 BEAT_115	SHAKER 4	Dark	Dark Grand
FREE	Pop Fast	Soft Strat	Strings Ens.
CNTRY BEAT 1	FREE	FREE	FREE

SCENE1 SCENE2 SCENE3 SCENE4 SCENE5 SCENE6

Time Sign 4 / 4 Song Mode Off EDIT  
Phrase Auto Chord Off Bar 8  
Scene Copy To Clear Style Import  
VOL REV CHO EFX  
OPEN NEW REC CHORD

SCENE3 [A] 1/8 63 4/4 115 Piano 63  
Empty Oct:-- T:-- Split:C 3 ROMANTIC  
Dr 63 Bs 63 Ch 63 Lw 63 [C (3,5)] Sust: Hold Wheel: Modul.

60 BEAT_115	MARAC BOSSA1	Dark	Dark Grand
FREE	Chorus Fast	Soft Strat	Magic
CNTRY BEAT 1	FREE	FREE	FREE

SCENE1 SCENE2 SCENE3 SCENE4 SCENE5 SCENE6

Time Sign 4 / 4 Song Mode Off EDIT  
Phrase Auto Chord Off Bar 8  
Scene Copy To Clear Style Import  
VOL REV CHO EFX  
OPEN NEW REC CHORD

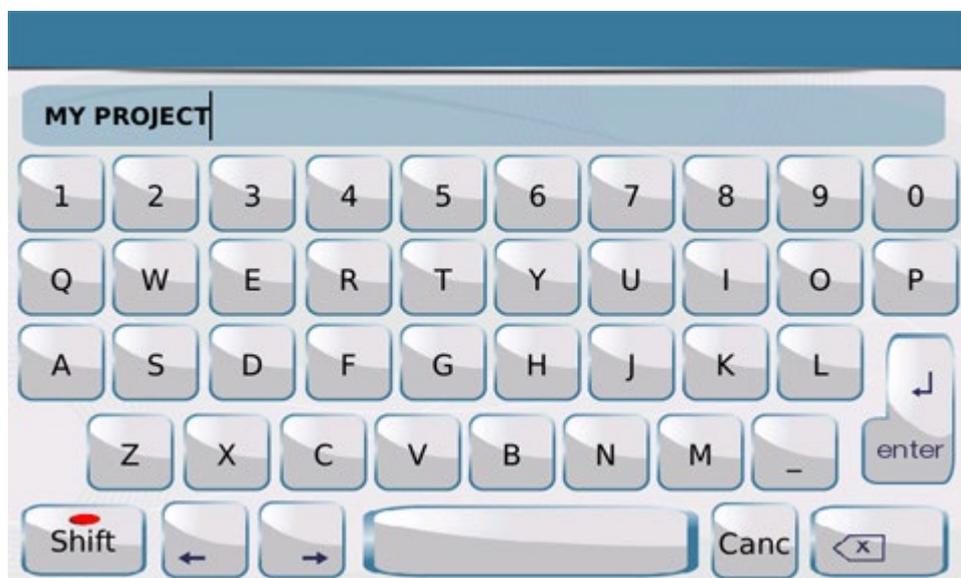


So now you can enter the musical resources that you want, as described above, within the project. Audio drum, midi and other will transform your **LAUNCH PAD** project into what you wanted musically. Then press the **SAVE** tab to store what you have done in SD 9



You can assign a name that will be saved with the extension. **LSX**: (Launch Pad Project)

:



In this way your project could contain music data from the most elaborate style to the Loop /Song or else alike for your performance.

*IMPORTANT: The additional resources wave and / or midi that are imported into SD 9 launch pad for your own projects should be allocated in the folders belonging to the path folder **LAUNCH PAD** / **RESOURCES** of the internal memory. Create a subfolder where neatly allocate all the resources that are part of the working project .*



## [Arranger Setting](#)





# My List

MY LIST [A] 1/8 63 4/4  78		Piano 63	
80S_DANCE		ROMANTIC	
Dr 63 Bs 63 Ch 63 Lw 63 [ - - - - - ]		Sust: Hold Wheel: Modul.	
80S_DANCE	APRESKI	BALLAD	POP
BALLERMAN	COMPILATION	DANCE	PARTY
DANCE_1	DANCE_2	ROCK&ROLL	COUNTRY
DISCO_70_1	DISCO_70_2	SWING	LATIN
DISCO_FOX	DISCO_SAMBA	UNPLUGGED	FOLK
		USER	MY LIST

As already mentioned on STYLES page SD90 offers a new feature that we really useful for the management of Styles. MY LIST menu allows you to allocate the Styles that use more frequently on 64 locations "ready to use". This will avoid annoying search among the various families Style. It recall exactly Style needs to use in your performance.

MY LIST default offer all location already with preset .Of course you can create your own MY LIST overwriting these memory locations. The procedure is quite simple. Selected as shown in the photo below a location holding down the icon for a while.

MY LIST [A] 1/8 63 4/4  120		Piano 63	
DANCE_2		ROMANTIC	
Dr 0 Bs 0 Ch 63 Lw 0 [G 9 (5) ]		Sust: Hold Wheel: Modul.	
DANCE_2	BOGALOO		
BALLERMAN	CUMBIA_PARTY		
BOOGIE	CANADIAN_FOLK		
BIG_BAND_2	ENGLISH_WALTZ		
		2nd Voice 63 STRINGS ENS.	
FILL1	FILL2	FILL3	FILL4
BREAK1	BREAK2	BREAK3	BREAK4
2/3 >			

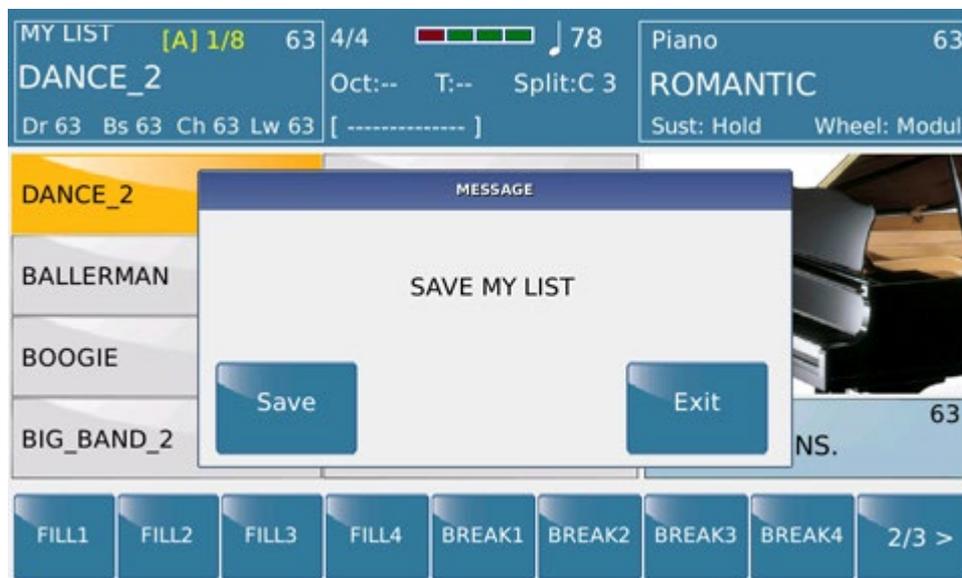
After a while the screen will show a choice menu of style in their families.



Once you find the style you want, press the icon. Automatically will be copied on the location from which you started MY LIST. By this way you can allocate as way order your Style set up to 64 favourite locations scrollable with the alpha Dial.



Of course what has been done is temporarily stored in the MY LIST and must be confirmed with the SAVE feature.



In the other hand, pressing the EXIT command, you'll come out from MY LIST menu and all informations will not be stored.

*Info: MY LIST data are saved in the internal memory of SD90 just after pressing the SAVE command. In this way will never be deleted at shutdown of SD90 or altered thru Update procedure.*

## [Arranger Setting](#)

### [STYLE](#)



# VOICE LIST



SD90 offers this feature really useful for the management of the Voice. The VOICE LIST menu allows you to allocate the Voice that you use most often on 24 locations at hand. This will avoid frantic search in the various families VOICE to call just one or ones VOICES who are more used to use in your Performance.

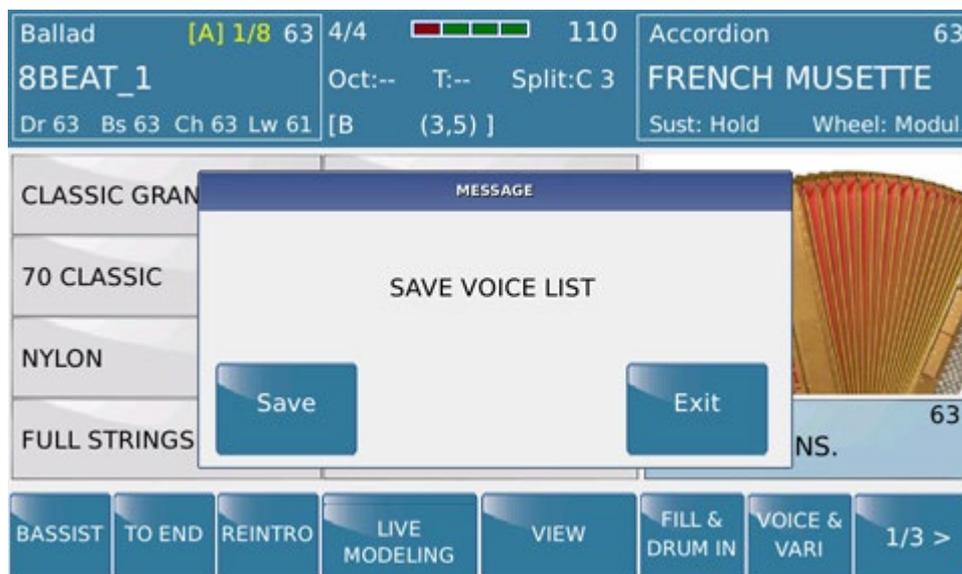
The default VOICE LIST offers 24 locations already preset. Of course you can create your VOICE LIST overwriting the locations already used. The procedure is quite simple. Selected as shown in the photo below a location (already used) by holding down the icon for a while.



After a while the screen will show menu choice of VOICE in their families (the LED of VOICE LIST tab will flash).



Once located Voice desired press the icon to store it. Now press the Save tab to save on VOICE LIST from which you started. On this way you can allocate in preferential order your VOICE up to 60 favourite locations scrollable with the Alpha Dial.



Otherwise, pressing the EXIT command, you come out from the menu VOICE LIST and the information will not be stored.

*Info: Information on the VOICE LIST are saved in the internal memory of the instrument just only after pressing the SAVE command. In this way will not be deleted at shutdown of SD90 or altered in any further Update procedures.*

## [Voice Mode](#)



# Harmony



This menu appears by pressing for a while Harmony button



In this screen we find a number of presets that can be used with the VOICE .



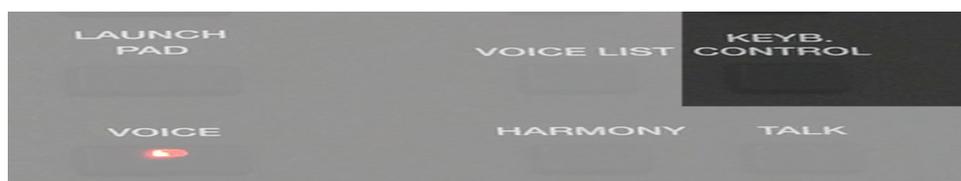
HARMONY presets, as showed above, perform special effects respectively on the VOICE that are used on SPLIT Mode. HARMONY take reference from chord played on LEFT part of the keyboard. It will execute harmonic intervals (dictated by the chosen preset) with the tone you are using as RIGHT VOICE.



# Key Control



This menu appears by pressing Key Control button when STYLE environment is active



In this menu are a number of features that can be used with the VOICE.

**-AFTERTOUCH:** Enable Aftertouch on selected Voice. The effect is operating in relation to the parameter (LFO, Soft LFO, BEND, Off) stored on Edit Voice menu.

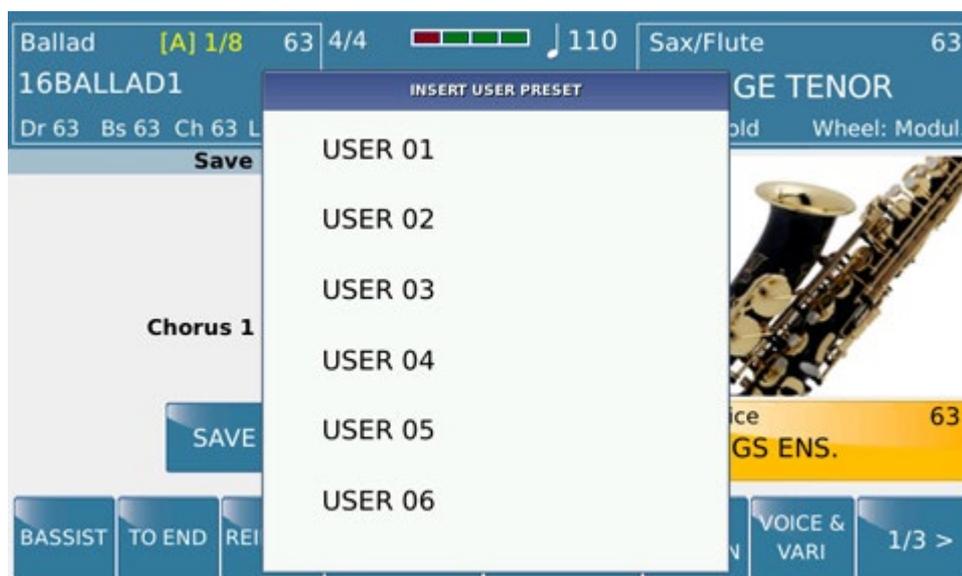
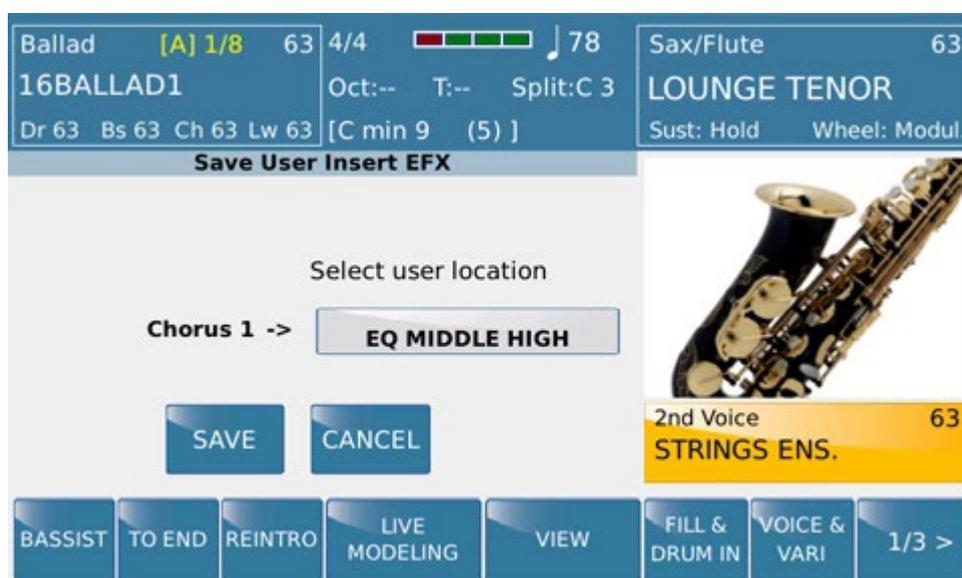
**-PORTAMENTO:** Enable Portamento on selected Voice. The effect is operating in relation to the value (5/128) and Portamento mode (Poly, Mono, Off) stored on Edit Voice menu.

**-DOUBLE:** Adds an octave (up or below) on the note played of the selected Voice. Octave type is assigned on menu 4 of 6 on [EDIT VOICE](#)

**-EFX Type:** Enable by a Pop Up menu selection of EFX to insert on Edited VOICE.



By pressing SAVE button will be stored such your own USER EFX .



**- EFX ON:** Enable Effect

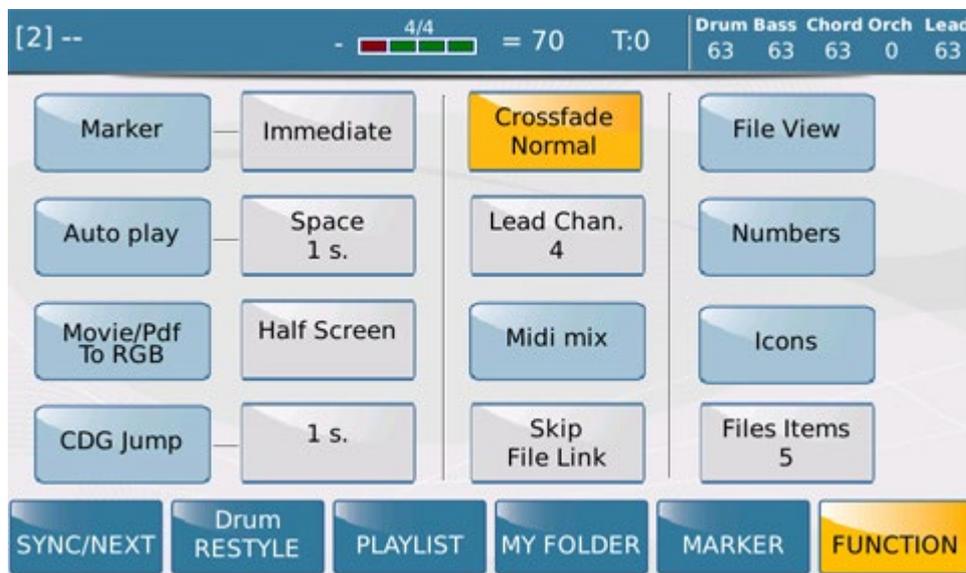


# XFade



Press this button to activate automatic XFADE between two files (Mid, Wave, Mp3, Kar) on PLAYER menu.

XFADE feature is set from the FUNCTION menu where you can select different speeds such: Normal, Slow1, Slow2, Fast1, Fast2.



When used in DJ mode XFADE show an additional touch screen view during play for manual control and visualization.



*Info: The function XFADE is not available on Video file .*



# Edit Pattern

The instrument includes an Edit Pattern section that allows the user the ability to change the existing Styles or create new ones also using internal resources such Live Modeling, Groove etc.

**Important:** *Internal Factory Style are write-protected so that all the changes that will be done using EDIT PATTERN will be saved on USER area.*

In this page will be used menus and dedicated keys affecting the way of recording Pattern.

As previously mentioned each Style is made up of these elements that the user can modify or change:

**3 Intro;**

**3 Ending;**

**4 Arrangements (A, B, C, D);**

**4 Fill;**

**4 Break.**

Menu is available by the TAB VIEW located on main page of **STYLE**



Once selected, at the bottom right of the display (selection area Style menu), you will have access to the EDIT selection



Display looks like this:



As you can figure out EDIT is activated starting from an existing STYLE where you can see all sonic components used. This elements can be modified in the same way used on STYLE VIEW menu where easily with TAB you can select any sonic and controls resource.

Here you can find all EDIT menu which will be explained step by step for an easy and quickly use on it.

In detail we found :

- **DOWN/UP OCTAVE** : Tab that allows the change octave (-1 / -2 / NORMAL / + 1 / + 2) on the section (Bass / Chord 1-5) an Drum , Groove also selectable on RECORD Mode.

- **UNDO** :. Undo function is used to back at the previously situation before the recording If you are not satisfied with what registered press UNDO to restore the whole contents. The UNDO that you find in this menu can recall all levels of STYLE recorded or allows you to return just only to the previous situation selecting step you think most suitable. The UNDO instead found on the TAB MENU works exclusively for the selected function.

- **MUTE** : Put on MUTE (silenced) selected track.

- **CLICK** : Allows to activate Click (metronome) for recording procedure.

- **SOLO** : Put on SOLO selected track just to "ear" just only the desiderated track of the STYLE.

- **PART LISTEN** :Allows to hear selected timbre directly from keyboard

The bar below (1/8 in the case of the Style selected in picture) displays the length of the pattern in use. During recording is displayed progressively just to indicate the state of recording.

If you want to create a STYLE from scratch We recommend that before you begin to plan as more precisely you can the structure of the style you are going to record. The parameters of length, time signature are basic settings that style needs to have the correct planning.

Links below describes all the features of the various menus available on EDIT PATTERN:

**ARR.A**: Allows selection for Arrangements Parts of STYLE (A/B/C/D / FILL / BREAK; INTRO END )

**MAJ**: Allows selection for programming selection of MAJ / MIN / 7TH mode of STYLE.

**PARAMETERS**: Allows selection of Global (or single) Parameters of STYLE.

**QUANTIZE**: Menu to apply Quantize of STYLE parts recorded

**CONTROLS** : Allows selection of Controls of STYLE.

**VELOCITY OCTAVE**: Allows selection of Dynamic ( velocity) and Octave parameter to apply on selected track.of STYLE

**COPY/EXPORT**: Allows to COPY between single part of whole STYLE.

**NEW STYLE**: TAB which allows to initialize a STYLE for a completely new Recording

**CLEAR**: TAB to CLEAR single events or whole STYLE.

**RECORD**: Allows to RECORD selected part of STYLE

***Important:** RECORD mode affects on all available sections of PATTERN. Exception is done for the track AUDIO DRUM Instead of **Audio Drum** you can use a conventional **Drum Set**.*

## **Arranger Setting**



# Playbox

Playbox environment allows to place your most used files such midi , mp3 and wave ( file usually managed from Player menu ) Jpg, Pdf, Png, Kst (style) Srg (Registration) just on a handful location in order to manage these avoiding wasting time on Hard disk or else On this menu you'll find just 4 PLAYBOX Folders placed on Main root of your SD 9 internal memory.



Once you have placed files on these 4 FOLDER you'll recall by pressing **REGISTRATION** button where Playbox feature is fitted.



*Info: User cannot create further Playbox folders .*

## [Front Panel](#)





# User Audio Drum

SD 9 allows you to manage your User Audio Drum Drum environment through the **Live Modeling** section



User Audio Drum can be realized by you (Wave 44,100, 16-bit) using a specific Audio Editor software or by importing User Audio Drum already 'existing' library from AUDYA.

Whatever the origin of these files, SD 9 can "locate" and manage them through the DRUM part of **Live Modeling**. These files must have the following names.

ARRA.wav = Variation A

ARRB.wav = Variation B

ARRC.wav = Variation C

ARRD.wav = Variation D

FILA.wav = Fill A

FILB.wav = Fill B

FILC.wav = Fill C

FILD.wav = Fill D

BRKA.wav = Break A

BRKB.wav = Break B

BRKC.wav = Break C

BRKD.wav = Break D

INT1.wav = Intro 1

INT2.wav = Intro 2

INT3.wav = Intro 3

END1.wav = End 1

END2.wav = End 2

END3.wav = End 3



*Info: If You want an additional Variation on arrangements A / B / C / D will be enough to name these files as: ARRA\_1.wav, ARRB\_1.wav, etc etc*

These files must be saved in a folder with its name (eg: MyStyle\_140) in SD 9 directory in the following root: USER\_Live Modeling / Live Drum



*Info: The number following the underscore to the folder name (\_140) refers to the BPM of audio drum. SD9 will use as reference of original BPM*

Once you inserted these files SD90 must be restarted so that files and related parameters are "recognized". So turn Off and On SD 9, to select these file on Users page **Live Modeling** Audio Drum. You can verify the properly content on related environment

and then manage them on VIEW Arranger page:

This feature will allow the user to customize their own arrangements with "cadences" more original and personalized even follow innovative musical trends.

*Info: User Audio Drum files in addition to the 44,100 stereo and 16-bit audio feature should be organized in terms of length (Cut) accurately so that when they are played (loop) will have a perfect cycling feature. If the files will not properly "cut" you will notice a kind of audio stumble when will be played again at the end of their effective length. We recommend to use professional audio editor to make the cut of these drum sound in the right way. Only this can guarantee a perfect playing feature.*



# Live Modeling

SD90 carry a new interesting feature on Drum and Arranger section called **Live Modeling**.

This feature allows any inexperienced user to customize easily their arrangements (Drum, Bass, Chord, Live Guitar, Lower) in an unprecedented way. SD90 allows an huge database of pattern library regarding all sections of the Arranger in several kinds of styles. These available pattern , then we will examine in detail, were made precisely in order to "cover" all those types of music often used. Starting with the arrangements from the traditional type (as Swing, Latin, Folk) to those more cool (Dance, Pop, Ballad).

Choose a Style where to start and see in detail how to proceed:



Access on **LIVE MODELING** menu by pressing the corresponding tab from touchscreen :



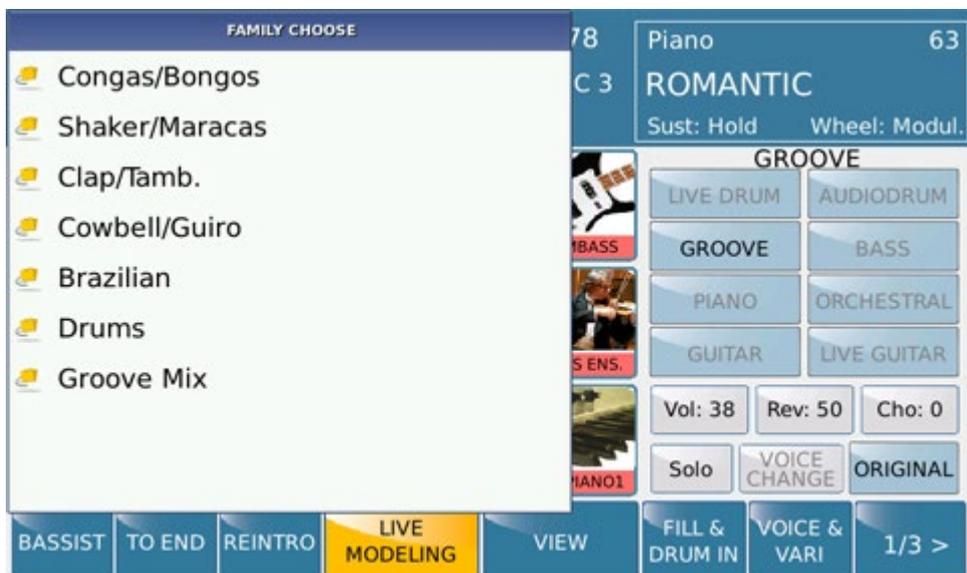
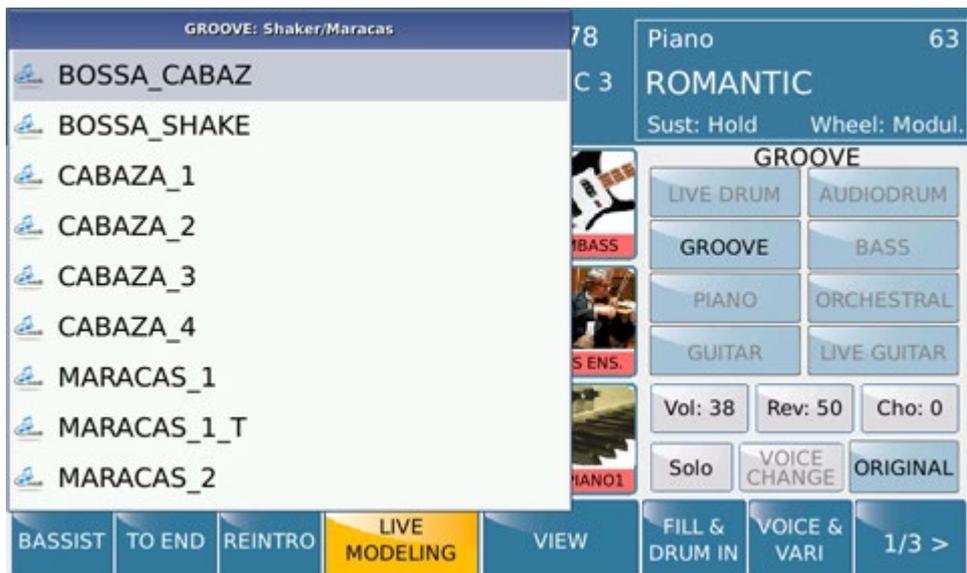
From this screen you can select Arranger part where enjoy Live Modeling feature We can choose between **L.DRUM, A.DRUM, GROOVE, BASS, LIVE GUITAR, CHORD 1/2/3/4/5, LOWER 1, LOWER 2.**

We choose to start with GROOVE part by pressing for few seconds the corresponding icon.

*Info: Chord, Bass, Drum, etc etc selection icon has a dual propriety .On / Off operation at the first contact. If pressed for a while allows access to the selection of the Live Modeling files.*



By pressing GROOVE Tab display will show a pop up menu with folders and file available for Live Modeling.



Just simply select one of the files that you want to hear about the variation.

here commands placed on the right side of the display available for this menu :



- **VOL** : .Using the Dial these value controls Volume of the section where operating

- **REV** : Using the Dial these value controls Reverb of the section where operating

- **CHO** : Using the Dial these value controls Chorus of the section where operating

- **SOLO** : This tab allows you to place in SOLO (isolate) the section where operating .In this way you can listen section Groove excluding automatically all other parts of Bass, Drum and Chord

- **ORIGINAL**: Using this Tab original set will be restored .

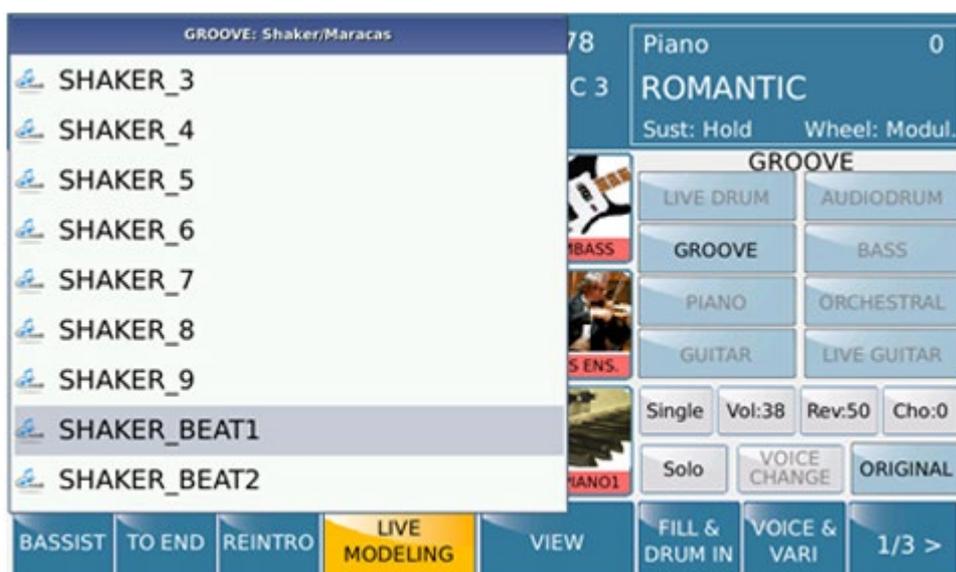
These command are present on others section plus the VOICE CHANGE tab which allows to change the Voice on the desiderated harmonic section.



**-GROOVE/PIANO/GUITAR/ORCHESTRAL:** These sections allow you to apply Piano / Guitar / Orchestral even GROOVE arrangements on selected CHORD section (up to 5). This feature allows the user to manage CHORD environments with more flexibility and creativity.



*Info: Live Modeling files are unavailable on Lower 1 and Lower 2 section. You can only use Voice Change, Reverb Volume, and Chorus.*



## MODELING USER DRUMSET: Extension USER DRUM MIDI

Tables (midifiles) with midi drum sets can be inserted into the USER\_MODELING / Drum folder.

The tables will be visible after rebooting or with Update Modeling Tab (by holding down the TALK + FADE button and pressing STYLE).

In the LIVE MODELING Menu in the GROOVE pad (third pad of the first row) holding it down, the list of Grooves will be highlighted, pressing EXIT will access the Groove / Drum families.

The User Drum family (at the bottom) displays the drum sets tables.

These tables can be assigned to the sections of the INTRO, ENDING, ARR, FILL, BREAK style (only in single mode).

To assign user drum set tables to intro / ending, fill, break, turn on KEY START first

To end the lights turn on REINTRO.

With Save tab you can save the style with the changes made on the modeling.

Once changes are completed, you can save what was done by pressing SAVE button. SD90 will show the following screen to choose Save onto a new **USER STYLE** or a **REGISTRATION**.



*Info: Live Modeling's files can also be created by the user using external devices such sequencer. These file must be as a midi file format with single track containing reference data for this purpose (Note, Pr C, Controllers, Root)*



# UTILITY

En esta pagina encontrará información de utilidad sobre su instrumento:

## **Reboot Application**

Aplicación de reinicio del instrumento

Al pulsar simultáneamente los botones Talk y Enter, se reiniciará el SD9 Pro sin tener que apagar manualmente el instrumento. Esto puede ser útil si se producen anomalías.

**Whole Disk Check** Comprobación completa del disco.

Teniendo pulsados los botones Talk y Fade simultáneamente y pulsando Enter, el SD9 hace una comprobación completa del disco. Esta función lleva bastante tiempo, por lo que el instrumento no se debe apagar durante este procedimiento.

Una vez completado, el instrumento se reiniciará automáticamente.

## **Update Modeling Tab**

Manteniendo pulsados los botones Talk y Fade simultáneamente y luego pulsando Style, se actualizarán automáticamente las tablas del User Modeling.

## **Midi**

Midi Reset: Restablecimiento de Midi: agregue un mensaje exclusivo del sistema para realizar el reinicio de Midi Aquí está el código F0 26 7B 39 05 00 F7 (Hex).

Llamada del estilo desde un dispositivo midi externo).

## **Agregada la posibilidad de cambiar el estilo en recepción RX desde midi externo.**

Desde Midi Keyboard Rx parte: global o right

El banco 40-49 selecciona la familia de fábrica Factory 40 = balada 41 = pop, etc

pch = 0-127 selecciona el style de fabrica Factory max. 128 styles

bank 50-59 selecciona la familia User 50=ballad 51=pop etc.

pch = 0-127 selecciona el style User max. 128 styles



# SAMPLE EDITOR

In this environment you can build your Sound, your drum set, edit it and make it an whole part of your set up. Before examining the operational steps of this menu, we consider important to clarify some aspects of terminology and performance.

## Explanation

Sample and samples are synonyms.

Split or zone is a sample in which a range of notes has been assigned where this is reproduced with the modalities defined by the ADSR volume editing parameters etc.

A Sample is a wave file (or Sound Font ®) of sample rate less than or equal to 44.100 appropriately treated (possible resampling to 44.100) and cut to the max. about 16 seconds.

Instrument and MS2 are synonyms.

An MS2 is composed at the max. from 32 split.

The max. number of MS2 components the sound bank is 30.

The max. split number is 585 for which:

Sound bank is the set of all MS2s present in the Flash memory of sounds.

(You can have up to 18 MS2s complete with 32 splits or 30 MS2s with up to 19 splits each).

Internal format WAV file: 16 bit mono, sample rate 44.100;

NOTE: For Wav files with sample rate other than 44100, an automatic resample at 44100 mono will be performed.

The 24-bit Wav files will also be converted to 16-bit, 44100-mono format.

## Works Folder:

The folder in which the MS2s are saved and loaded is / INSTRUMENT.

The works folder in which the user will have to put the wave samples in bulk or organized in subfolders for editing is / SAMPLE.

The works folder in which the wave samples processed for editing are automatically placed (with suffix "\_spl.wav") is / SAMPLE / TMP. It will be deleted when exiting the sample edit.

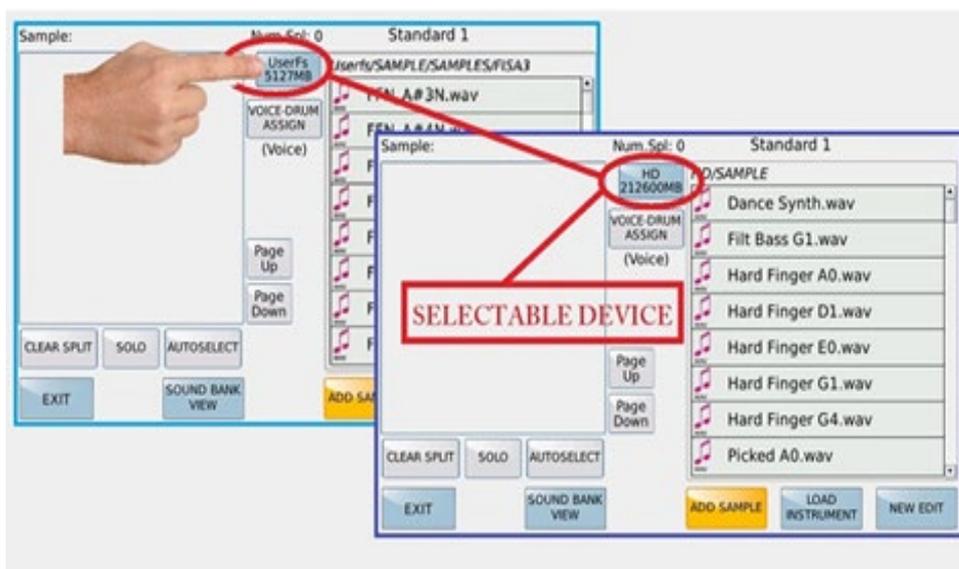
## EXTERNAL HARD DISK (OPTIONAL)

If installed it is possible to work on the external hard disk. In this case, before accessing the Edit Sample, select the hard disk from the MEDIA menu or from the main menu select the UserFs / HD button which alternately selects the two devices.

The INSTRUMENT and / SAMPLE folders will be created automatically when you first log in to the Edit Sample.

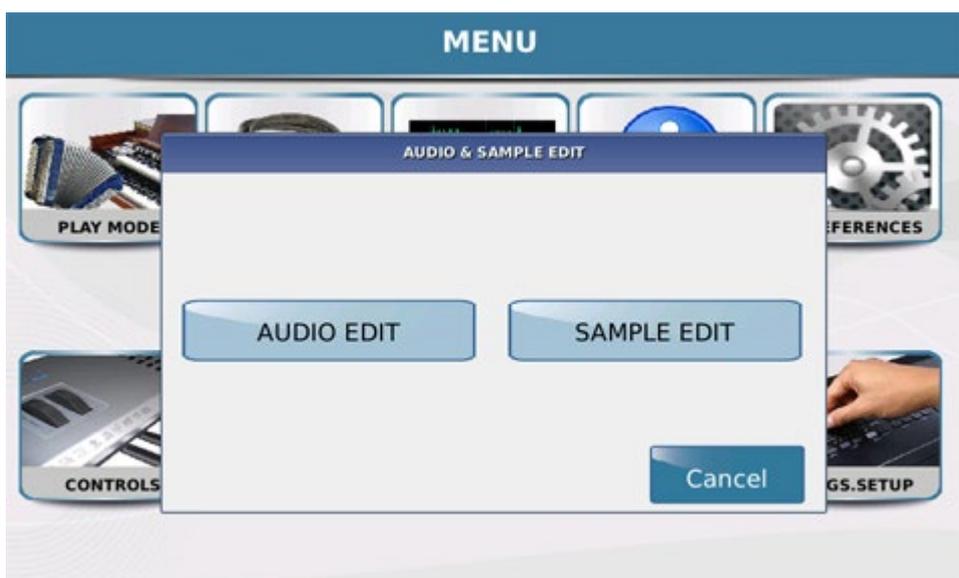
*NOTE: For safety reasons it is not possible to work with removable USB devices.*

## DEVICE SELECTION



**How it works:**

The Sample Edit is browsed from MENU → AUDIO / SAMPLE. In the pop up choose SAMPLE EDIT DIT



**FIRST ACCESS (INITIALIZATION)**

USER SOUND BANK WILL BE INITIALIZED FOR FIRST TIME.

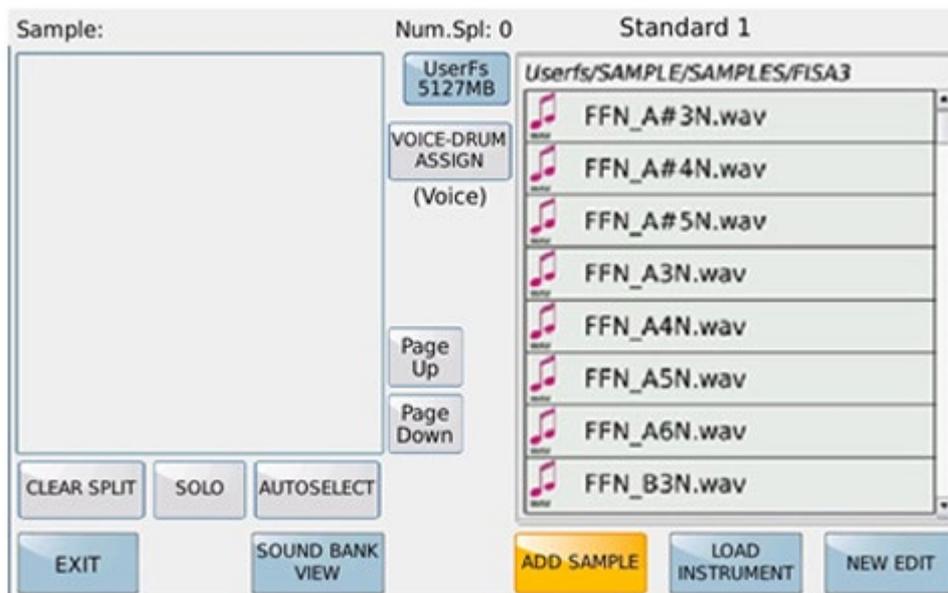
The first time you access Sample Edit, you will be asked to initialize the sound bank in flash of the sounds.

Press CONTINUE to format

**INITIALIZING IN PROGRESS  
DON'T TURN OFF THE INSTRUMENT.**

The following message will be displayed: initialization in progress do not switch off the instrument during the procedure.

- The main page of the editor is displayed.



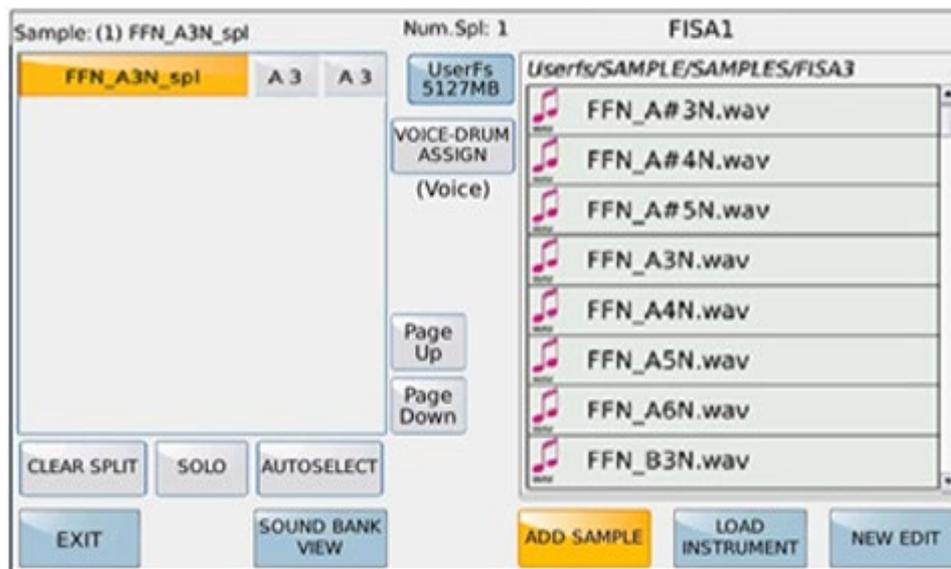
Left area (initially empty) contains the names of the samples "Sample area (files wave)" that will be assigned to each split, i.e. to the keyboard range in which the sample is played.

In the upper left corner the sample name is highlighted, in the middle the number of samples loaded (Num.Spl:), on the right the name of the complete instrument being edited (MS2 extension).

It is written (NO-NAME) if no instrument has been loaded / saved.

Right area contains the folder of the disk from which it is navigated (with DIAL, ENTER, EXIT or Touch), you can select the wav files that will compose the instrument (INSTRUMENT).

### ADD SAMPLE



The ADD SAMPLE key activates the selection of wave files (.WAV) in the navigation area on the right. The main navigation folder is SAMPLE.

When a WAV file is selected, the file is loaded into memory and displayed in the Sample area on the left.

You can select up to 32 samples (split).

The maximum length of a sample is established in just over 16 seconds.

The sample must be a sample rate of 44,100 samples per second mono or stereo.

In any case, an automatic resample is performed in case of different sample rates 44,100

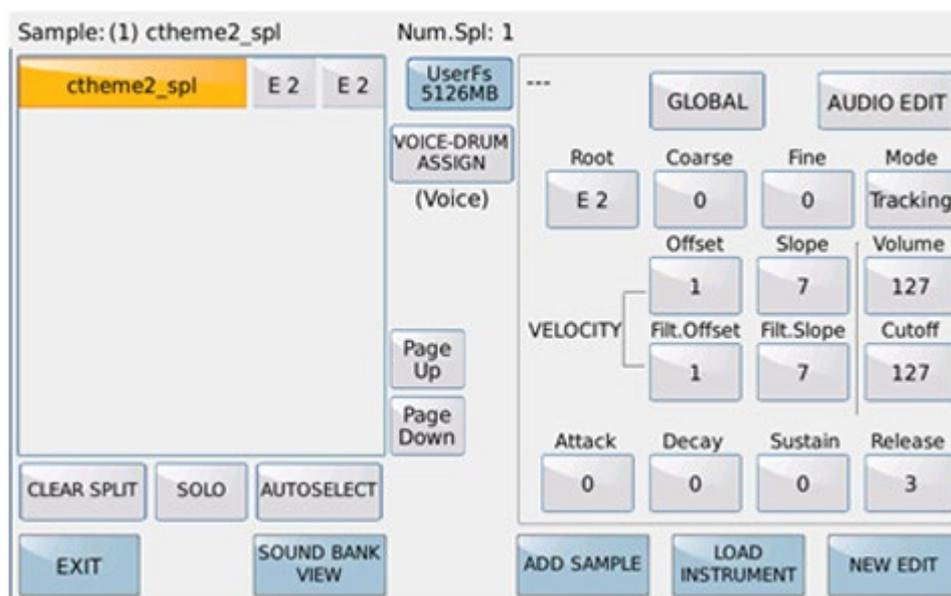
The sample if stereo will be mixed in mono.

The Key, k.low k.high fields are automatically assigned if the reference note is found in the wav file name, or within the wave file (chunk smpl).

If the reference note is not found in the key field, the value C3 is assigned by default.

## PARAMETERS EDIT

Turning off the ADD SAMPLE box accesses the Edit menu

**SOLO**

Only the selected split is played on the keyboard.

**AUTOSELECT**

The note played on the keyboard automatically selects the relative sample.

**GLOBAL**

With this function all editing parameters will be applied to all splits simultaneously except: Root - Coarse - Fine - Mode

**CLEAR SPLIT**

It allows to delete the selected split from the list. If the selected split is the last one it is deleted from the list, otherwise it is deleted and marked with "-----".

The canceled split is no longer selectable.

When a new split is added, it takes the place of the first canceled split that is found in the list.

When saving the instrument the deleted splits are permanently deleted. (compaction of memory).

Page Up, Page Down select the Samples pages (max 32).

The pages are scrolled also via the dial if no parameter is selected for editing.

The areas to the right of the split name define the range of the keyboard where the sample plays.

If it is not possible to assign the note range of the keyboard where the sample is playing, the following is displayed:

k.low, k.high

k.low: allows to establish the lower limit (lower note of the split) where the sample is triggered.

k.high: allows to establish the upper limit (upper note of the split) where the sample is triggered.

You can use the Dial or the keyboard to assign the values of the limit notes.

**NOTE:** the splits are stackable. Together they play together in the overlapping area.

Right area contains the edit parameters of the selected sample (colored yellow).

**Root:** Note where the sample is played in the original key (valid only in Tracking mode).

**End:** Fine tuning (centesimal)

**Coarse Tune:** Tuning by semitones

**Mode:**

**Tracking:** Allows the sample to be tracked in the extension of the keyboard. This means that the Sample will undergo chromatic variations of an instrument tuned to semitone heights

**Fixed:** The sample is not tracked so it always remains with the original tuning (method used for percussive sounds, efx or similar)

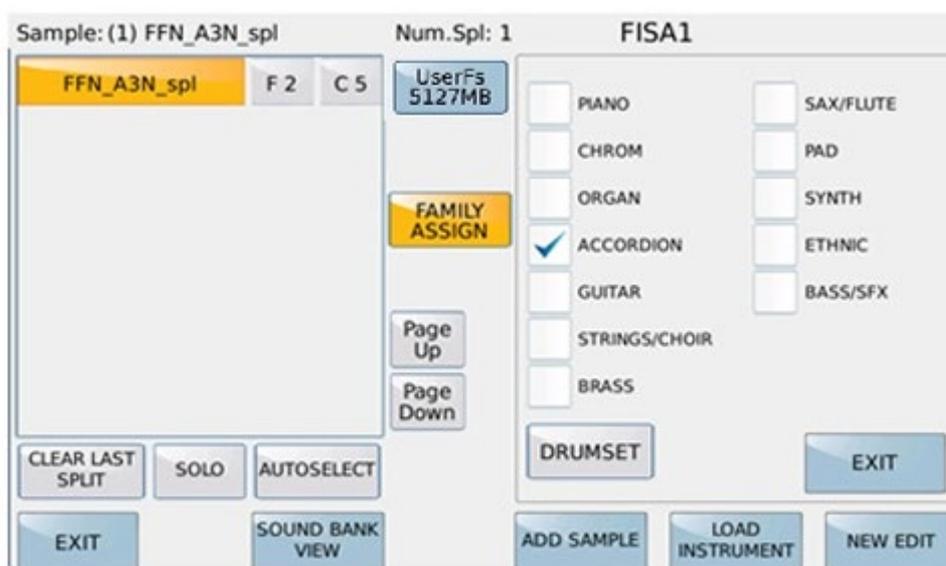
Velocity: Menu where the sample is controlled by dynamics (Velocity) and how it will react in Volume and Filter.

- **Offset:** Set the volume dynamics time
- **Slope:** Set the slope time of the volume
- **Volume:** Sets the time of the total volume of the edited sample.
- **Filter Offset:** Sets the filter compensation time
- **Filter Slope:** Sets the slope time of the filter
- **Cut Off:** Changes the cutoff frequency of the filter

### A.D.S.R.

- **Attack:** Set the attack time of the sound envelope.
- **Decay:** Sets the decay time of the sound envelope.
- **Sustain:** Sets the time for maintaining the sound envelope.
- **Release:** Sets the release time of the sound envelope

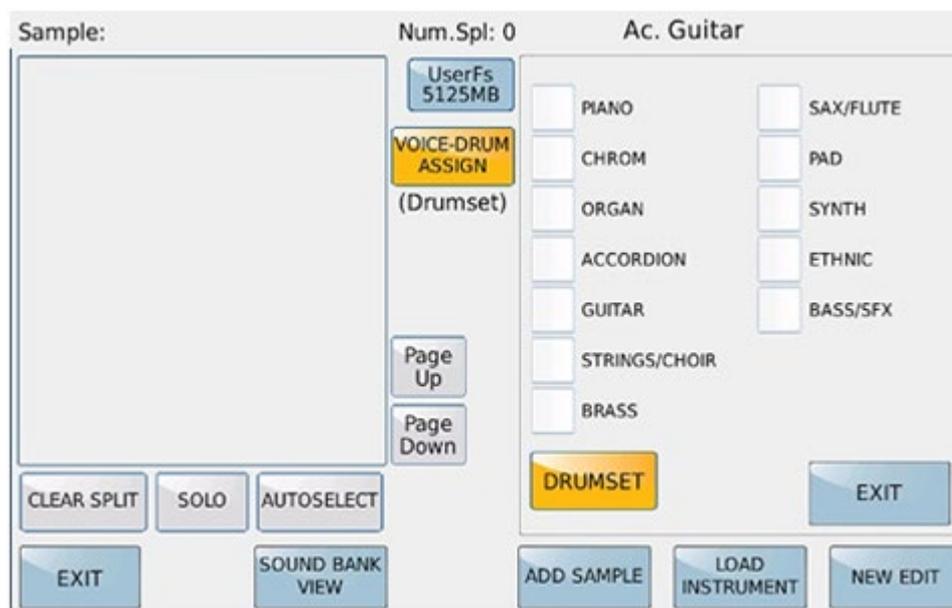
## FAMILY ASSIGN



It allows to assign the family of the voices in which the instrument will be displayed once edited and saved, or alternatively if the sound is a drum set. The instrument is a GM sound with bank = 100 and pch 0-30.

To access the selection of the family there must be at least one sample in the Sample editing list.

**DRUMSET:** Allows to assign the instrument to the drum set.

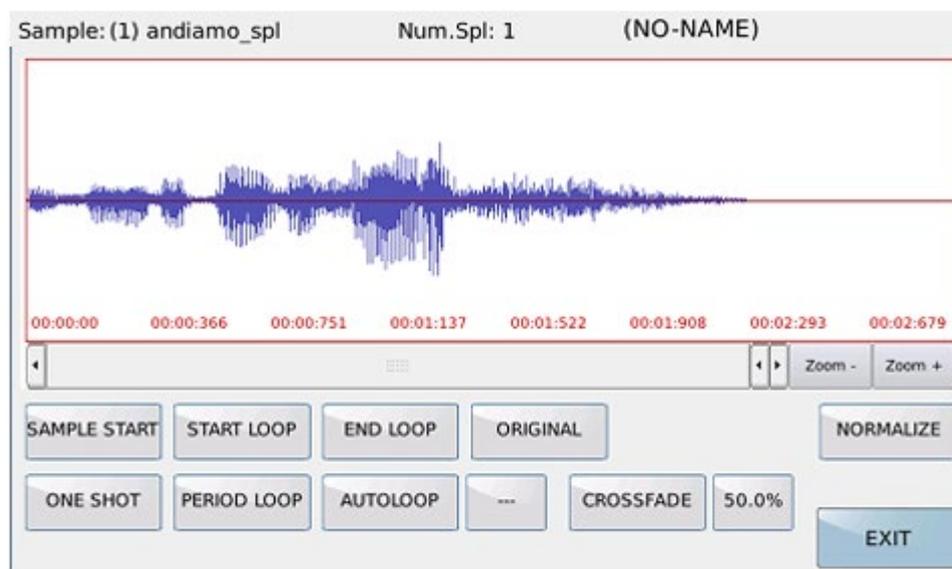


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To access the selection of the family there must be at least one sample in the Sample editing list.

**DRUMSET:** Allows to assign the instrument to the drum set.

## AUDIO EDIT



The **AUDIO EDIT** environment allows the display of the sample and some operations to create the loop.

### LOCATORS:

**SAMPLE START** starting point of the sample

**END LOOP** conclusive point of the sample

**START LOOP** loop point.

Locators can be moved using the dial or touch at the desired point in the sample graph.

### ORIGINAL

Resumes the original START, END, LOOP settings.

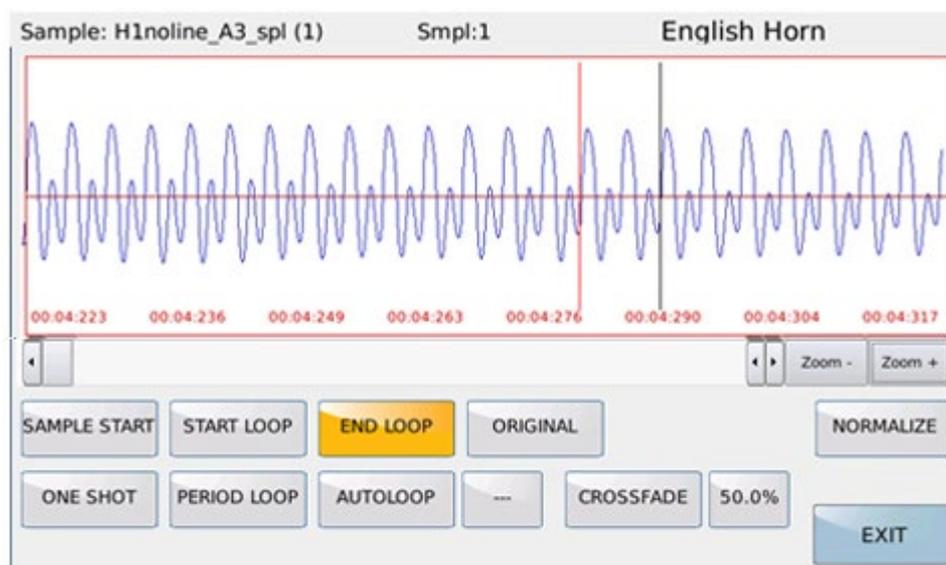
**ONE SHOT**

Automatically sets the LOOP and END points so that the sample is played only once from the START point to the END point.

The loop point is automatically approached to the stop point.

**NORMALIZE**

Performs standardization of the sample in the maximum assignable range of amplitude.

**PERIOD LOOP**

Activating this mode displays the samples with the max. zoom in order to have a precise edit to the sample. The start loop point is automatically approached to the end loop point.

Only the START LOOP and END LOOP functions can be activated. In this way the loop and stop points can be positioned by dial in order to have the loop on one or few sample periods.

A zero crossing algorithm is used to determine the loop and stop points.

**NOTE:** several attempts must be made by moving the loop end point until a loop is obtained on the desired frequency.

**AUTOLOOP:**

It allows to obtain a loop automatically. Loops are searched from the START LOOP position to the selected END LOOP position.

The loops found can be selected (if there is at least one) in the box to the right of AUTOLOOP via Dial.

**NOTE:** The Autoloop function can last up to 90 seconds.

**CROSSFADE**

Performs the crossfade in the loop area.

The duration of the crossfade is established by the duration in percentage.

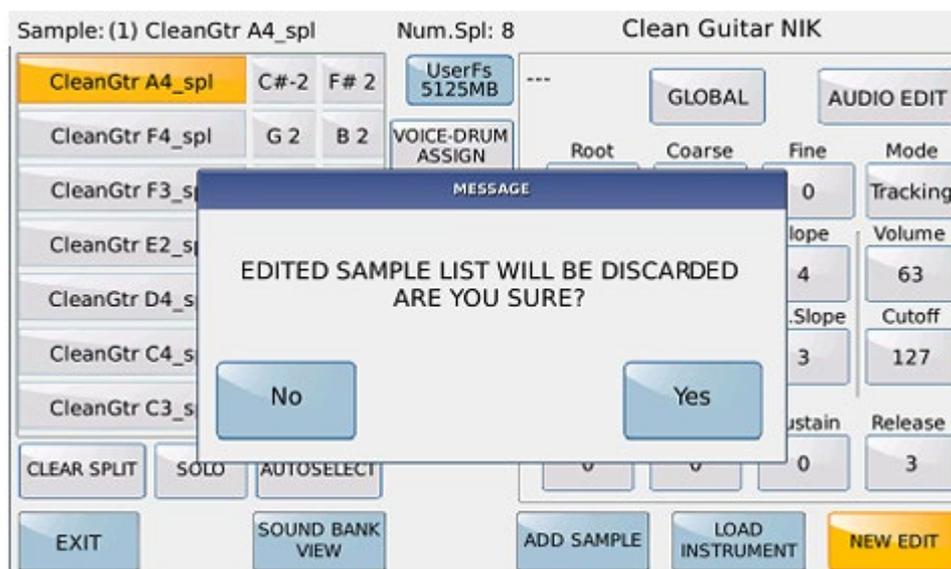
By default it is set to 50%.

If the loop point is near the end point it is convenient to lower the duration.

**NOTE:** Creating good loops requires time and patience to perform several tests. The AUTOLOOP and CROSS FADE functions help the user, but they are not always decisive.

**EXIT** Return to the main menu.

**NEW EDIT.**



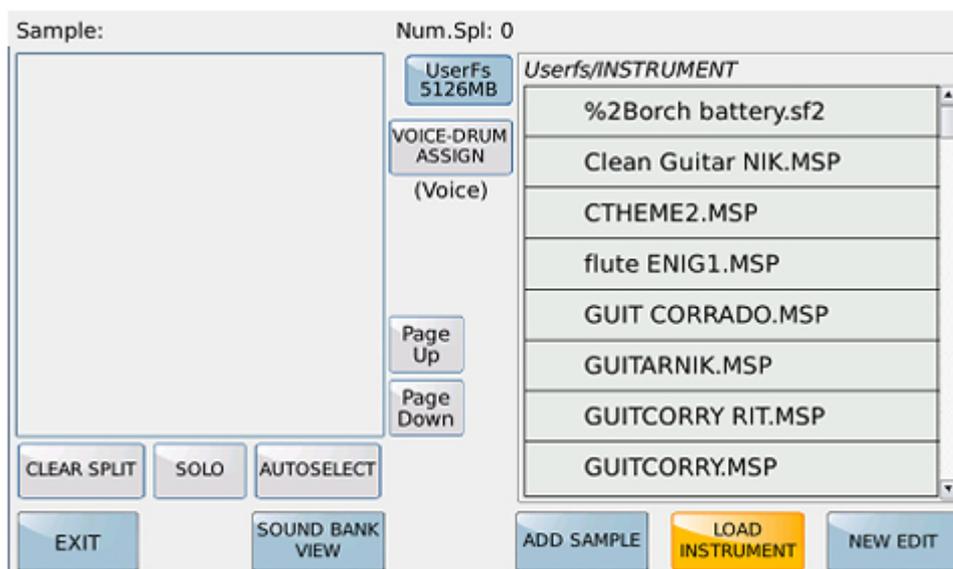
Every edited sample is deleted from memory and the memory is initialized for a new editing.  
 (You can use it if you want to start from scratch in editing) ..

## SAVING AN INSTRUMENT

With the SAVE button you can save all the samples edited in an instrument (MS2 extension).  
 The instrument is saved in the INSTRUMENT folder (also in the INTERNAL HDD \* if present in the instrument).  
 The MS2 file contains information on the instrument parameters and all samples of the split components.  
 The file is saved both on disk and in the flash of sounds for which the instruments (Sound Bank) remain resident even if the instrument is switched off.  
 If a tool with the same name already exists in the flash it will be overwritten.  
 Saving takes some time proportional to the number of splits.

### LOAD INSTRUMENT

Load an instrument (MS2 or SOUNDFONT) from disk and transfer it to the edit area.  
 By default, the INSTRUMENT folder is set.



## SOUNDFOND

Possible operations are IMPORT and EXTRACT

### IMPORT:

Instrument samples can be uploaded in Soundfont format (up to version 2.04).

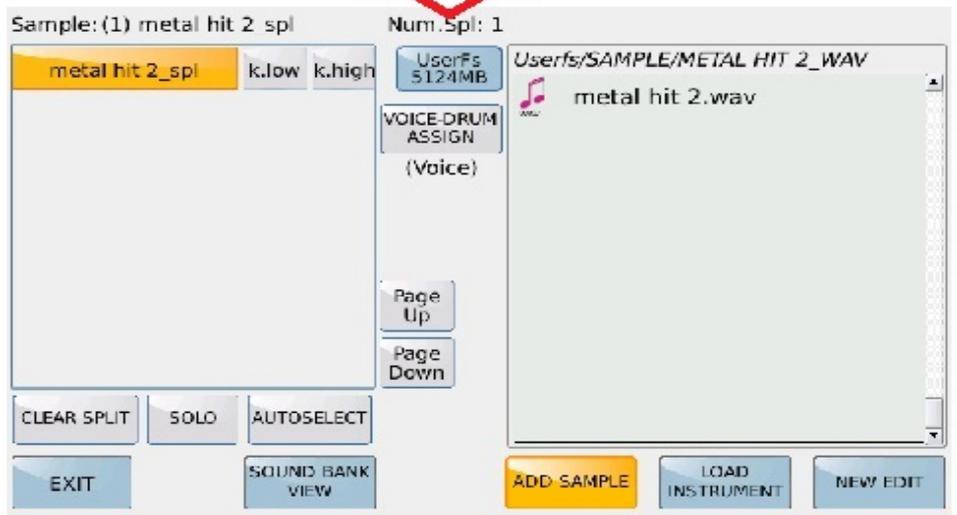
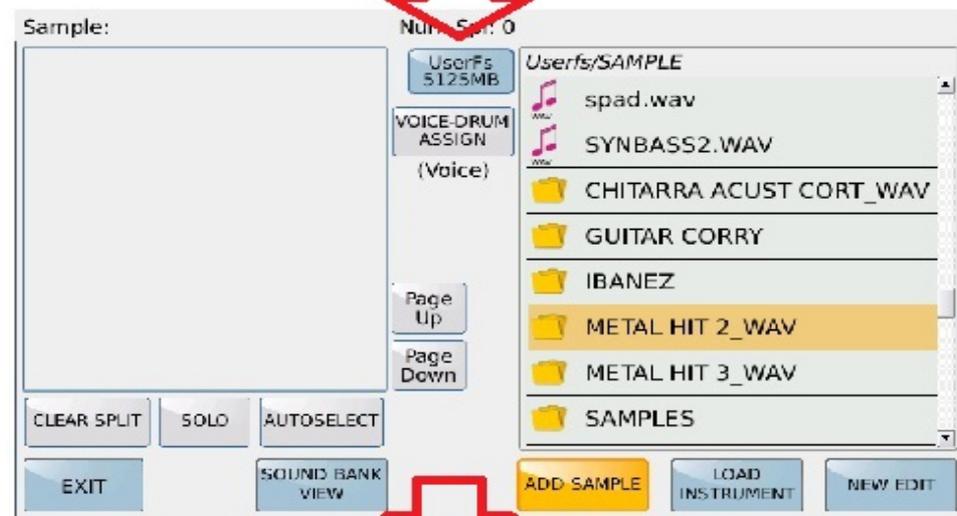
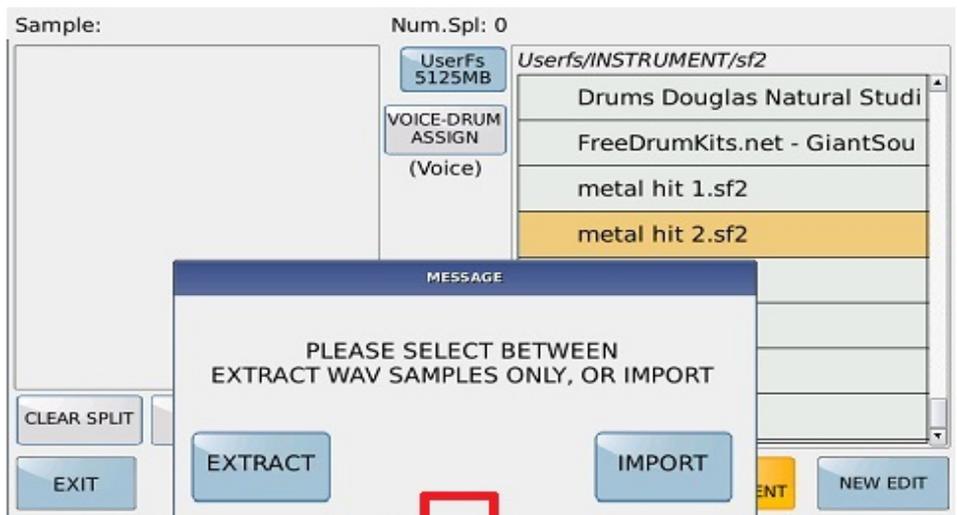
Soundfonts (extension SF2) must not be compressed, must have only one instrument, and 24-bit format is not provided.

If the sample rate of the instrument is different from 44.100, an automatic resampling is performed to adapt it to the 44.100 format.

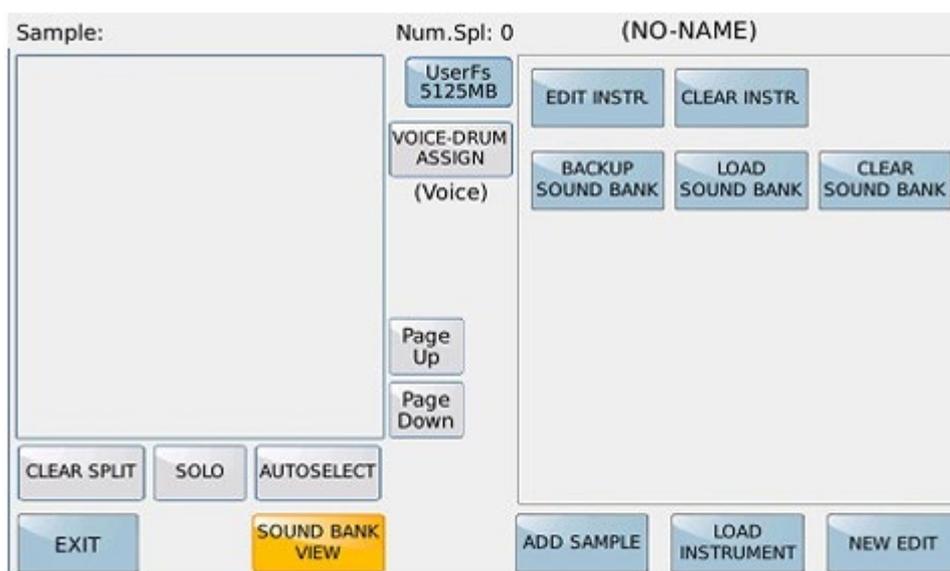
The note range where each sample is played and the note of the reference pitch is also imported.

### EXTRACT:

The samples are extracted from the Soundfont and saved in the wav file format in a folder named derived from the instrument name, NOW RESIDENT IN ADD SAMPLE



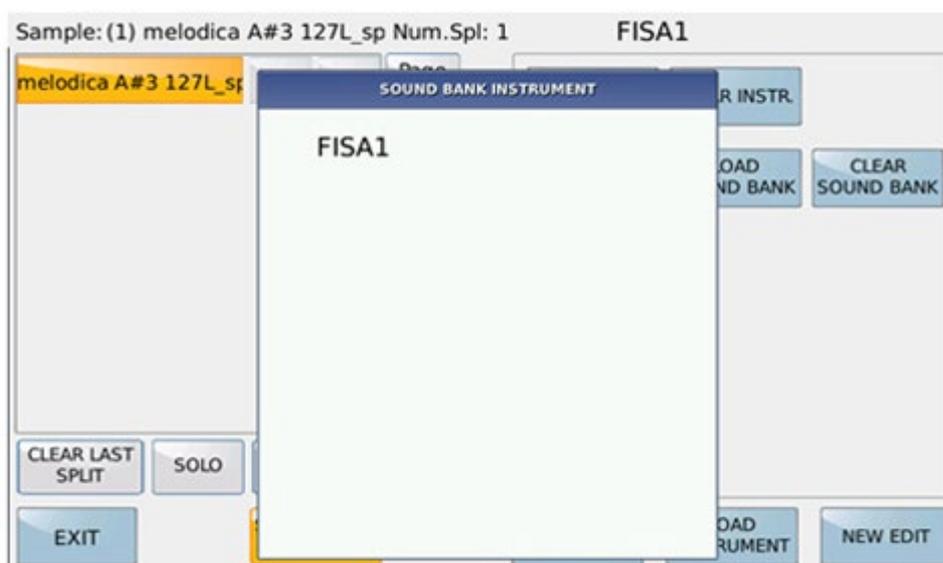
### SOUND BANK VIEW



**SOUND BANK VIEW** button accesses the functions that can be performed directly in the flash of the sounds.

### **EDIT INSTRUMENT:**

It allows to edit an instrument among those present in the Sound Bank in the Flash memory



A pop-up opens in which all the instruments present in the sound bank are displayed. Selecting the sound will be loaded in the Edit area.

### **CLEAR INSTRUMENT:**

It allows to delete an instrument present in the sound bank and in the Flash memory

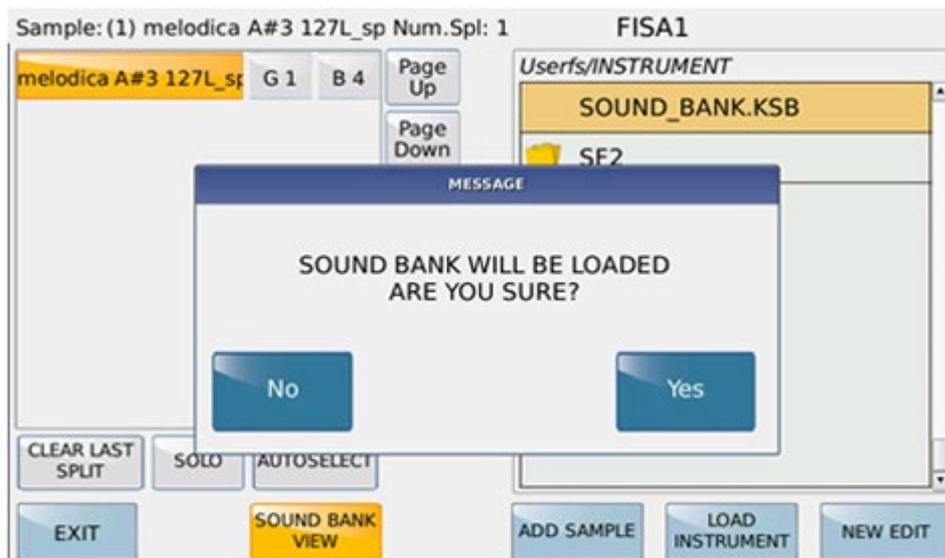
## BACKUP SOUND BANK



Allows to transfer to disk (extension KSB) all the flash memory area reserved for the instruments. The transfer takes some time and the file at max. it is of considerable size (around 900MB). A message appears if the disk does not have the capacity available to hold the Sound bank. The maximum of Sound Bank instruments is 30 MS2s

### LOAD SOUND BANK

Transfers a Sound Bank from the disk to flash memory. The Sound Bank in flash is overwritten. The transfer takes some time proportional to the total number of splits of all the flash instruments. With this procedure it is possible to have more Sound Bank available on disk.

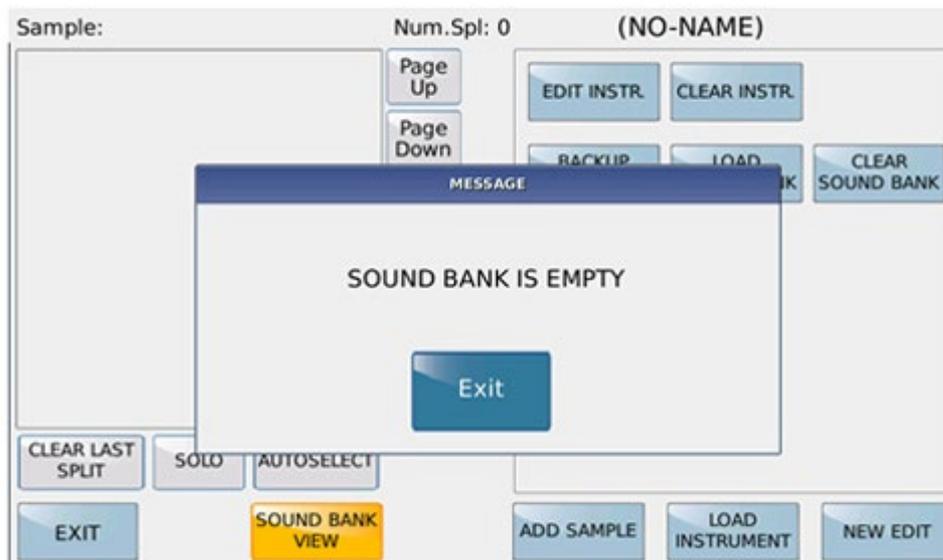


### CLEAR SOUND BANK

Clear all the instruments in the Sound Bank from the flash memory. (Formatting).



After deleting if you access the sound bank functions, this message appears:



## HOW TO RECALL THE INSTRUMENTS (MS2)

### Voices:

Once saved the MS2s are visible in the GM sound lists and displayed in the family that has been assigned to them by editing. They can therefore be treated like any GM sound and assigned to the voices or parts of Launchpad or midifile. The Bank is 100 PrCh ranges from 0-29.

### Drum set:

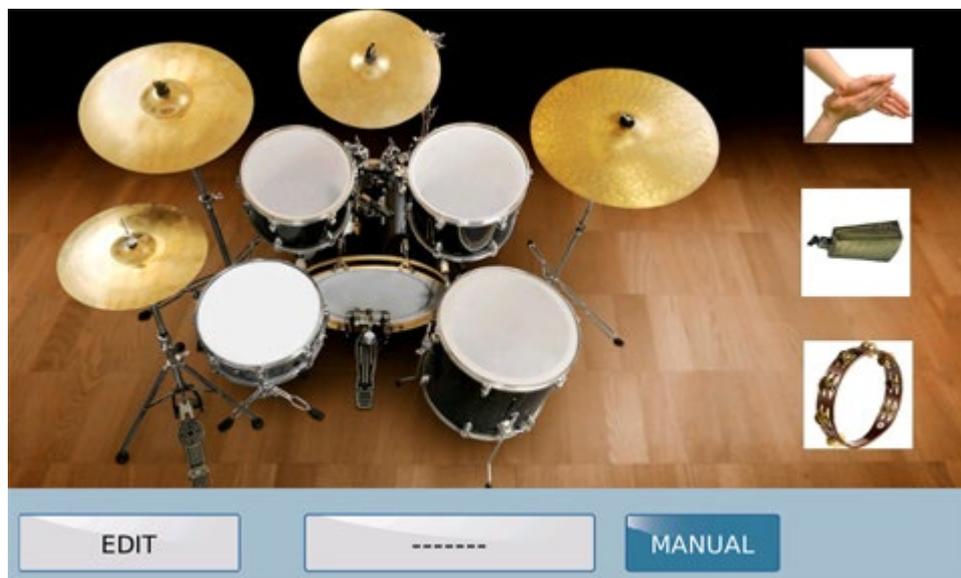
They are visible in the Drum list and can be assigned to the style, launchpad, midifile.

MS2 assignment as Drumset.

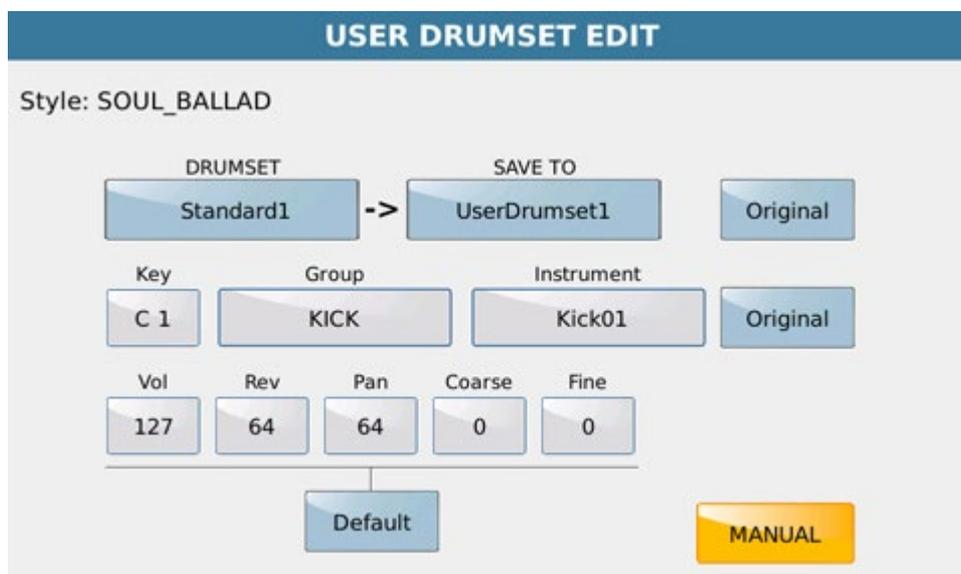


# EDIT USER DRUM

In this environment you can edit, create your USER DRUM SET.  
Press the DRUM SET button to access on this menu.



By Pressing EDIT accesses the User Drumset editing menu.  
If a drumset is selected in the current style, it will be the default drumset that will be edited.  
With the START, ARRANGE FILL BREAK keys, you can listen to changes in real time of the User Drumset.

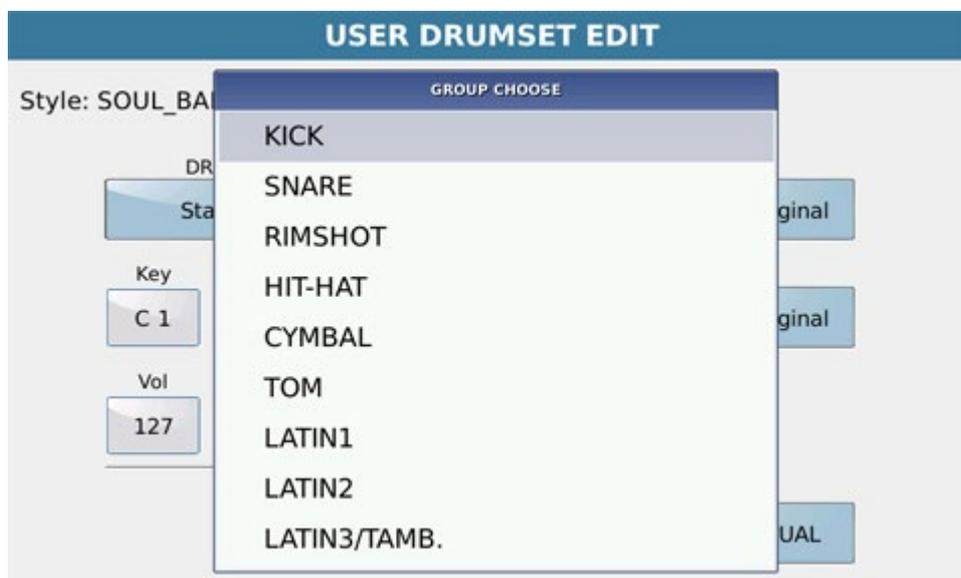


**EDIT page**

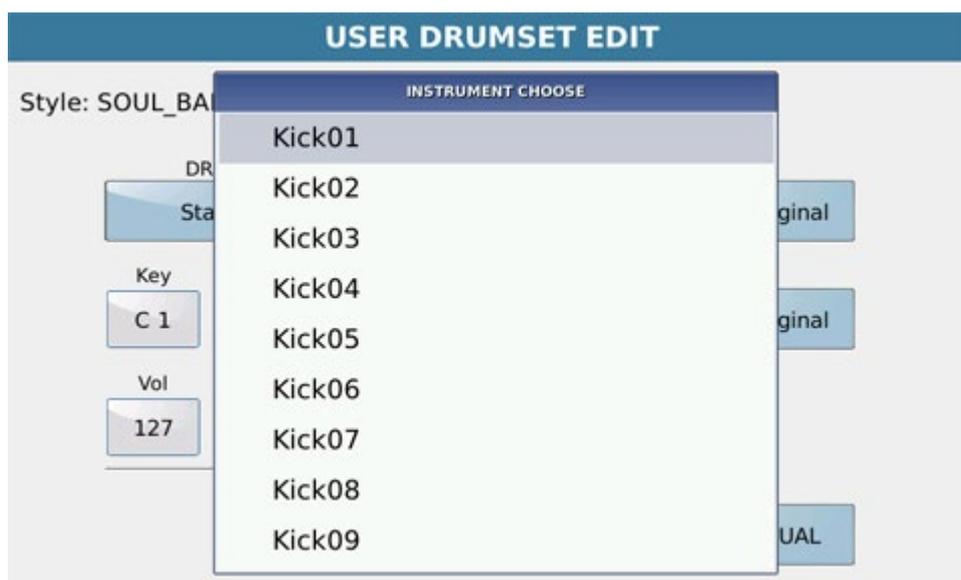
**Drumset** selection for edit purpose. It is accessed by pressing the **Drumset** box.



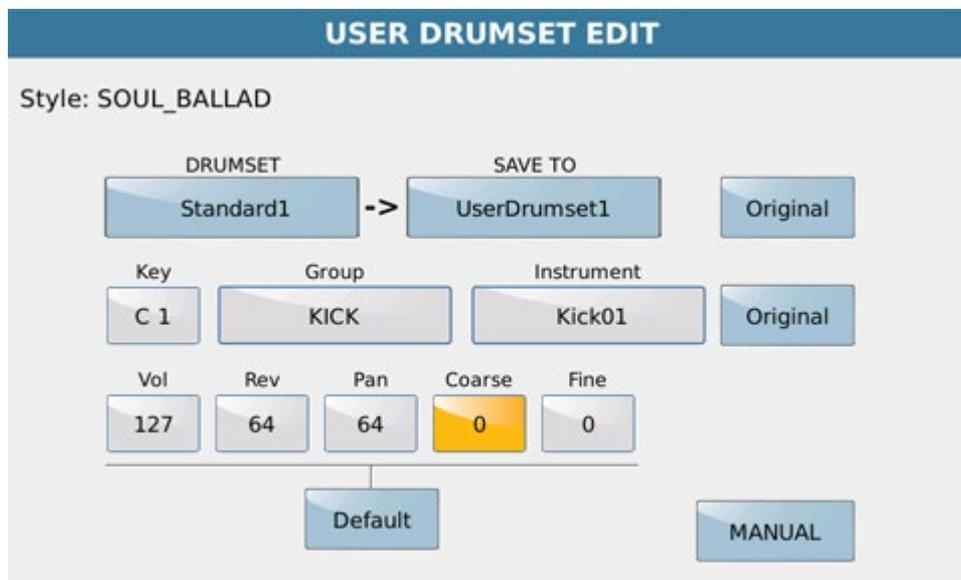
**Target Drumset**, which is the location where the edited drumset will be saved  
It is accessed from the **SAVE TO** box.



Using the keyboard or by pressing the Key icon and using the Dial, select the note of the drumset to be modified. Pressing Group opens the pop-up of choice of the group of instruments to assign to the Key note. At the bottom of the pop up Group, there are any MS2 drumsets created by Sample Edit.



Pressing the **Instrument** box accesses the pop-up of choice of the instrument belonging to the selected group, to replace the **key note** that is being edited.



You can change the Volume, Reverb, Pan, Coarse Tune (semitone) and Fine Tune (cents) Values to the edited note. The Original and Default keys restore the initial and default settings of the parameters.



By Save button you can save the User drumset edited . With Save As you can change its name.

