

ESS thanks You for purchasing Matrix One and is confident the unit will fully satisfy your needs giving you also, in the future, increasing great satisfactions, and invites you to read this quick guide to the main characteristics and functions. You will be able to go through every issue by consulting the on-line guide directly on MatrixOne, while the unit is on, by pressing the HELP key, that you will find on the front panel, bottom right, and the manual video in dvd format. A phone number and an email address specifically dedicated to MatrixOne will also be available to answer your questions.

Matrix One is a powerful and versatile MIDI/Audio workstation which integrates:

- MIDI Player with non-destructive editing functions, which imports .min and .kar formats and
 is compatible with Kar, Tune1000, M-live and Solton lyrics formats, so you can input lyrics
 from any song type. A "click" function is also available.
- Audio Player/Recorder with editing function. Supported formats are way, mpeg 1/2/3 ogg and mod. The lyrics format used in mp3 files is "Lyr 200 tag", Karaoke 5. You can also use mp3/wma/way + G files. High quality Time Stretching/Pitch Shifting are also available, you can apply them in real time and in "non destructive" mode to uncompressed way files and to mp3 files also. To obtain better quality transpose function, expecially with mp3 compressed files, an "off line" (non real time) function is also available, to have the best result in quality even with low quality mp3 files (i.e. low bitrate).
- "Vocal Remover" function, to delete, or at least to reduce, vocal in an audio file (reduction quality depends on original file characteristics).
- You can record up to 8 audio tracks synchronizing them with a MIDI song, and using "Matrix
 One MultiTrack Composer" (optional) PC software, you can import up to 8 audio
 synchronized tracks. You can use this fuction also to have a "click" on an audio song.
- 4 mono XLR/Jack input mixer, with auto gain and individually adjustable SFX, and auxiliary mixer, to obtain different signals from main outputs (L/R), on Monitor/Phones outputs.
- Audio Loop Player, recordable inside Matrix One, or taken from external source, always available through 9 easy-to-use pads.
- Expander, for MIDI linked keyboard, independent, so you can easily create layers (keyboard areas) and assign different instruments to each of 4 available areas.
- 256-note polyphonic sound generator. You can have up to 4 soundfonts (SF2) at the same time, individually assignable even on a single MIDI song tracks.

• Easy and user-friendly arranger with styles support in ".sty" format.

Please note also:

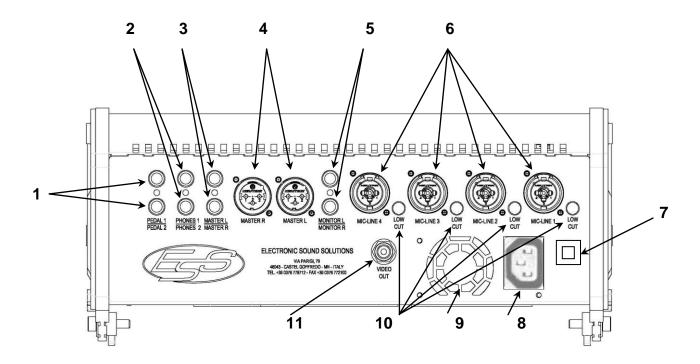
- ➤ 10.4" 640x480 colour display touch screen, with various lyrics visualization modes (2/4/12 lyrics lines, if included in the song). Please remember to adopt normal display touch screen instructions (i.e. use plastic rounded pointed objects or recommended tools for this kind of display, as an alternative to finger pressure, but never use metallic or pointed tools). Same care must be taken for the whole unit.
- ➤ Presence of effects available for audio inputs (Reverb / Chorus / Compressor / Guitar amp simulator with drive / Delay regulation), with new implementations on future SW versions.
- > Audio playing through 24 bt 44.1 KHz codec, 32 bit internal sound processing.
- You can tilt the unit in 3 positions, to optimize visualization.
- > ROM flash card operative system.
- ➤ Linking inputs wide availability (4 USB 2.0 / Lan Ethernet 10/100 / LPT (to import songs from Charlie Lab Megabeat Pro) / Serial Port / VGA video outputs and Composite Video, etc.), if you use a Mini ITX motherboard.
- "Real Time" operativity for most of the functions.
- You can create many completely independent archives * (only sounds and samples sets will be in common), so you can divide the different repertoires, and they will be easily recognizable through different colour background assignment.
 - * Every archive can contain a maximum song number between 10.000 and 60.000, depending on quantity of characters used for song.
- > "IMPORT" function from audio CD (CDA grabbing).

Getting Started

First connect the supplied cable with the VDE connection, to the correspondent plug placed on MatrixOne rear panel. Connect the other end of the cable to the 220 V electric plug. Any damage depending on use of damaged cables or of a cable different from the one included in MatrixOne package, will not be accepted in warranty.

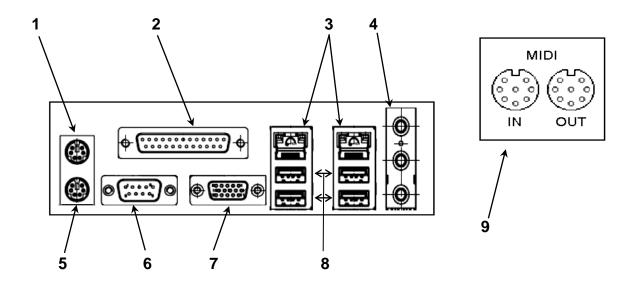
Connect the audio cables, not included in the package, to balanced Cannon signal outputs or to unbalanced Jack outputs, placed on MatrixOne rear panel, to your audio P.A. inputs (amplified speakers, power amplifier, mixer line input, your home HI-FI AUX or TAPE inputs). Please remember to keep audio P.A. volume levels to zero before turning MatrixOne on or off through the button on rear panel. ESS rejects any responsibility for any damage caused if this important rule is not observed.

Rear panel. Audio In/Out connections



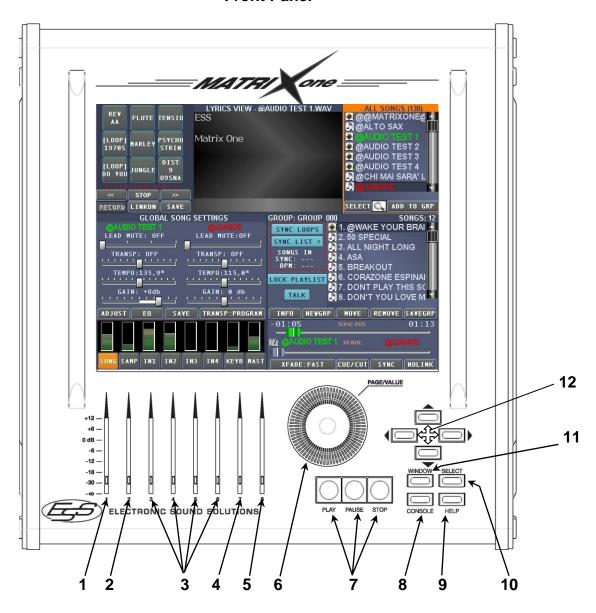
- 1) Connections for pedal switch. Using the special ESS pedal switch (optional) you can choose function assignment between SONG + or and Play&Stop, or input patch change, or keyboard performance change. You can choose the various options in CONSOLE→UTILITY→GLOBAL→ PEDAL1/2 MODE.
- 2) Pre-amplified headphones outputs. If in "MAST" MON=LR" is lighted (default, red button background) the signal will be the same as "MASTER R/L", while if "MAST" MON=LR" is not lighted (white button background) you will be able to to individually adjust the different sound sources (Song Samples In 1/2/3/4 Keyboard and reverber percentage regarding Audio inputs.
- 3) Main outputs Left/Right, unbalanced Jack 1/4".
- **4)** Main outputs Left/Right, balanced XLR Neutrik™.
- 5) Independent monitor outputs L+R. Same regulation as the headphones one.
- **6)** 4 audio inputs, mono XLR/Jack Neutrik™ balanced.
- 7) MatrixOne On/Off Button.
- **8)** VDE power cord.
- 9) Cooling fan grid. To have a correct internal ventilation, please be careful not to obstruct it with objects or other. Same care has to be taken also with air grid on the bottom of the unit.
- **10)**4 hardware filters 12 dB/oct. at 100 Hz, individually adjustable for each of the 4 analog audio inputs. It can be used, for example, as an "antipop" filter using sound sources as a voice.
- **11)**RCA connector output, to be connected to any TV set or any other video unit, compatible with "Video Composite" type signal.

Right side panel. Connections



- 1) PS/2 mouse input, activated combining keys when MatrixOne is turned on, (see included "Emergency Keys" document)
- 2) Parallel port (LPT1), to import files, via cable, from "Charlie Lab Megabeat Pro"
- 3) 2 Ethernet RJ45 Ports (currently disabled)
- 4) Integrated sound card connections (currently disabled)
- 5) Input PS/2 keyboard Pc always active (first connect the keyboard then turn MatrixOne on)
- 6) COM1 serial connector (currently disabled)
- 7) VGA Connector, to connect to an external video monitor, with 2 display modes:
 - TV/VGA (Only text, with or without chords display, if included)
 - TV/VGA Clone (copies what is displayed on MatrixOne display)
- 8) 4 USB 2.0 ports
- 9) MIDI Ports

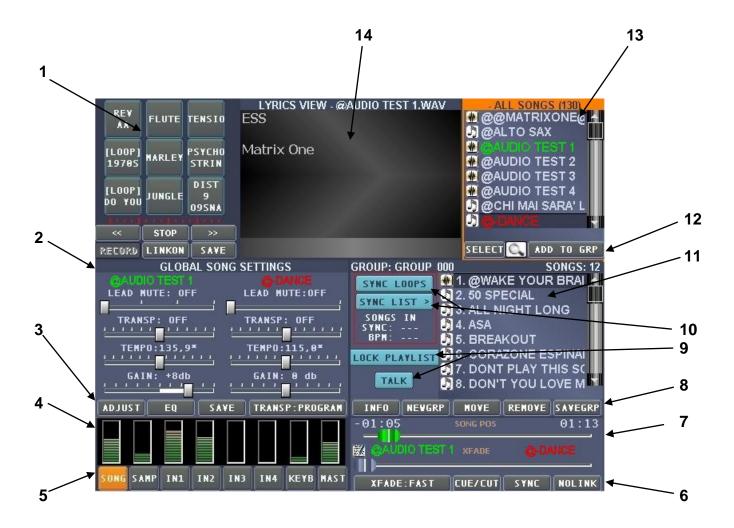
Front Panel



- 1) MIDI and Audio player volume.
- 2) Samples player volume.
- 3) 4 audio inputs independent volumes.
- 4) MIDI connected keyboard volume.
- 5) Main Volume. Intervenes on all volume levels 1/2/3/4.
- 6) Knob to adjust values and to make regulations depending on selected display.
- 7) Play/Pause/Stop buttons (Pressing stop and then Play the selected song will be played from the beginning).
- 8) Button to access the virtual keyboard and to functions like Lyrics Editor, to insert lyrics in MIDI or Audio songs.
- **9)** Button to enter Help function. Selecting this mode, the description of functions regarding the selected screen will be displayed.
- 10) Selection button, in alternative to touch screen use
- 11) Button to select one of the available screens, in alternative to touch screen use.
- **12)** Cursor keys to select parameters depending on selected screen and to browse songs list without using touch screen. The buttons can be used also to enter (Dx) or to exit (Sx) from various folders that are in "BROWSER" screen , in the right upper corner, and for other functions.

Main screen description & quick guide to use

Before turning MatrixOne on, please check no devices are connected to USB ports. Once you press power button, after a brief delay (~30 sec.) the display, touch screen, will show the main unit display.



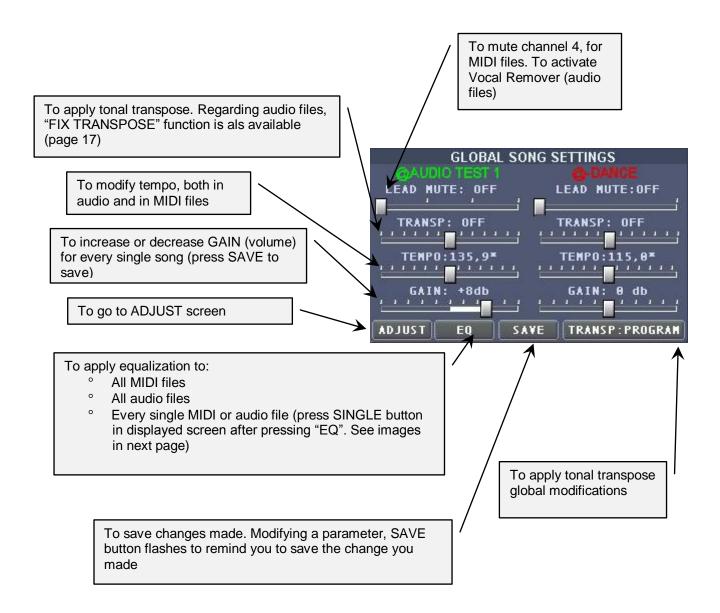
- 1) Samples section, which consists of 9 buttons you can assign 9 samples you can choose from the folder with the same name in the BROWSER display. You can also load, through the two buttons on the right and of the left of the "STOP" button, the list of 9 user-saved samples. Another special function is you can insert samples synchronized with a loop (LINKON)
- 2) Section regarding the song currently playing (CURRENT SONG, or song title if currently playing) and the song you want to play next (NEXT SONG or pre-selected song title).

You can also MUTE a MIDI song melody track (ch4), while for audio song you can choose between "MALE" Lead Mute, useful with male voice, and "FEMALE", in the case of a female voice, or "HYBRID", generic voice canceler.

Note: Please remember, about Vox Remove function ("Lead Mute" on audio), the end result depends on file quality. The most important parameters which affect the result are:

- ° If the main voice is heavily reverberated, the reverber will be audible
- If the main voice has been processed with stereo effects, the result will be the partial voice removal
- The result will be qualitatively better if you work with non-compressed files (".wav, but please note that converting from mp3 to wav does not improve initial file quality level.)

With both MIDI or Audio song you can change key, without altering tempo, or modify tempo without changing key. For every song you can also modify and save GAIN (volume) for each single song.





Ex.: In this case equalization will be applied to single MIDI song (or audio song if an audio song has been selected)



Ex.: In this case equalization will be applied to all MIDI songs (or audio songs if an audio song has been selected)

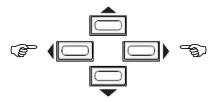
- 3) Buttons group including "ADJUST" (see specific following section), "EQ", which lets you apply and save equalization for each song (SINGLE button), "SAVE" to save the changes you made, and "TRANSP", where you can choose between various pre-loaded song transpose presets ("NEXT SONG").
- **4)** Section where, through touch screen pression, you can alternate level indicators display for each of 8 available sound sources, a frequency spectrum analizer or a useful and easy to use clock.
- 5) 8 buttons, to access to parameters for each of 8 available sound sources. Pressing and holding one of the "IN 1/2/3/4" buttons, a tuner will be turned on.
- 6) A buttons group including:
 - ➤ "XFADE", to select the cross fade type between a song and another. In "XFADE:OFF" position the selected song will begin playing immediately, then 3 different fade velocities are available:
 - "SLOW"=6 sec
 - "MED"=3 sec.
 - "FAST"=0.8 sec.

Note about XFade function: It's highly recommended to not execute a preselection of a song, while a cross fade between 2 other songs, is in act. So, wait until the fade is finished, before selecting another song.

- "CUE/CUT" (see brief note page 22).
- "SYNC", to match the currently playing song tempo (green) with the song waiting to be played (red)

- ➤ "NOLINK", button useful for various song loop in a group:
 - "NOLINK", no link, when a song is finished Matrix One will wait for next operation
 - "LINK", the group songs will be played one after another and when the last song is played Matrix One will wait for next operation
 - "LOOPALL", like in LINK, but when the last song is played, play will automatically resume from group first song
 - "LOOP1", repeats the same song (both the group or the browser one)
 - "RANDOM", repeats group songs randomly
 - "SELNEXT", plays a song, then selects the following one, and remains in pause, waiting for the user to press play
- 7) This display is divided between two parallel virtual sliders. The upper one, "SONG POS", lets you know the current song play position (you can drag the green slider cursor, as you like, forward and backwards during play). The lower slider, "XFADE", lets you display the selected fade type or to activate it manually. The text symbol which appears on the right of the song title currently playing (green) or on the left of the next song (red) is very useful. In this way you will be able to know in advance if the song waiting to be played includes text data.
- **8)** Buttons group including:
 - "INFO" which displays info on songs (current/next), and on any selected songs group.
 Pressing this button, the VIEWTAG key is also available, to display any other info about the selected song (Tags Mp3)
 - "NEW GROUP", to create a group from scratch
 - "MOVE", to modify a song position inside a group
 - "REMOVE", to remove a song from a group
 - "SAVEGRP", to save the displayed group
 - _
- **9)** These two buttons can operate the following functions:
 - ➤ LOCK PLAYLIST, to temporarily disable the preselection, this is useful for example, during songs search, so they are not automatically preselected. When activated, the key will flash, to warn you that the function is on.
 - ➤ TALK, function also known as "ducking", reduces instantly the volume of the song currently playing and removes temporarily reverb and any other effect in IN 1/2/3/4 analog inputs. This function can be very useful in case you want to make a very loud and clear vocal announcement. When this function is on, the key will be flashing, to warn you the function is on.

- **10)** Two buttons with synchro functions: "SYNC GROUP LIST" assigns a common medium bpm to songs with compatile tempo (+/-15% differences, max 100 songs), "SYNC SAMPLE LOOPS", samples synchro function (currently non available).
- 11) Songs list included in a group.
- **12)** "SELECT" to select a song, "ADD SONG" to insert a selected song in the underlying group list (11). The number of songs included in a group is theoretically unlimited, anyway, to avoid randomly mixing songs and so creating problems in songs management, it is advisable not to create groups with more than 150 songs.
- **13)** "ALL SONGS" list containing all the songs (MIDI/Audio) transferred on MatrixOne. Beside ALL SONGS you can see the songs number. You can browse the list through the side bar, or using cursor keys "▲ ▼". Pressing icon , the songs list will be extended, occupying the display right half. Press icon one more time to go back to standard display. As an option to touch screen, use ▶ key to enter and ◀ key to exit from the folders.



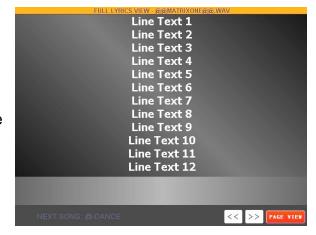
Pressing the cursor key "◀" you can enter in "BROWSER", where you can find the following folders:

- > -ALL SONGS (all songs (MIDI+Audio)
- > -AUDIO SONGS (only Audio songs)
- ➤ -MIDI SONGS (only MIDI songs)
- ➤ GROUPS (saved songs groups)
- ➤ INPUT SCENES (saved presets of 4 Inputs regarding EQ, Rev, and all the effects parameters of channel input single channel)
- LYRICS (txt files to input MIDI or Audio songs lyrics)
- ➤ MASTER SCENES (saved presets regarding "MASTER" display (monitor, graphic EQ etc.))
- > PERFORMANCES (saved presets regarding "KEYB" display)
- ➤ SAMPLES (5 folders divided by audio samples type)
- SOUNDFONTS (SF2 format sound presets)
- > STYLES (styles for integrated arranger, in ".sty" format)

14) Section about visualization of lyrics and chords if they are included in the songs. The little red "dot", in the display lower left, flashes depending on events contained in MIDI 4 track, usually the one with the melody.

Pressing anywhere in "LYRICS VIEW" display you can take the display visualization in

"FULL LYRICS VIEW", that's the full screen visualization mode, where you can also find the "Music-stand" mode, that you can activate through the "PAGE VIEW" button that lets you display up to 12 lyrics lines



A quick look to the main functions and screens

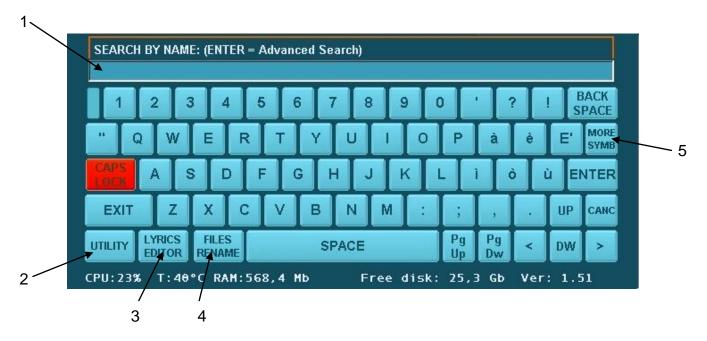
Pressing the "CONSOLE" key, in the lower left, the underlying screen will appear, occupying the display lower half.



To exit CONSOLE press the said key one more time, or press "EXIT" directly from CONSOLE. The keys are similar to a PC keyboard, with the exception of some buttons we'll talk about later. You can also use a PC keyboard, connecting it to the Ps2 connector on the unit left side (point 5/page 5), and you must reboot Matrix or turn it on with the external PC keyboard connected, or use one of the 4 USB connectors, always on MatrixOne left side, if you have a PC keyboard with the said connector.

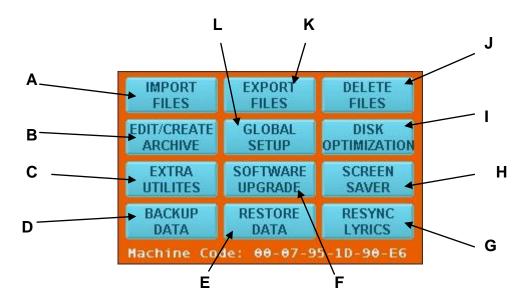
The available keys and the related functions are:

- Search by title always active from any window.
- Keys from F1 to F8 select the 8 square lower keys in the display.
- F9 enlarges/reduces the LYRICS window
- F10 enlarges/reduces BROWSER window
- F11 performs PLAY
- F12 performs STOP
- ESC opens/exits CONSOLE
- TAB browses through the various windows
- PAG UP/DW increases/decreases the value (PAGE/VALUE).
- The 1-9 keys (NUM PAD) perform the SAMPLES respectively from 1-9
- ° The CANC key (NUM PAD) stops all the SAMPLES playing.
- ° The +/- keys (NUM PAD) browse through the available PRESET SAMPLES.
- The HOME key takes browser visualization back to "ALL SONGS"



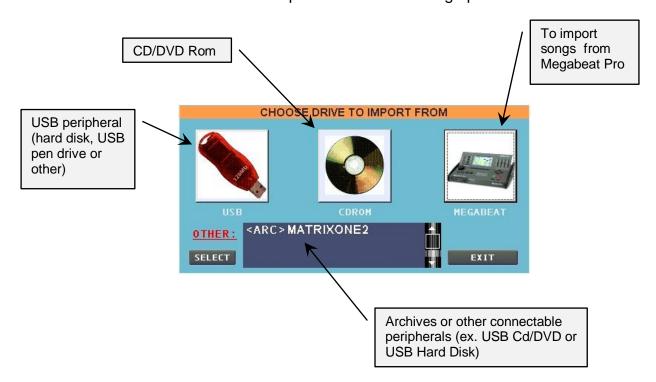
- 1) Space reserved to insert characters, useful for song title alphabetical search, for Lyrics editor and for files renaming.
- 2) The search modes are 2:
 - Normal search, depending on characters starting from left

- Characters search (ex. one word) inside a song title. After inputting characters, pressing ENTER key, Matrix One will highlight, in a temporary list, all the songs containing the characters just written, displaying them in BROWSER screen
- 3) "UTILITY" Key. After pressing this key, the following screen will appear:



A) To import all compatible files.

Choose the kind of device from which import files. The following options are available:



Please note that if one of these devices is connected, then the symbol will be clear and sharp, if not the symbol will be blurred, grey coloured. Regarding Cd/DvD and some USB Hard Disks, you must connect the device before turning Matrix One on. In case a CD/DVD Rom is connected, you will be able to directly import audio tracks on Matrix One.

The import format (Wav or Mp3) can be chosen in the RECORD display of "Master Monitor/Phones Sends" panel (to go there press the "MAST" button, in the display lower half).

After you press the button corresponding to the device you want to import the files from, you can choose the files you want to import.

For instance, pressing SELECT with "ALL SONGS" highlighted, all the compatible songs will be displayed, while "AUDIO SONG" will display only audio songs, "SAMPLE" Wav files to be assigned, then, to the 9 Samples buttons, "LYRIC" the lyrics (in TXT format), "SOUNDFONTS" the sounds in compatible format (Sf2), etc.



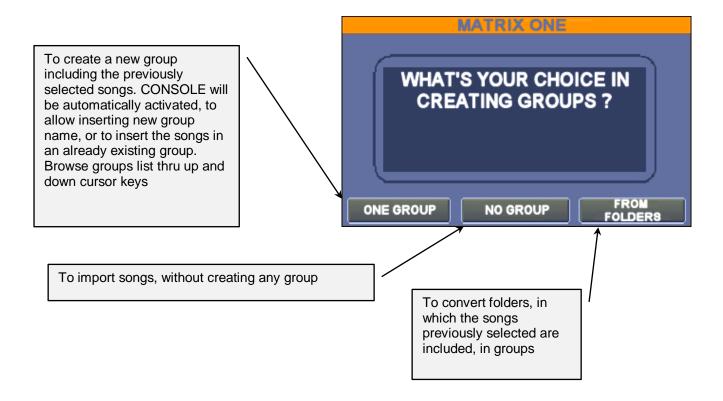
Matrix One will analize the connected device, displaying, in the following screen, only the type of file previously selected, in the case of the image, all the compatible songs (All Songs). You can listen to the songs in advance before importing them, simply selecting the song, and pressing the PLAY key. During play, the "TYPE" screen gives you info about file type you are listening to (mid/kar/wav/mp3), and, displaying a little icon, if lyrics are included or not in the song

About the keys in the lower screen half:

"SELL.ALL" to select all the elements
"DES.ALL" to delete the selection
"SELL.FROMTO" to select the elements
between two, previously selected
"SELECT" to select the highlighted element
"IMPORT FILES" to start copying the
selected files
"EXIT" to exit from the screen



The selected elements will be summarized in "Import List" window, on the right. Importing songs, after pressing "IMPORT FILES" key to start copying, Matrix One will ask, before finishing transfer, if you want to create songs groups:



Regarding data transfer from MegabeatPro, the operation can be canceled in two modes:

- Through "Megalink" data transfer cable, connected to dedicated MegabeatPro port, and to LPT port available on Matrix One right side
- Copying on a USB device that you will later connect to Matrix One, the PC folder where the data backup from Meagabeat Pro to PC through the "Megalink" software has been done. The folder where data from MegabeatPro has been saved must be the Megalink software save default folder, i.e. C:/Programmi/Charlie Lab/Megalink/Songsdata. Alternatively, rename as "Songsdata" the PC folder where the MegabeatPro backup has been saved.

Once you press the MegabeatPro button, the following message will appear:

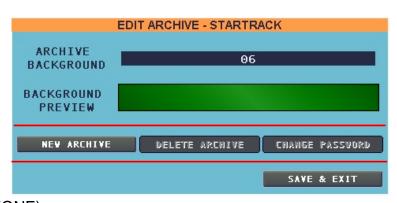


Notes regarding transfer from Megabeat Pro:

- Transfer depends on Megabeat Pro hard disk condition
- Transfer includes songs and groups
- Regarding MIDI files transfer, channels "Mute" are preserved, but single channel levels are not (if optimized for reproduction with Megabeat Pro sound generator) and any tempo changes saved on Megabeat Pro

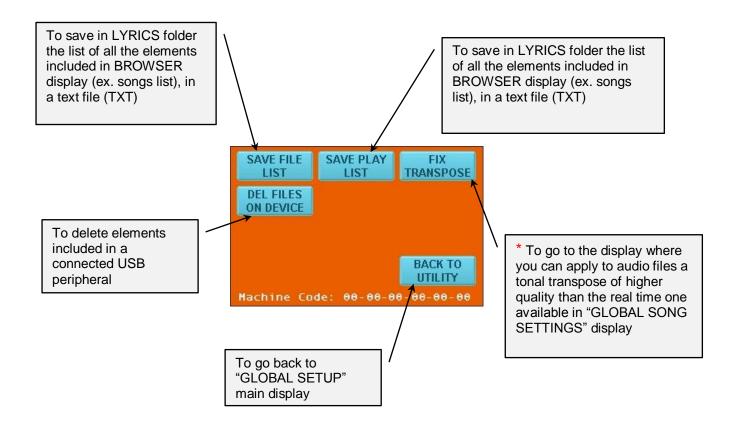
When transfer is done, pres "EXIT" to go back to "CONSOLE".

display. In this section you can create a new archive (NEW ARCHIVE), delete an archive, and if you want you can insert an access password to an archive. You can also assign different background colours for each archive (through Page/Value knob). Please note you cannot delete the main archive (MATRIXONE).



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C) Pressing "EXTRA UTILITIES" button you go to the following display



* About FIX TRANSPOSE function

This function, alternative to real time transpose (TRANSP:Off/On) in Global Song Settings, lets you apply tonal and tempo transpose to audio files, in case real time transpose does not work properly.

To use this function, apply real time transpose (in Global Song Settings display, and save), then go to "Fix Transpose" and select the song to be processed.

The "Keep Original" parameter (activated by default) lets you decide whether to create a new file, or overwrite the existing one. We recommend to hold this parameter activated, to keep the original file, later you will be able to delete the original file, if it will be of no utility.

The little underlying screen summarizes the parameters that have been set and that will affect processing (press play to display "TRANSP:")



Pressing settings button you can go to the display where you can adjust processing optimization parameters:



The musical genre of the file you want to process:

- > Generic : generic processing
- ➤ Single Instrument : specific processig for every instrument
- ➤ Modern Music 1: modern music, rhythmic (ex. Dance/Rock etc.)
- ➤ Modern Music 2: not so rhythmic music (ex. Ballad/Slow etc.)
- Classic Music 1: classical music with high armonic content
- Classic Music 2: classical music with medium armonic content

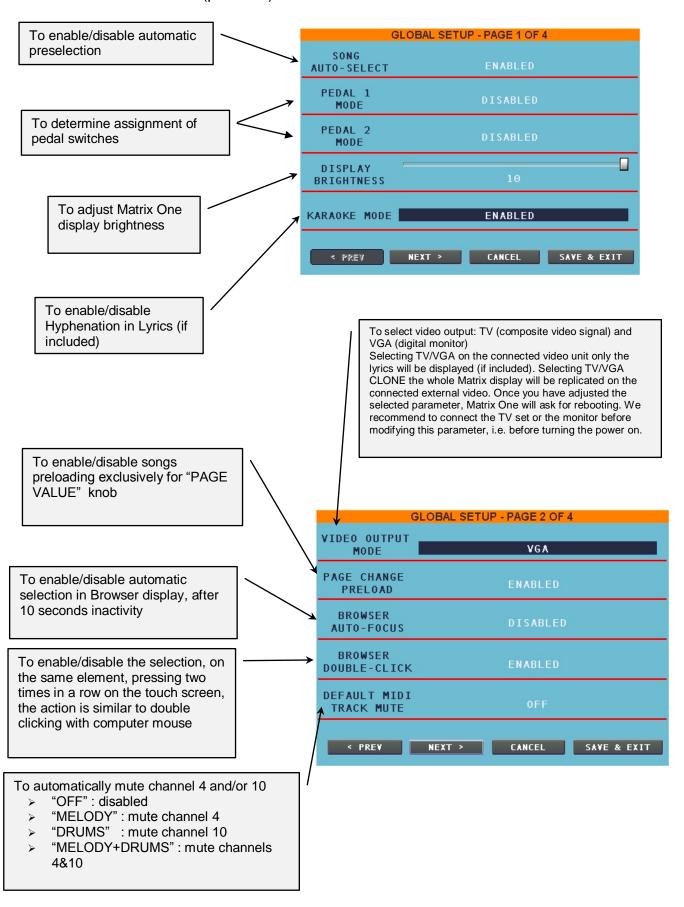
Format of the files after processing:

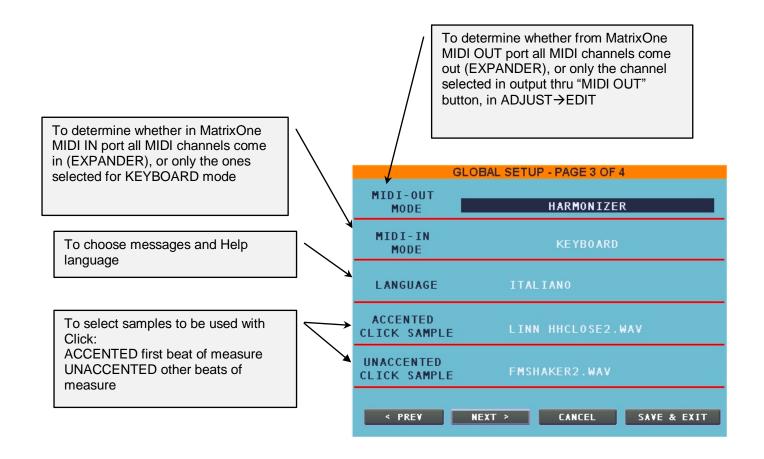
- > Way, non compressed
- ➤ Mp3, with compression level choice ("OUTPUT BITRATE")

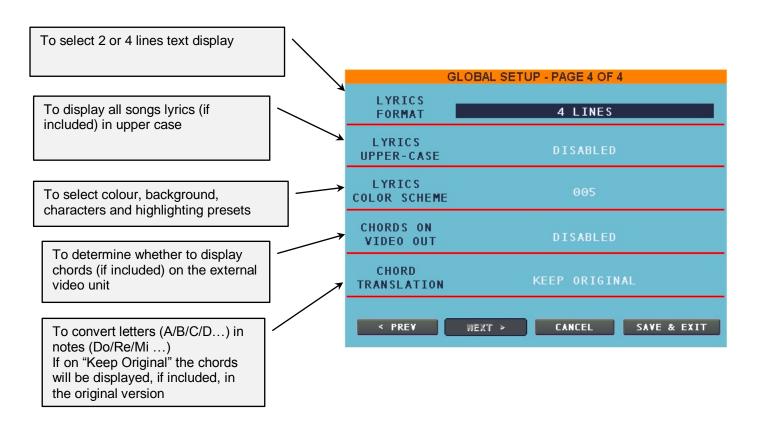
Press the "Process Files" button to start processing. As already said, if selected, the "Keep Original" parameter (activated by default) will create a new song, that will retain the original title, adding at the end of the name the chosen transpose. If "Keep Original" is not activated, the original file will be overwritten by the new one, which has been processed.

- **D)** To perform BACKUP, in other words a copy of data contained in Matrix One on a USB connected device. Please note that regarding archives, the backup must be managed individually by archive..
- **E)** To copy data regarding a backup just finished, or to bring Matrix One back to factory settings.
- **F)** To install software upgrades
- **G)** To re-synchronize lyrics, expecially after importing from Megabeat Pro. After the key is pressed, a dialogue window will be displayed where you can choose between various options.
- **H)** To activate scree-saver.
- I) Perform this operation from time to time, remembering that the unit can be busy for a long time. This operation deletes the files you have canceled in a very long time, freeing space, and later performs a defrag on hard disk.
- **J)** To delete files. The processing is similar to the import files one (See A)

- **K)** To export to a write-ready device, connected to Matrix One. The processing is similar to the import files one (See A)
- **L)** Display dedicated to adjustment of various parameters divided in several screens that you can browse with PREV (previous) and NEXT:



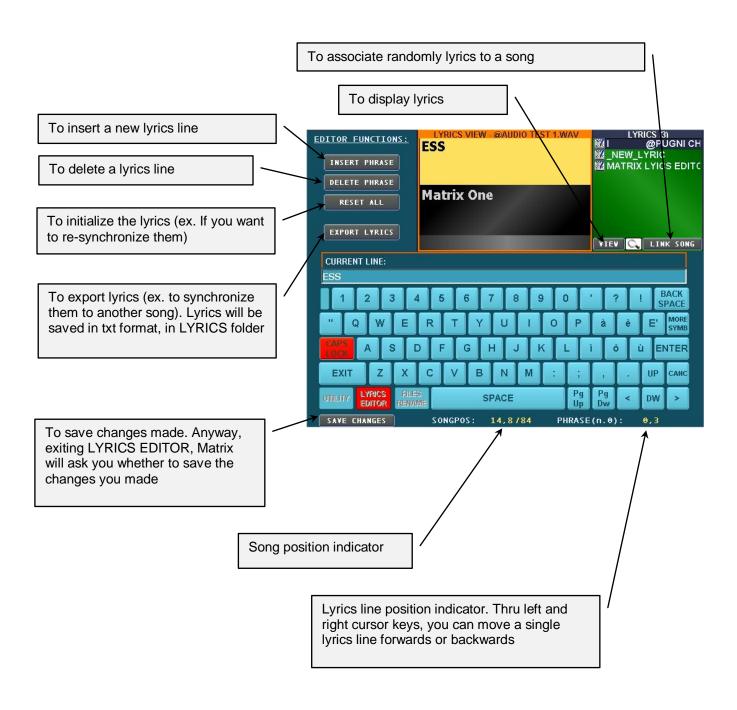




To exit the display without saving changes press "CANCEL" key To exit the display saving changes press "SAVE & EXIT" key

Going back to "CONSOLE":

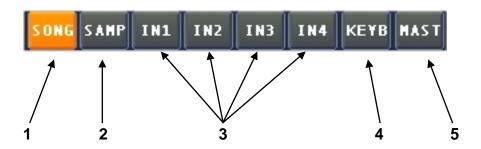
4) To modify or insert lyrics in the songs. Inserting lyrics in the song is very simple. After inserting lyrics or importing them in TXT format, press PLAY to play the song and press SPACE key to insert lyrics lines that Matrix will display.



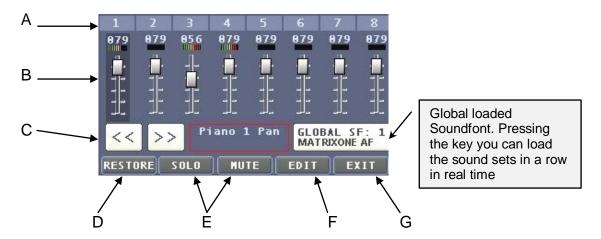
4) To rename songs. After pressing this key, select the song to be renamed. In the CONSOLE (1) dedicated space, the name of the song to be renamed will appear. The "Keep original" parameter will let you decide whether to modify the name of the selected song (parameter on "NO", default) or to create a copy of the song with a new name (parameter on "YES"). Apply changes and press CONSOLE "ENTER" key.

5) To use other symbols

Let's have a look now to the displays, and relative functions, of the 8 buttons bar you can find in the lower left corner, corresponding to the 8 sliders to adjust output volume. These buttons let you select the sound source to intervene on.

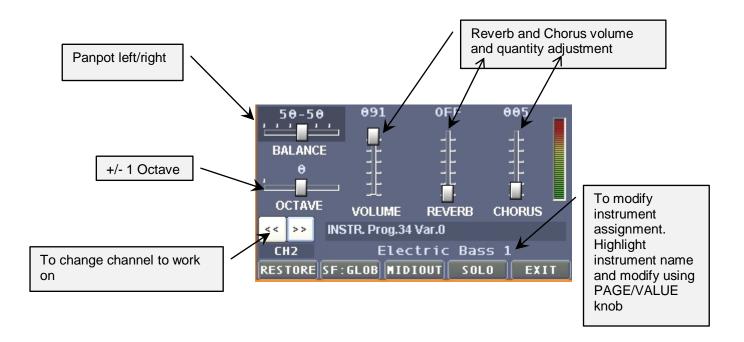


1) This display functions have already been shown in the main screen description, at point 2. Anyway it's important to have a better knowedge about functions available when you press "ADJUST" key:



- A) MIDI channel number. Underneath you'll find volume value and single track activity indicator
- B) Volumes Sliders
- C) To go to next channels screen

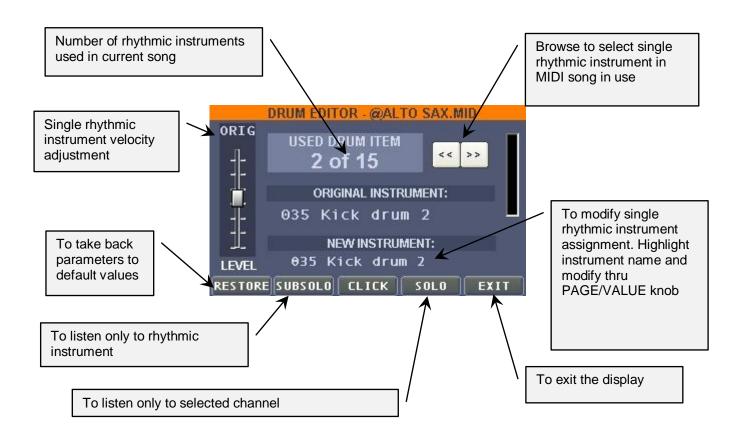
- D) To go back to original parameters values
- E) "SOLO" to listen only to the selected channel, "MUTE" to mute it
- F) After pressing "EDIT" key, the screen where you can make important changes to the selected track will be displayed:



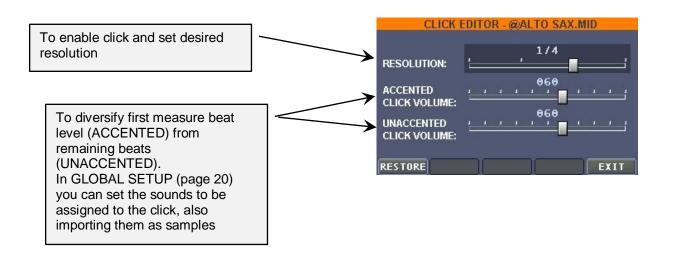
About buttons in the lower half, from left to right:

- "RESTORE": To restore original values.
- ➤ "SF:GLOB": To assign to the single MIDI channel an instrument generated by a soundfont different from the global one.
- "MIDIOUT": To decide whether track events go out from MIDI OUT port (useful in case of an external harmonizer).
- "SOLO": To listen only to the selected channel.
- EXIT": To exit from the screen. After pressing "EXIT" you will be asked, through the pop you want to save pop up, whether to save changes (Yes) or not to save them (No). Obviously, press "YES" to save changes or "No" to go back to the previous display without saving changes. Please note changes will be valid until "RESTORE" key will not be pressed, or after another song has been played.

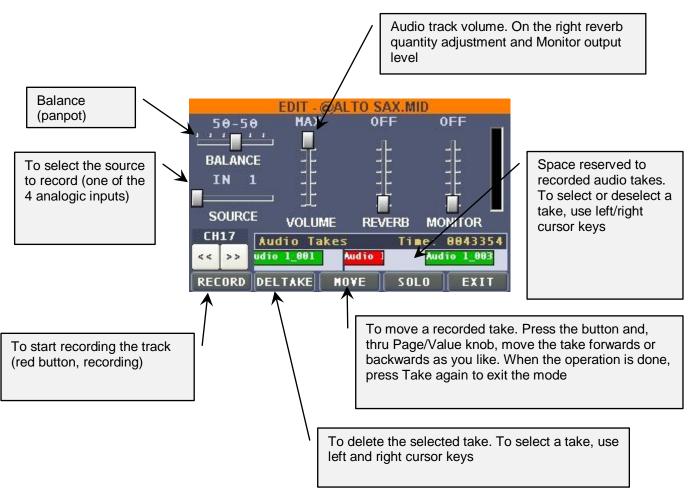
Selecting channel 10, the "MIDIOUT" key will change in "DRMEDIT", where you will be able to change velocity and modify single drums sound inside the drum kit being used.



Pressing "CLICK" button will take you to another display, where you can activate the click for MIDI files.



Browsing through the channels, after the sixteenth, the last MIDI one, the screen has 8 sliders more, from 17 to 24, corresponding to 8 audio tracks available for recording, synchronized with a MIDI song.



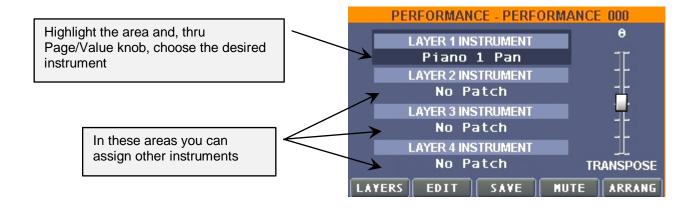
Going back to the 8 buttons bar you find in the lower left corner:

- 2) In this screen you can individually modify volume, sampling frequency and panpot, for each of the 9 loaded samples.
- **3)** This screen has individual settings for each of the 4 analog inputs. Once you press the button corresponding to the input you want to modify, (ex.IN1), the 4 bands equalizer is displayed, parametric on middle frequencies, and the reverb quantity adjustment. The underlying buttons are the following:
 - "RESTORE", to go back to neutral equalizer position and zero reverb.
 - ➤ "FREQ", to assign parametric EQ frequency intervention (active only on middle-low and middle-high frequencies).
 - ➤ "SAVE", to save all the settings, included the following parameters, in "SCENE" to whom you can assign a name through th CONSOLE that will automatically activate as the button will be pressed.

- ➤ "FX", to access the available effects, currently: Compressor, Chorus, Combo (guitar amplifier simulator) and Delay. Select the desired effect through the FX and FX + buttons. The "ACTIVE" button is also available to turn the effect on (red) or off (grey).
- "EXIT" to exit the screen
- **4)** The other functions you can activate through this button are intended for a MIDI keyboard (not included) you can connect to MatrixOne MIDI IN port (connect the cable other end to keyboard MIDI OUT port) and to the available arranger.

The first screen is relative to the MIDI keyboard connected to MatrixOne.

You can assign up to 4 "LAYERS", areas on the keyboard, 4 different instruments.



The buttons in the lower half of the display:

- "LAYERS", to go to the display where you can decide the keyboard area to assign a specific instrument to
- Fig. "EDIT" to go to the display where you can adjust volume and balance (panpot), effects (Reverb/Chorus) and the soundfont to be used for every single layer
- "SAVE" to save the "PERFORMANCE". As in similar cases, the CONSOLE will automatically activate so you can assign the name, in this case, to the PERFORMANCE you created
- "MUTE" to mute the selected layer

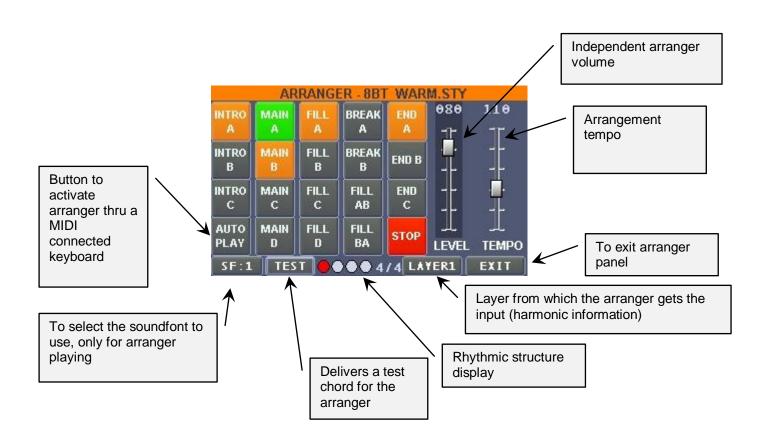
"ARRANG" to go to the arranger functions, on this subject you'll find more information hereby.

To use the integrated arranger in Matrix One, you must at first load a STYLE, then go on the ALL SONGS display, in the upper left corner, and then press the left cursor button to go to the BROWSER display.

Then you have to browse the various folders and enter, through the right cursor button or using the touch screen, in "STYLES" folder and load, pressing the "LOAD STYLE" button, one of the many STYLES preloaded on Matrix One. As we already said styles are in the very common STY Format, and you can also find them for free on internet.



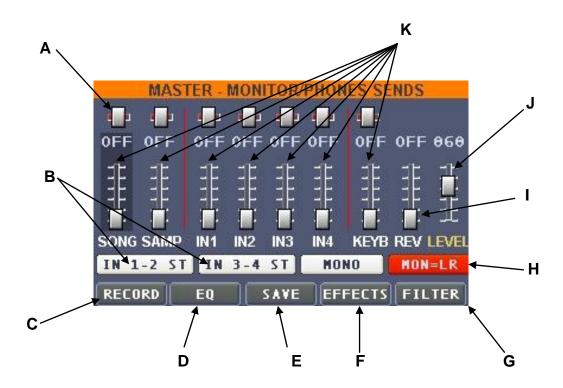
Once you loaded a STYLE, the arranger is ready to be used. Please note that depending on the style you loaded, more or less variations will be available.



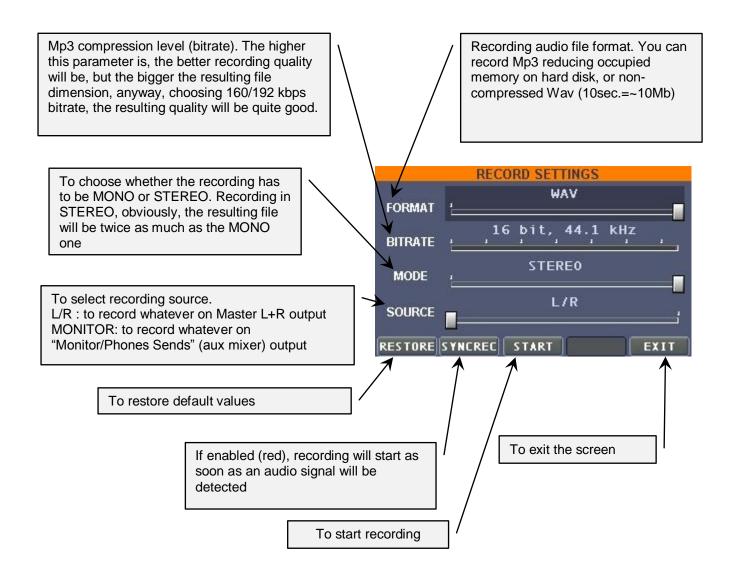
Going back to the last one of the 8 bar buttons you find on the lower left corner:

5) In this screen you can adjust monitor and headphones output sends of the 7 sound sources available (the MIDI&AUDIO songs, the samples, the 4 analog inputs and any keyboard connected thru MIDI), and also the reverb level, so you can customize and suit to your needs the main Left/Right outputs, from monitor signals, if they are connected, and of the headphones. Other functions connected to this panel are the audio recording, the global equalization in output and the effects...

After you pressed the "MAST" key the following screen will be displayed:



- **A.** Balance (panpot) individual adjustment of every sound source.
- **B.** Buttons to determine whether 1-2 inputs have to be considered as 1 stereo channel or 2 mono channels. Same as 3-4 inputs. If buttons are white channels will be considered singularly (4 mono channels), if red channels will be linked, becoming 1 stereo channel.
- **C.** This button leads you in the specific panel to audio signal recording on Left/Right main outputs, or Monitor, so you can record, in real time, your live performances, a function always demanded on this kind of units.
 - About this panel, please find hereby a description of the available functions:



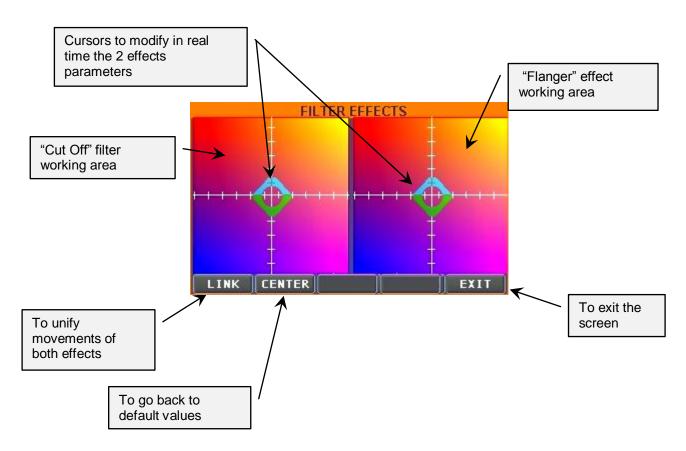
- **D.** The portion of the screen dedicated has a 8 bands graphic equalizer for mail Left/Right outputs. The available frequencies are shown under the increase/decrease sliders. In the lower half three buttons:
 - a. "Restore" to go back to default values
 - b. "PNOISE" gives out a test signal.
 - c. <u>Important Note:</u> be sure to keep the sliders on zero before activating this function. Then increase their value slowly before pressing "PNOISE" button. ESS declines any responsability for any damage caused to audio P.A. systems due to non observance of this important use caution
 - d. "EXIT" To exit the screen.
- **E.** To save the mixing that has been set in scenes that will later be loaded, choosing them, in "BROWSER" screen, in "MASTER SCENES" folder.
- **F.** Pressing "EFFECTS" button takes you to the screen on which you'll find the following settings:
 - "AUDIOREV", where you can adjust reverb parameters to be applied only to audio sources.
 - "MIDREV", to adjust reverb parameters to be applied only to MIDI songs

"MIDCHOR", where you find chorus parameters to be applied only to MIDI songs

Note: It's at Matrix One user discretion to adjust levels as he likes, anyway we remind you that an excessive level (expecially of MIDCHOR) can produce unpleasant results in MIDI playing. MIDREV and MIDCHOR default level settings (LEVEL) are respectively:

MIDREV : 025MIDCHOR : 004

G. "FILTER" takes you to the colourful screen where you can modify in real time the parameters for 2 effects, a powerful Cut off filter and a rich flanger, simply moving with a finger, on the touch screen, the available cursors.



Note: Exiting the screen, the modification made thru "FILTER", will be automatically canceled

H. If set on "MON=LR" (red), the signal on Monitor and Phones outputs will be the same as the one on main Left/Right outputs, otherwise the levels set in the screen (MASTER -MONITOR/PHONES SEND) will be active, giving you the chance to have on Monitor/Phones outputs diversified signals from main Master L+R outputs

- I. Reverb level in monitor and headphones outputs
- **J.** Monitor and Phones independent volume level (if Mon=L+R the volume will be affected from MASTER (MAST) slider level
- **K.** Levels of the seven sound sources (active if "MON=LR" is coloured grey)

A look at the browser and at the folders and functions included:

_ALL SONGS: Cursor key on this folder to go to the complete list of songs that are in the single archive. To play a song just highlight it (red) and press play to start playing (green). You can select the next song you want to play, simply highlighting it. The song title will become red, i.e. the song is preloaded and waiting for the Play button to be pressed. The selection can be made manually, pressing SELECT key (under the songs list) or pressing the hardware key SELECT (page 6 point 10)



- _AUDIO SONGS: Displays only audio songs (wav/mp3/ogg/mod)
- _MIDI SONGS: Displays only MIDI files, mid and kar, marking them by the colour

Midifiles: black icon

Kar files: red icon

- GROUPS: In this folder you can find the list of the songs groups created by the user when they are imported, or later. Placing on a group name, pressing the right cursor button, the list of the included songs is displayed, in alphabetical order, and you can play the songs from this position, anyway for an avanced group management (playlist), you must load the group in the underlying screen (GROUP), pressing the LOAD GROUP key on the group name. Once the group is loaded, using the buttons in the GROUP screen lower bar, you can:
 - Add songs to the group, choosing them from the browser
 - Remove a song from the group REHOVE
 - Move a song position inside a group, rows: press the key that will turn red, with left/right cursor buttons move it where you want, then press the button again to exit from this mode

- ° Create a new group **EVGRP*: automatically CONSOLE will ask you the name to assign to the new group. Once you've inserted the name, press ENTER to confirm
- Save a group SAVEGRP: modify a group, remember to save the changes)
- Save one of the linking modes between songs contained in a group (see page 8)

Note about deleting a group:

_Deleting a group, remember that if it's loaded in the GROUP screen, Matrix will not delete the group (download it from GROUPS before deleting it, loading another one, or pressing NEW GROUP and further CONSOLE appears, without typing anything, close it, press CONSOLE key one more time)

_When you delete a group, Matrix One will ask you confirmation thru the message:

SURE YOU WANT TO DELETE?

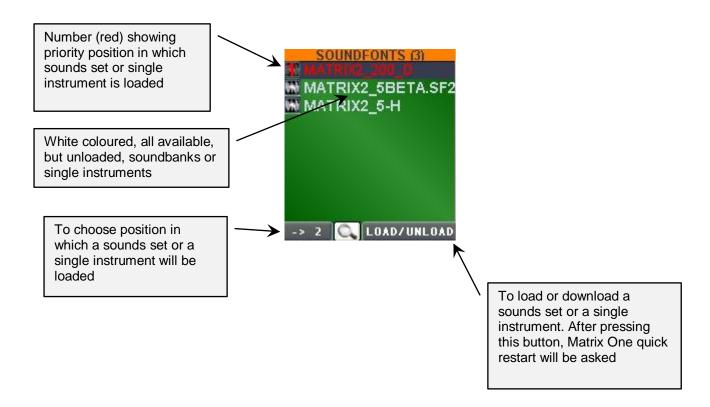
Once you press YES, the unit will ask:

DO YOU WANT TO DELLETE
ALSO GROUP'S SONGGS
DEFINITELY?

If later "YES" is pressed, together with the group also the songs contained in it will be deleted by Matrix One, with no regard to the presence of these songs in other groups. If you only want to delete the group, and keep the songs in the archive, press "NO".

- INPUT SCENES: Where you can save and load equalization and effects presets regarding In1/2/3/4 single analogic inputs
- LYRICS: Where you can save and load text files (txt)
- PERFORMANCES: Where you can save and load PERFORMANCE section settings preset (KEYB key)
- SAMPLES: Where you can save and load samples divided in folders by type.
- SOUNDFONTS: Where you can manage soundfonts. The available positions are 4, anyway remember that "1" position is the main one for MIDI files playing.

The loaded soundfonts are highlighted in red colour, while the unloaded ones are highlighted in white.



Note:

_Normally, Matrix One with default preloaded sounds and 512 Mb Ram provided, uses about 180Mb RAM for managing the system, anyway it's advisable to check in "Console" the RAM parameter, veryfying it is not less than 120Mb (for example when other soundfonts are loaded). Please remember that you can extend RAM memory to 1G for sounds loading reasons.

_We recommend you caution in managing sound presets, expecially if "GLOBAL SF:" parameter has been saved, in ADJUST screen.

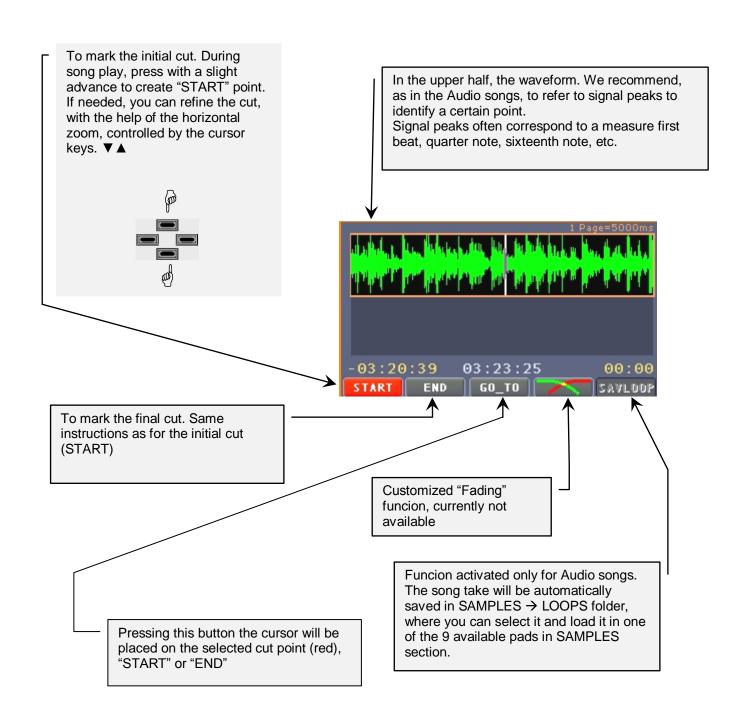
STYLES: Where you can import and load styles in .sty format (Yamaha™)

"CUE/CUT" Function

Please note that in this function, very useful to "cut", and more, the songs as you like, the display of MIDI and Audio songs is represented by a waveform, a common thing for audio files but a new concept for MIDI files. Therefore a specific point in a MIDI file will not be determined by way of musical measures, but instead graphically, as a waveform model.



Once a song is selected (green), pressing the "CUE/CUT" key, after the very short message "BUILDING WAVEFORM FROM FILE", the display usually dedicated to groups management, will be substituted from the following panel:



Technical informations

Input channels sensitivity: Micro -40 dBm balanced (max 0 dBm)

Line -10 pseudo (max 0 dBm)

Input Low Cut filter -12 dB oct. at 100 Hz

Output Master/Monitor 0 dBm Pseudo-balanced

MIDI Connections IN Only for MIDI keyboards

OUT A channel at a time (selected from user)

Pedal jack Stereo for three buttons pedal

Mono 1 button pedal

Available sounds list in "MATRIX 2_200" sound bank

CC0:Pc#

000:001 Piano 1 Pan 000:065 Soprano Sax 000:033 Acoustic Bass 000:002 Piano 2 000:034 Electric Bass 1 000:066 Alto Sax Vib 000:067 Tenor Sax Vib 000:003 Piano 3 000:035 Electric Bass 2 000:004 Honky Tonk 000:036 Fretless Bass 000:068 Baritone Sax Vib 000:005 Ep 1 Rhodes 000:037 Slap Bass 1 000:069 Oboe 000:006 Ep 2 Dx7 000:038 Slap Bass 2 000:070 Eng. Horn 000:039 Synth Bass 1 000:007 Harpsichord 000:071 Bassoon 000:040 Synth Bass 2 000:008 Clavinet 000:072 Clarinet 000:009 Celesta 000:041 Violin 000:073 Piccolo 000:010 Glockenspiel 000:042 Viola 000:074 Flute 000:011 Music Box 000:043 Cello 000:075 Recorder 000:012 Vibraphone St 000:044 Double Bass 000:076 Pan Flute 000:045 Tremolo Strings 000:013 Marimba 000:077 Bottle Chiff 000:014 Xylophone 000:046 Pizzicato 000:078 Shakuhachi 000:015 Tubular Bells 000:047 Harp 000:079 Whistler 000:016 Santur 000:048 Timpani 000:080 Ocarina 000:017 Organ 1 St 000:049 Strings 1 St 000:081 Square Wave 000:018 Organ 2 000:050 Strings 2 St 000:082 Saw Wave 000:019 Organ 3 St 000:051 Synth Strings 1 000:083 Calliope 000:020 Church Organ St 000:052 Synth Strings 2 000:084 Chiffer Lead 000:021 Reed Organ 000:053 Choir Aahs 000:085 Charang 000:022 Accordion 000:054 Voice Oohs 000:086 Solo Vox 000:023 Harmonica Vib 000:055 Synth Vox St 000:087 5th Saw Wave 000:024 Bandoneon 000:056 Orchestra Hit 000:088 Bass & Lead 000:025 Nylon-str. Gt 000:057 Trumpet St 000:089 Fantasia 000:026 Steel Gt 1 000:058 Trombone 000:090 Warm Pad St 000:027 Jazz Gt 000:091 Poly Synth St 000:059 Tuba 000:028 Clean Gt 000:060 Mute Trumpet 000:092 Space Voice St 000:093 Bowed Glass St 000:029 Muted Gt 000:061 French Horns 000:030 Overdrive Gt 000:062 Brass St 000:094 Metal Pad St 000:063 Synth Brass 1 000:031 Distortion Gt 000:095 Halo Pad St 000:032 Guitar Harmonics 000:064 Synth Brass 2 St 000:096 Sweep Pad St

000:097 Ice Rain St 002:121 String Slap 008:051 Syn Strings3 St 000:098 Soundtrack St 002:123 Thunder 008:053 Choir Aahs 2 St 000:099 Crystal St 002:124 Horse Gallop 008:057 Flugel Horn 000:100 Atmosphere St 002:125 Door Creaking 008:062 Brass 2 St 000:101 Brightness St 008:063 Brass 3 St 002:126 Car Stop 000:102 Goblin 002:127 Screaming 008:065 Soprano Sax NoVib 002:128 Lasergun 008:066 Alto Sax Growl NoVib 000:103 Echo Drops 000:104 Star Theme 003:123 Wind 008:067 Tenor Sax Growl Vib 000:105 Sitar 003:124 Bird 2 008:126 Starship 000:106 Banjo 003:125 Door Slam 009:026 AcouGt-St 000:107 Shamisen 003:126 Car Pass 009:027 Jazz Gt 2 St 000:108 Koto 003:127 Punch 009:028 Clean Gt St 000:109 Kalimba 003:128 Explosion 009:126 Burst Noise 000:110 Bagpipe 004:040 Hyper Hammer 016:005 Wurly Vibrato 000:111 Fiddle 004:123 Stream 016:025 Nylon Gt o Vib 000:112 Shenai 004:125 Scratch 016:026 Mandolin 000:113 Tinker Bell 004:126 Car Crash 016:028 Clean Gt Tremolo 004:127 Heart Beat 000:114 Agogo 016:034 Dyna Bass 016:040 Hyper Rubber 000:115 Steel Drum 005:123 Bubble 000:116 Wood Block 005:125 WindChime 024:005 Wurly Clean 000:117 Taiko Drum 024:026 Ovatian 005:126 Siren 000:118 Melodic Tom 005:127 Footsteps 024:126 Burst Noise1 000:119 Synth Drum 006:126 Train 032:026 Steel Gt 2 000:120 Reverse Cymbal 128:001 Standard Kit 1 007:126 Jet Plane 000:121 Fret Noise 008:001 Acou Piano 1 128:002 Standard Kit 2 000:122 Breath Noise 008:004 Honky-Tonk w St 128:003 Standard Kit 3 000:123 Seashore St 008:005 Wurly Chorus 128:004 Standard Kit 4 008:006 Soft Rhodes 000:124 Bird St 128:005 Standard Kit 4 000:125 Telephone 008:011 AcouGt-St 128:009 Room Kit 000:126 Helicopter 008:022 Accordion It 128:017 Power Kit 000:127 Applause St 008:023 Harmonica NoVib 128:025 Electronic Kit 000:128 Gun Shot St 128:026 TR808 Kit 008:026 12Strings Gt 001:057 Trumpet St Vib 008:027 Funk Gt. 128:027 TR909 Kit 001:121 Gt Cut Noise 008:028 Chorus Gt St 128:033 Jazz Kit 001:122 Fl. Key Click 008:029 MuteGt2-Dist 128:041 Brush Kit 001:123 Rain 008:034 Y-Fingered Bass 128:049 Orchestra Kit 001:124 Dog 008:035 Y-Picked Bass 128:051 Kick&Snare 001:125 Telephone 2 008:036 Ale Bass 128:057 Sfx Kit 001:126 Car Engine St 008:039 Synth Bass 3 128:128 CM-64/32L Kit 001:127 Laughing 008:040 Synth Bass 4

008:050 Strings Sect 2 St

001:128 Machine Gun

Available sounds list in "MATRIX 1" & "MATRIX L" sound bank

CC0:Pc#

000:001 Grand Piano	000:046 Pizzicato Strings	000:091 Polysynth
000:002 Bright Piano	000:047 Harp	000:092 Space Voice
000:003 Piano 3	000:048 Timpani	000:093 Bowed Glass
000:004 Honky	000:049 String	000:094 Metal Pad
000:005 Rhodes Piano	000:050 Slow Strings	000:095 Halo Pad
000:006 E. Piano 2	000:051 Synth Strings 1	000:096 Sweep Pad
000:007 Harpsichord	000:052 Synth Strings 2	000:097 Ice Rain
000:008 Clavinet	000:053 Choir Aahs	000:098 Soundtrack
000:009 Celesta	000:054 Voice Oohs	000:099 Crystal
000:010 Glockenspiel	000:055 Synth Voice	000:100 Atmosphere
000:011 Music Box	000:056 Orchestra Hit	000:101 Brightness
000:012 Vibraphone	000:057 Trumpet	000:102 Goblin
000:013 Marimba	000:058 Trombone	000:103 Echo Drops
000:014 Xylophone	000:059 Tuba	000:104 Star Theme
000:015 Tubular Bell	000:060 Mute Trumpet	000:105 Sitar
000:016 Dulcimer	000:061 French Horn	000:106 Banjo
000:017 Organ 1	000:062 Brass 1	000:107 Shamisen
000:018 Organ 2	000:063 Synth Brass 1	000:107 Chamisen
000:019 Organ 3	000:064 Synth Brass 2	000:109 Kalimba
000:020 Church Organ	000:065 Soprano Sax	000:110 Bag Pipe
000:021 Reed Organ	000:066 Alto Sax	000:110 Edg 1 ipc
000:022 Accordion	000:067 Tenor Sax	000:111 Hadic
000:023 Hamonica	000:068 Bari Sax	000:112 Ghenar 000:113 Tinker Bell
000:024 Bandoneon	000:069 Oboe	000:114 Agogo
000:025 Nylon Guitar	000:000 Cbdc 000:070 English Horn	000:114 Agogo 000:115 Steel Drums
000:026 Steel-str Gt	000:071 Bassoon	000:116 Woodblock
000:027 Jazz Guitar	000:071 Dassoon	000:117 Woodblock
000:028 Clean Guitar	000:073 Piccolo	000:117 Talke Brain
000:029 Muted Gtr	000:074 Flute	000:119 Synth Drum
000:030 Overdrive Gt.	000:074 Fide 000:075 Recorder	000:110 Cyffii Didiff
000:030 Overdrive Ct.	000:076 Pan Flute	000:120 Reverse Cymb
000:032 Gtr Harmonics	000:077 Bottle Blow	000:121 Fret Noise
000:032 Cti Harmonics	000:077 Bottle Blow 000:078 Shakuhachi	000:122 Breath Noise
000:033 Acoustic Bass 000:034 Finger Bass	000:079 Whistle	000:123 Geashore 000:124 Bird Tweet
000:034 Finger Bass 000:035 Pick bass	000:080 Ocarina	000:124 Bild Tweet
000:033 Fick bass 000:036 Fretless Bass	000:080 Ocama 000:081 Square Wave	000:125 Telephone
000:037 Slap Bass 1	000:081 Square Wave	000:120 Helicoptei
•	000:082 Saw Wave 000:083 Synth Calliope	000:127Applause 000:128 Gun Shot
000:038 Slap Bass 2 000:039 Synth Bass 1	000:083 Synth Calliope 000:084 Chiffer Lead	128:001 Standard
000:040 Synth Bass 2		
•	000:085 Charang 000:086 Solo vox	128:009 Room 128:017 Power
000:041 Violin		
000:042 Viola	000:087 5th Saw Wave	128:025 Electronic
000:043 Cello	000:088 Bass & Lead	128:026 TR 808
000:044 Contra Bass	000:089 Fantasia	128:033 Jazz
000:045 Tremolo Strings	000:090 Warm Pad	128:041 Brush
		128:049 Orchestra
		128:057 SFX

Only for "Matrix L" set: 008:022 Accordion Master

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