

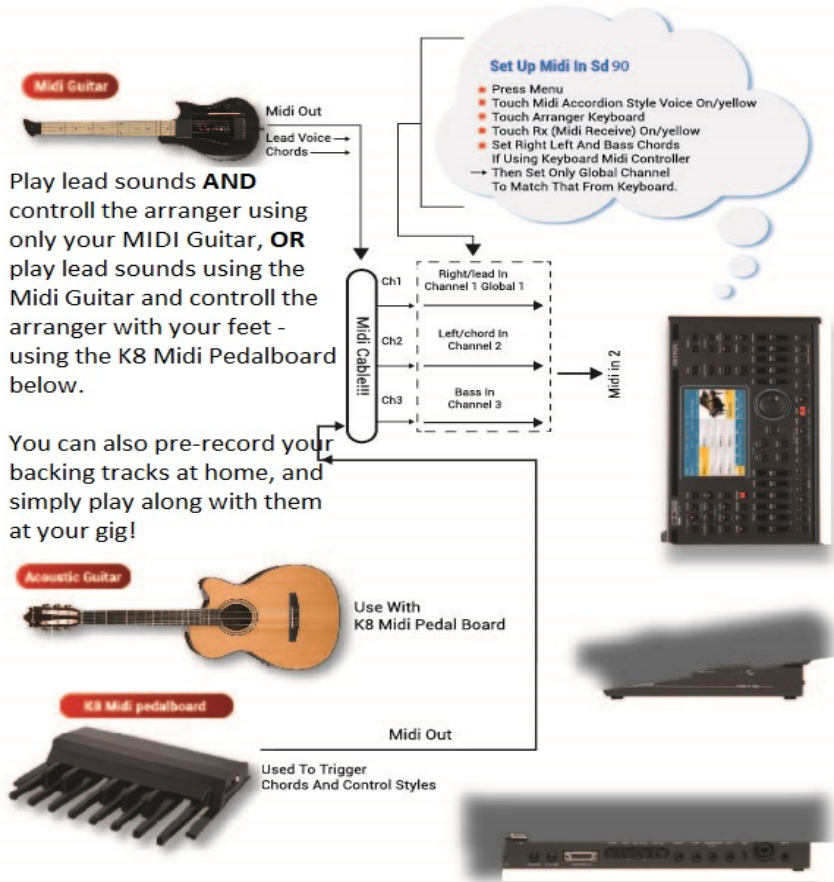
USING KETRON MODULES WITH GUITARS



Midi Guitars have been around for ages and guitar players have found ways to catch up with their keyboard counterparts in being able to have fun playing different sounds using drum machines and synthesizers. Many have however resorted to using Midifiles and backing tracks (making folks think they are ‘DJ’s now’ because it has been a challenge for them to have a device which they can perform with and which follows them as though they were playing with a live band ... until now.

The KETRON SD90 (SD9 & SD60), SD40, Midjay Pro & AUDYA 4 and even the older units such as the SD3, XD3, X4 and MS40 (*referred to as the **module** from here on*) can be set up to be controlled by Guitar players in various ways, such that the backing tracks FOLLOW YOU, meaning you don’t have to follow a midifile or drum machine or karaoke just to sound good and full. You can choose to use your feet to change the chords (*using bass pedals such as the KETRON K8 Pedal board*) or simply set up the machine to recognize the chords you play (*PIANIST AND GUITARIST mode described on page 68 of the SD9/SD60/SD90 manual*) which allows you to simply play and focus on your performance – not your feet. Either way, you are now in full control of the LIVE backing tracks meaning you can for example keep playing a tune, should you reach the end and the audience decide to start dancing, or quickly go into another tune and keep your audience on the dance floor. You can also play lead sounds from the KETRON simultaneously (*such as piano, sax ... etc*). For this option, you will need to have a Midi Guitar such as the CASIO MG-510, or ROLAND GK-series Midi Guitar converter or an **Audio to Midi interface** attached to your guitar which translates the audio signal to midi. This will allow you to play your guitar but at the touch of a button, instantly start playing a flute, organ, sax or even piano!

Midi set up for various controllers



Play lead sounds **AND** control the arranger using only your MIDI Guitar, **OR** play lead sounds using the Midi Guitar and control the arranger with your feet - using the K8 Midi Pedalboard below.

You can also pre-record your backing tracks at home, and simply play along with them at your gig!

- **GUITAR SET UP 1:- PLAYING WITH BASS PEDALS (K8 Midi Pedal board):**



For the sake of this write up, we will stick with the newer KETRON products, however, feel free to contact us (267-323-5005) if you want instructions to accomplish these same results on older KETRON modules.

When using the optional KETRON midi Bass pedals, you can use your feet to change the chords of the arranger while playing your Guitar as you normally do now. This method is preferred for musicians playing music genres like Country, Rock n Roll, Pop, Ballads ... which do not have complex chord progressions nor chords. With this set up, you can use either an electric guitar or an acoustic guitar. As you play, simply press any of the notes on the bass pedal to generate a chord which the unit will play to back up whatever you are playing. For minor or 7th chords, you can choose to either use both feet to press both notes (*e.g. C and Bb to play a C7th chord*) or you can program the optional footswitch (FS6 or FS13) or the optional hand switch (HS9) such that when you press a switch/button on either of these devices and press a note on the midi pedal board, that note played will be a 7th, minor, minor 7th ...etc – based on the chord tonality/type selected.

[PROS:- More accurate control of chords for simple songs. Hands are totally free to solo on guitar and play as you wish. This method can be used by any solo artist (Harmonica player, vocalists, trumpet player ... etc). **CONS:-** Limited chord tonalities. This requires more concentration as you multi-task with feet and hands which sometimes leads to less focus on your audience/performance. Since you do not have midi, you cannot play the lead voices such as piano, sax with this method. Also requires you to sit or get a high stool as you're on one foot most of the time, kicking pedals.]

- **SET UP & TUNE UP TO USE BASS PEDALS:**

You have to make sure that when setting up your unit to use bass pedals, both the pedals and the KETRON unit are on the 'same page', meaning communicating together on the same channel. The module can receive and transmit midi data on up to 16 channels and so too can the midi bass pedal. If the bass pedal is set to transmit on midi channel 2 (*which is the default channel whenever it is turned on*), this means that you will have to set the module to RECEIVE on midi channel 2 ... so both have to be on the same channel. To set the midi channel on the module, please proceed as follows:-

- Press the MENU button on the SD90/SD40/Midjay Pro to display the menu screen.



- Touch the **MIDI** icon on the screen to display the MIDI page.



- If not already selected, touch **STANDARD** (it will be yellow).
- Touch **ARRANGER KEYBOARD** at the bottom of the screen to display the current Arranger keyboard set up.



- The 4 icons on the bottom of the screen (**Chan, Shift, Status & Filter**) are the various modes whose midi channels can be set up for various functions as described above on page 160 – MIDI). Touch **Chan** to get to the channel page and touch **RX** to access the Midi RECEIVE channel settings as shown above.
- Touch the **LEFT** box and turn the data wheel to set this to channel **2** to match the midi channel from the Midi Pedal board. (**Note:-** By pressing the MIDI button on the Midi Pedal board repeatedly [once to go to channel 3, twice to go to channel 4, thrice to go to channel 5 ... channel 16), you can also program the midi pedal board to transmit on a channel other than the default of channel 2 when powered on – just make sure the numbers match!].

have to think ahead so as to be prepared to change chords exactly where chord changes are required. Solo is limited to 2 or 1 string since 3 will prompt the unit to change chords as it tries to keep up with your 'noisy solo'!].

- **SET UP & TUNE UP TO USE ONLY MIDI GUITAR:**

There are 2 procedures needed to allow you to control the chords and play the module's lead voices – set up the MIDI channels and set up the module for PIANIST & GUITARIST mode.

- **1. MIDI CHANNEL SETUP:** You have to make sure that when setting up your module, the midi channels match up with the midi channel your Midi Guitar is transmitting on (*most default to channel 1*). Assuming the Midi Guitar is set up correctly and transmitting ALL STRINGS on Midi channel 1, proceed as follows to set up the KETRON module to receive on channel 1:
- Press the **MENU** button on the SD90/SD40/Midjay Pro to display the menu screen.



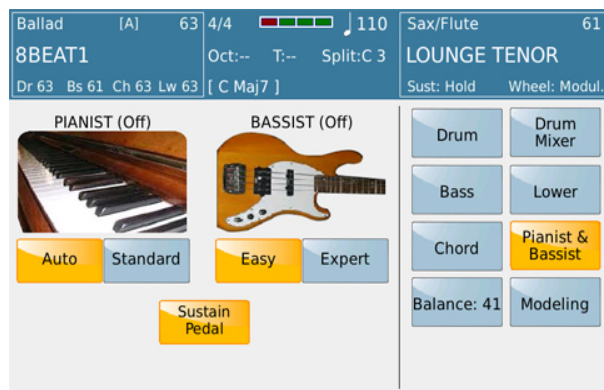
- Touch the **MIDI** icon on the screen to display the MIDI page.



- If not already selected, touch **STANDARD** (*it will be yellow*).
- Touch **ARRANGER KEYBOARD** at the bottom of the screen to display the current Arranger keyboard set up.



- The 4 icons on the bottom of the screen (**Chan, Shift, Status & Filter**) are the various modes whose midi channels can be set up for various functions as described above on page 160 – MIDI). Touch **Chan** to get to the channel page and touch **Rx** to access the Midi RECEIVE channel settings as shown above.
- Touch the **GLOBAL** box and turn the data wheel to set this to channel **1** to match the midi channel from the Midi Guitar. (**Note:-** When you do this, test by playing each string on your Guitar. You should hear whatever voice is currently selected on the Module e.g. Piano or sax coming through your system. If only a few strings work, this means you have to go back to your Midi Guitar setup, tune and set the sensitivity once more on the strings that are not heard as they are NOT transmitting to the KETRON arranger!).
- Press the **SAVE** button on the panel to save this current midi setup and ok the confirmation message displayed to save settings to the current **STANDARD** midi setup.
- **2. CHORD DETECTION SETUP:** Next, proceed to set up the correct chord detection mode on the module so that when you play 3 or more notes, this chord is recognized and played by the module.
 - Press the **PIANNIST** button on the panel (SD90/SD60/SD9) or on the screen, touch **VIEW – PIANNIST & BASSIST** (SD40/Midjay Pro) to access the PIANNIST page as shown below.



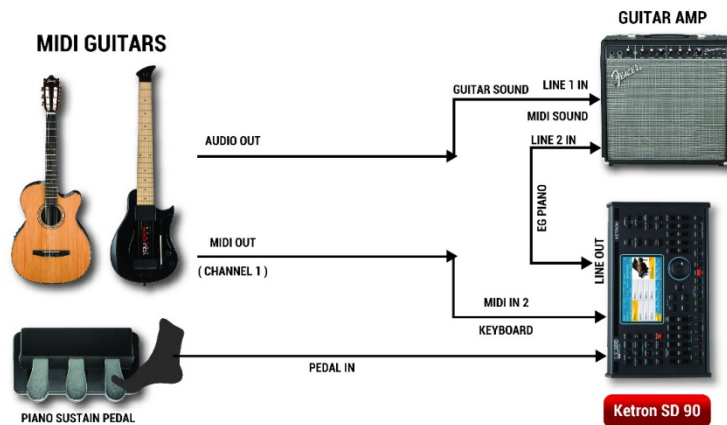
(Midjay Pro does NOT have Sustain Pedal option!)

- Here you can set the module in GUITAR mode, **PIANNIST (ON)** ... in other words allowing chord detection when you play a full chord or pluck 3 or more chords. Also, whatever voice you select can now be played as a solo instrument.
- The two modes, Bassist/Pianist, may only be used one at a time. They will now be described in more detail:

PIANIST (& GUITARIST MODE)

- **Auto:** Most favored! In this mode, simply play 3 or more notes on the keyboard/guitar so that the chord is recognized and once this happens, you can then play the melody or solo with one, or at the most two notes, without changing the chords of the Arranger. For a guitar player, this method eliminates the use of bass pedals as you can now play freely. It is also preferred because you only change chords when you play 3 notes or more, giving you more control over the module.
- **Standard:** In this mode, the module recognizes chords all the time – so even if you play just a single note, that note will be interpreted as a root chord and thus the module will keep changing chords as you play any note. This is not the best setting for modern music (*whose chord change usually occur every 4 or 8 or 16 or ... measures, and not every bar/note*)!
- **Sustain Pedal (feature not in Midjay Pro):** When this parameter is enabled (ON), in conjunction with the **STANDARD** mode above turned on, the Sustain Pedal control on Pianist is enabled once plugged into the module. For Guitarist, turn this on when you want to use a sustain pedal to freeze the chord recognition when playing a solo or lead line and don't want the arranger to 'read' the notes you are playing – in other words as you play, you press the pedal to 'lock the chord in' so you solo on the instrument. Release the pedal and strike a chord to have the arranger read and play the new next chord.

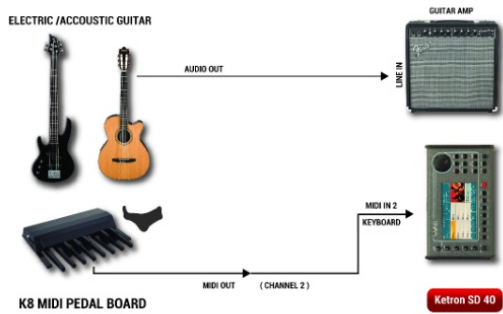
GUITAR SET UP 3



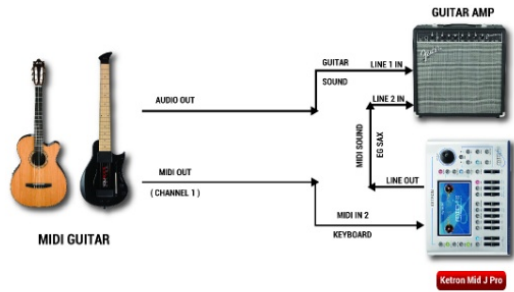
- In order to avoid repeating all this whenever the unit is turned off, then back on, you need to save these settings as Custom Start up (press **PLAYER 1** button [**PLAYER** for SD40], press the **SAVE** button and touch **CUSTOM START UP!**)

Again as a reminder ... this applies to all current KETRON Modules and Keyboards ... including ...

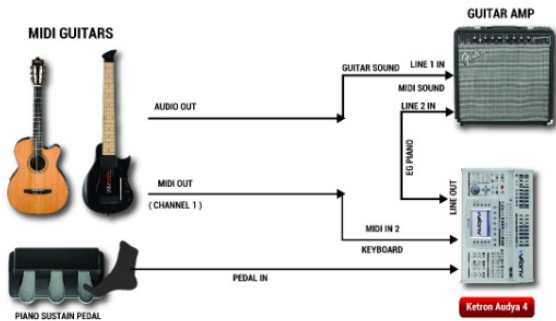
GUITAR SET UP 1



GUITAR SET UP 2



GUITAR SET UP 3



GUITAR EFFECTS AND STOMP BOXES (ALL IN YOUR SD90)

You can now leave your effects and stop boxes at home as we have you covered in the SD90! Yes ... simply plug your guitar straight into the SD90 and edit your effects to your liking.



GUITAR / MICROPHONE #2 INPUT

You can connect either a 2nd Microphone or a Guitar/Instrument into the INPUT jack at the back of the SD90/SD40 PRO as shown –



Fig. 173. LINE IN/GUITAR – Connection

Make sure the **INPUT volume slider** on the top panel is all the way down and the **INPUT switch** on the panel is **OFF** BEFORE making any connections to the instrument to prevent any possible damages to the internal circuit or your PA system!!

Once connected to the back of the SD90/SD40 PRO, press the **INPUT** button on the SD90/SD40 PRO's front panel (*right side*) to turn on or off this signal and adjust it's volume to appropriate levels using the **INPUT** volume slider directly above the INPUT button.

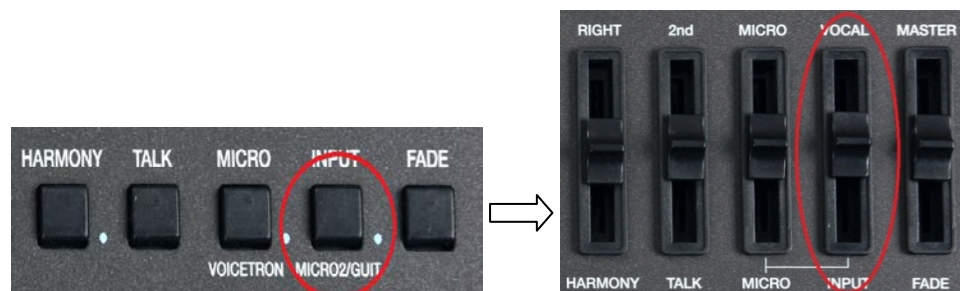


Fig. 174. LINE IN/GUITAR – Controls

The default setting set up for this input to be used is for a microphone and so the gain is internally set high by the settings. If using a Guitar or any other musical instrument, you will have to let the SD9 PRO know that the signal coming in is not from a microphone but rather a LINE musical instrument. To do this, please press and hold down the **MICRO2/GUITAR (INPUT)** button for about 2 seconds to display the following page-




Fig. 175. LINE IN/GUITAR – Settings

The screen displayed above shows 2 columns – the left side is that of the microphone and the right side is that of the Guitar. Only one of these can be used at a time for the MIC2/LINE IN jack.

- If a **microphone** is what has been connected into the MIC2 jack at the back of the SD90/40 PRO, touch the ON button on the left side close to the **Micro Setup** icon (*the Guitar Setup will be turned off if it was on*).
- If a **Guitar** (or a musical instrument) is what has been connected to the MIC2 jack at back of the SD90/40 PRO, touch the ON button on the right side close to the Guitar Setup icon (*the Micro Setup will be turned off if it was on*).
- Adjusting the **MICRO2** settings is identically to adjusting the **MICRO1** settings already discussed (under section **6.A Microphone Page 118 of the complete manual**), so let's focus on the **GUITAR** setup. Touch **EDIT** to access the Guitar stomp boxes/effects units which will be displayed as such



Fig. 176a. LINE IN/GUITAR – EFFECTS

- Each of the stomp boxes displayed above represents different guitar effects used by Guitar players. Once you have plugged in your guitar into the Line input on the back of the SD90/40 PRO, simply touch the effect box's knob you wish to turn on or off. A red light denotes that the effect has been turned on (*in the example above, the DELAY effect has been turned on*).
 - To change the amount of delay, touch e.g. the delay knob (*it turns red showing it is in edit mode*) and turn it with your finger or turn the data value wheel  as shown in the screen shot above.
 - The current effect (*in this case Delay effect*) is displayed in the box below the knob. To select a different Delay effect (*as an example*), touch the box with the current effect displayed to display a list with many other effects to select from –

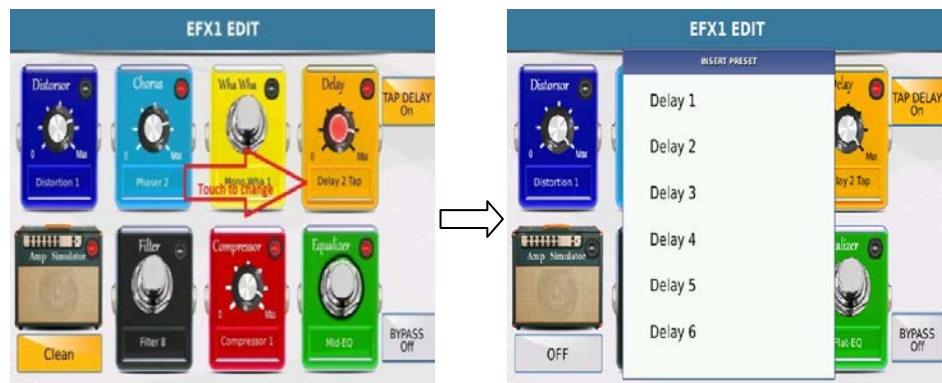


Fig. 176b. LINE IN/GUITAR – EFFECTS

- Touch the new effect you want to now use.
 - **NB:-** This process of increasing and decreasing the amount of effect used and changing the effect all together is the same for all the effects pedals (*stomp boxes*) show in this window, with the exception of the Amp Simulator. You can only turn it on or off.
- **BUILT IN GUITAR TUNER:-**
 - The SD90/40 Pro also has a built in Guitar tuner believe it or not. This can be used to quickly tune your band member's guitar or similar instrument on stage.
 - Touch the “**GUITAR TUNER**” icon or tuner image on the screen as shown in Fig. 177 below.

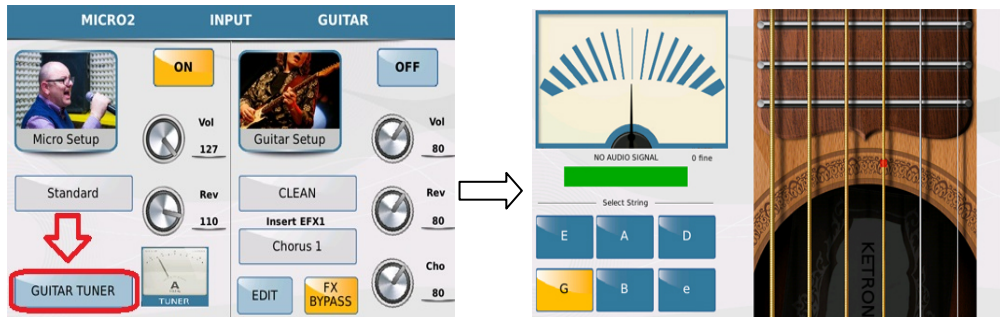


Fig. 177. LINE IN/GUITAR – TUNER

- Now one by one, gently pluck the strings on your guitar and use the tuner to tune it. Once you're in tune, the tuning bar will display "Tuning ok" along with a green bar below the tuner. If the SD90/40 Pro doesn't 'hear' a signal, it will display the message "No Audio signal", so you need to check the connection between your Guitar and the SD90/40 Pro Mic 2/Line input. You can also simply touch the relevant notes on the virtual guitar so your guitar player can hear and tune his guitar right there using the SD90/40 Pro.

Enjoy your KETRON SD9/SD60/SD90 Pro keyboard and a special thank you from the folks at KETRON USA for your continuous support of KETRON products.

Designed, compiled and written by AJAM Inc. USA