

PRODUCT MANUAL

MINI MIXER



Connecting the Mini Mixer

Make sure your amplification system is shut off or turned down. Connect the included gray Y cable with the connector that has two cables attached into the 4-pin input connector of the Mini Mixer.

Plug the two other ends into the 4-pin connectors of your collecting rails. The latter are both the same, it does not matter which one goes into naturals/accidentals.

Plug the power supply plug into the 12-volt DC power input of the Mini Mixer and secure the cable with the Velcro tab on Velcro the back of the Mini Mixer.

Connect either an XLR cable or a 1/4" cable to an amplifier or PA system. You can use both outputs at the same time.

Adjust the hangers of your Mini Mixer according to the width of your instrument with the Velcro and

hang the unit onto the left side-rail of your instrument.

Once in place, with all the connections made, make sure the volume on the mixer is turned down all the way. Switch on your amp system first and then switch on the Mini Mixer. Then turn up the volume on the Mini Mixer and the volume control on your amplification system.

Adjusting the Mini Mixer controls

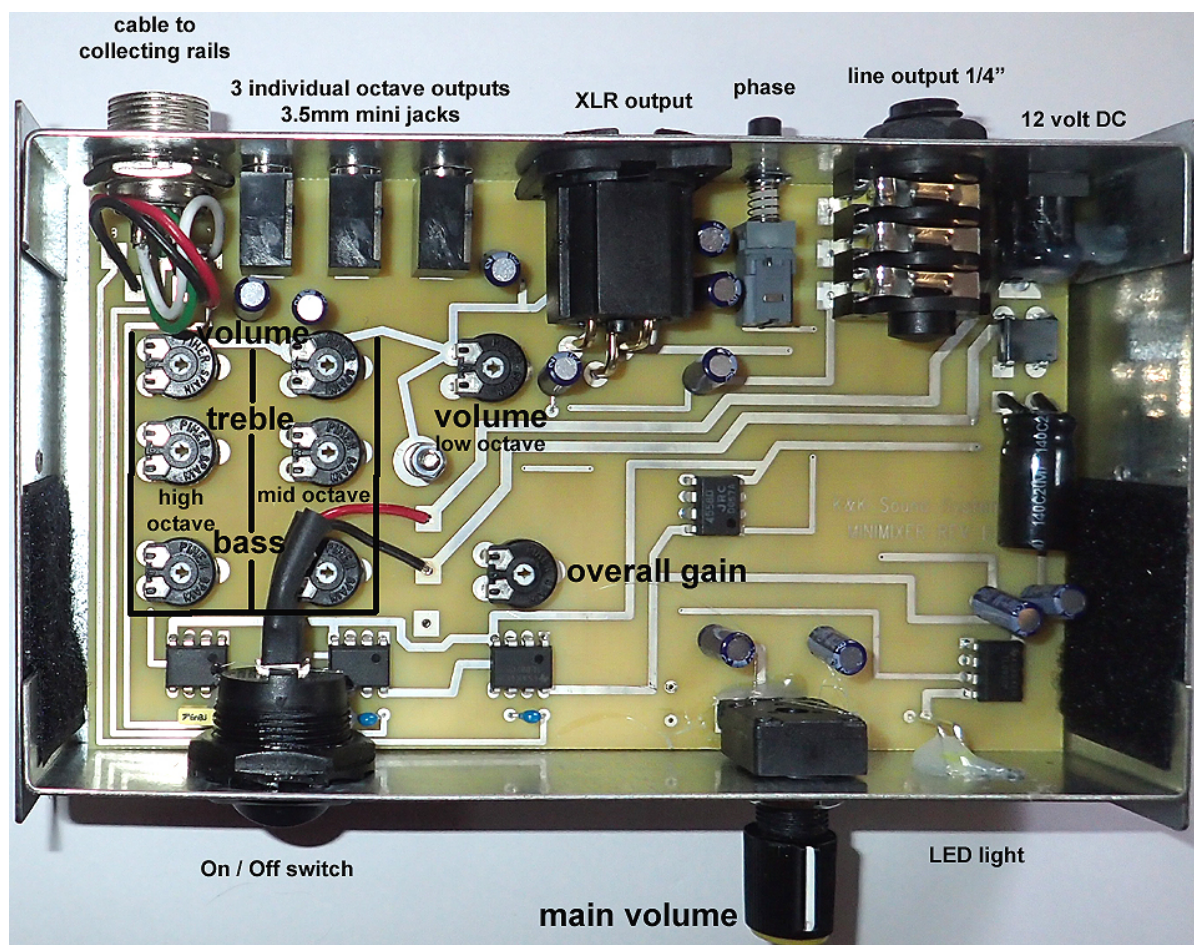
The Mini Mixer functions like a 3-channel mixing board. Inside the unit there are trimpots for volume and EQ controls for each of the 3 channels individually. They have been factory-pre-set, but you can adjust them with a precision screwdriver any time you like.

The low octave range on a standard 3-octave vibe (F-F) has a volume control only. The middle range (F#-E) and high range (F-F) features specially tailored bass- and treble EQ's.

Note: These ranges will be different for marimba/xylophone or bigger vibraphones. You'll use bigger low- and high octave groups here.

The controls inside the Mini Mixer allow you to dial in a clean and balanced sound across the entire keyboard, eliminating the unwanted mallet impact noise ("thud") in the higher registers by cutting the bass EQ and progressively adding some treble on the medium and especially the high tone bars.

There is one additional trimpot for the gain adjustment of the 1/4" line output (line output gain, see picture below). It is factory preset to about 50%. That means you can adjust the line output louder or softer in relation to the XLR output (PA output), depending on the specific amplifier you are using.



Outputs of the Mini Mixer

There are 3 output formats on your Mini Mixer:

- 1 Unbalanced 1/4" line output.
- 1 Balanced XLR output.
- 3 Unbalanced 1/8" outputs, one for each octave range

Naturally you may use the 1/4" output when you connect to a 1/4" input on your amplifier or effect unit. The balanced XLR output will allow you to use very long cables (100+ feet) without signal loss. Plus it is the preferred format on PA systems.

The 3 individual octave outputs require special adapter cables (1/8" plug to 1/4" plug, not supplied) and are great for studio work. For example, you can panorama the keyboard (low octave to left, mid octave center, high octave to right) or you can apply different effects to each octave. These outputs are post the EQ in the Mini Mixer and not effected by the main volume knob.

You can use all 3 outputs options simultaneously.

How the Phase Switch Works

Phase determines at what point in time a sound wave has its peak or trough.



This picture shows 2 (basically identical) sine-waves, but the wave on the right (2) is inverted in respect to the wave on the left (1). Interestingly, if these two waves were played back simultaneously from the same speaker-source with the same volume, they would completely cancel each other out and no sound would be heard. There would be silence. This phenomenon is called phase-cancellation.

Your vibraphone or marimba, like any acoustic instrument, acoustically projects sound waves in a certain phase when it is played unplugged. The phase that is projected from the amplified speaker source needs to be "in phase" with the acoustic instrument's own sound-waves or the result will not be optimal.

Out-of-phase vibraphone sound reproduction may also suffer, to a relatively small degree but still

noticeable, from phase cancellations. Amplification systems, effect units, or any electronic audio device may or may not invert the phase in of the signal coming in. The manufacturers unfortunately do not specify.

This phase switch allows for instant correction of a phase cancellation problem. Gladly the vibraphone is not particularly prone to severe out of phase problems, but you will still notice a slightly fuller, warmer tone in the correct phase setting. Toggling the phase switch back and forth while playing and carefully listening, you will find that in one direction the sound is richer than in the other. Keep in mind that it may be different with different amplification systems and even with different distances to your monitor speaker source.

Technical Data

Input: 4 pin barrel connector, high ohmic

Line Output: 1/4" – 100 Ohm unbalanced

XLR Output: 100 Ohm balanced

EQ: Mid octave – high pass bass @ 150hz +/-15db –

low pass treble @ 7500Hz +/-15db

EQ: High octave – high pass bass @ 250hz +/-15db –

low pass treble @ 8500Hz +/-15db

Frequency response 50 - 20000 Hz

Power Supply

In order to get the best performance please use a low ripple voltage 12-volt DC, 0.5-Ampere model.

The DC plug must be center plus.