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Introduction

This product complies with European CE requirements.



Thank you for your purchase of the Midiman miXim 10 audio mixer. Midiman may not be well known as a manufacturer of line mixers. However, we have designed and manufactured over 4 different models including MiniMixer, FineLine, MicroMixer 18 and MultiMixer 6. All of these mixers have two things in common: 1.) they are exceedingly quiet — quieter than 99% of the units on the market; and 2.) they are uniquely configured to meet the specific needs of the MIDI and multimedia musician.

The miXim 10, once again fits these two criteria. First, you will not find another mixer, at any price, that is as quiet as the miXim 10. This is because the miXim 10's innovative design incorporates a variable gain structure that maximizes headroom. The unit's simple and efficient design and ultra compact layout eliminates any measurable noise. The unit also has a higher than usual voltage "rail" across its internal op amps. This means that you get more punch and much more dynamic audio output.

Secondly, the miXim 10 feature set (when coupled with its ultra quiet performance) functions beautifully as a front end to a digital audio system, as an all purpose compact studio mixer or as a high quality, versatile, live performance mixer.

The following summarizes some of the typical applications for which miXim 10 is ideal:

"Front End" to a Digital Audio System

miXim 10 is ultra quiet which makes it the perfect mixer for the front end of a digital recording set up. Because it's so quiet it won't add any noise to your digital recording. Also, because miXim 10 has such a variety of inputs and controls including mic preamps, 3 band EQ, sends and returns (for the addition of exter-

nal effects) and more, it will more than meet any of your digital audio input and mixing needs.

Live Band, Duos and Trios

miXim 10 takes up very little space. With its built-in mic preamps and variety of controls, it can mix all instruments along with microphones and drive a power amplifier.

Home Studios

miXim 10 can mix all the modules in a typical electronic instrument set-up, and it provides stereo mixing of acoustic instruments and vocals.

Submixer for Larger Consoles

When many keyboards and modules need to be mixed and expensive studio console inputs are at a premium, miXim 10 is the answer for combining several of the instruments into a single stereo mix which is then patched into the main mixing board.

If you need additional tech support, have comments, or suggestions about miXim 10 or any MIDIMAN product, we invite you to contact us directly at any one of the following numbers:

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Front & Rear Panels - Fig. 1

9 VAC

Line Gain
Phantom
Line Gain
Phantom

High Off
Norm On
2
1
Channel

MIC 1 MIC 2

IN 1 IN 2

1 2 3 4

HIGH MID LOW SEND PAN GAIN

5/6 7/8

SEND BAL BAL GAIN

STEREO RTN

LEFT TAPE IN RIGHT TAPE IN

LEFT TAPE OUT RIGHT TAPE OUT

3 mon 5L mon 7L mon 9L mon OUT L OUT R

4 mon 6R str 8R str 10R str STR RET SEND

POWER

MIXIM¹⁰™

10 CHANNEL MIXER

midiman

CLIP +8 0 -20

PHONES

MAIN

Overview

While reading the following description of how miXim 10 works it may be helpful to refer to the preceding Front and Rear Panels - Figure 1, or the Block Diagram - Figure 3 located in the back of this manual.

Channel Controls and Inputs

Channels 1 to 4: The miXim 10 has 4 mono inputs (1 through 4) with gain control, pan control, a mono send and 3 stage EQ.

Channels 1 and 2: Channels 1 and 2 have both XLR and 1/4" inputs. If a plug is inserted into the 1/4" input of Channels 1 and 2 the XLR is switched out. These inputs can be switched between high gain, for mics, or low gain, for line level using the corresponding Line Gain dip switches on the back of the unit. Since the 1/4" inputs on channel 1 and 2 are in parallel with the balanced XLR inputs they can also function as high or low gain inputs. These 1/4" inputs are somewhat special in that they can be used as unbalanced inputs by using a mono plug, or as balanced inputs by using a stereo plug.

IMPORTANT: Because channel 1 and 2 are high gain inputs, we suggest that if you are not using either of these channels make sure the unused channel's gain control is turned all the way down.

XLR Phantom Power: If you are using the XLR inputs on channels 1 and 2 and need to switch phantom power on, you may do so by using the Phantom power dip switches on the back of the unit.

EQ Controls: The 3 band EQ controls on Channels 1 through 4 offer 15 dB of boost when all the way right and -15 dB of cut when all the way left. When centered these controls have no effect. The Low, Mid and High controls act as follows: Low provides shelving below 80 hz; Mid provides peaking centered at 2.5 Khz; and High provides shelving at 12 Khz.

Channels 5/6 and 7/8: 5/6 and 7/8 are stereo channels. This means that the Gain controls on these channels attenuate both of the respective inputs. When you turn the Balance controls on these channels all the way to the left you will only get the left input (5 or 7) going to the left main output. When you turn the Balance controls on these channels all the way to the right you will only get the right input (6 or 8) going to the right main output. When these Balance controls are centered you will get left and right inputs going to both the left and right outputs. The Send controls on these stereo channels send a mono mix of the stereo input to the Send out and are unaffected by the Balance control position.

1/4" Inputs on Channels 5 to 10: These inputs are quite unique. There are 4 different ways you may use these inputs. If you put a stereo plug into input 6, 8 or 10 you will get a stereo signal going to both the left and right main outputs. If you put mono jacks in both the left (5, 7 or 9) and right (6, 8 or 10) inputs you will get the left signal going to the left main output and the right signal going to the right main output. If you put only a mono jack in any of these left inputs (5, 7 or 9) then this signal will go mono to both the left and right main outputs. If you put a mono jack in any of these right inputs (6, 8 or 10) this signal will go mono to only the right main output.

Channels 9 and 10: Channel 1 through 8 inputs provide up to 20 dB of gain. The remaining two channels (9 and 10)) are unity gain.

Tape In (RCAs): The Tape Left and Right Inputs are summed into Channel 7/8 and are thus subject to the 7/8 Gain, Balance and Send Controls.

Send Controls: Channels 1 through 8 on the miXim 10 have individual Send controls. These Send controls provide up to 6 dB of post-fader gain over the channel's own gain stage. The combined Send signals are sent out the Send Out at the top right of the unit. Turning a send pot all the way down will prevent any of that signal from appearing at the send output, while turning it all the way up will send it to the send output with 6 dB of gain.

Stereo Return

miXim 10 has a stereo Return. This return is designed to be used with a tip/ring/sleeve jack. The tip goes left, the ring goes right and the sleeve is common (ground) to both channels. The Stereo Return level is controlled by the miXim 10's "Stereo Rtn" pot. If you are not using the Return, it can be used as additional unity gain stereo input.

Main Level Pot and LEDs

The Main Level pot simultaneously controls the volume of both the left and right outputs. The last stage Main amplifier provides up to 20 dB of additional gain. Since clipping doesn't occur until approximately +20 dB and the noise floor is at -95 dB, this gives miXim 10 a Signal-to-Noise (S/N) ratio of well over 100 dB. Because of this, you can run the outputs at the +8 on the Main Level LED Meters (or slightly above) and still have digital quality signal.

Tape Out (RCAs)

The Tape Left and Right Outs are duplicates of the Main Left and Right Outs.

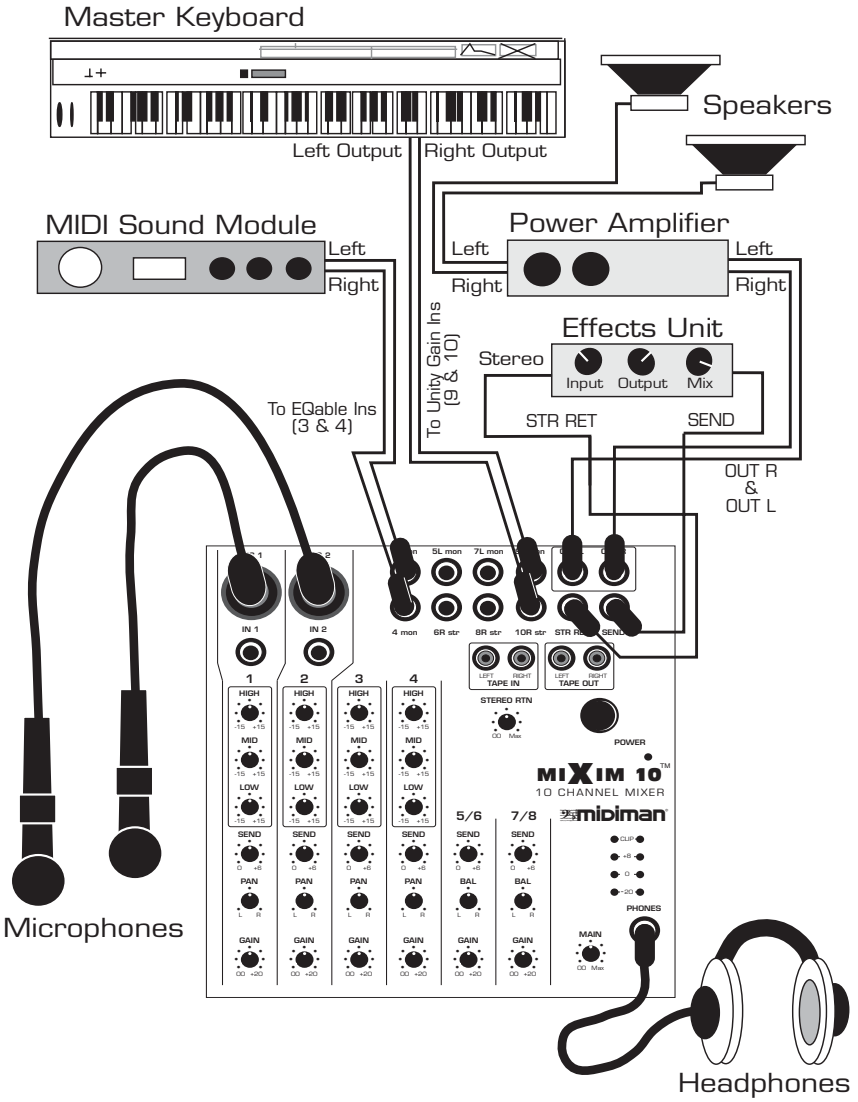
Headphone Out

The left and right output signals are also routed to a separate stereo headphone amplifier. The volume of the headphone output is controlled by the Main volume pot.

Power Indicator Switch

miXim 10 runs on 9 to 12 volts, AC. Whenever miXim 10 is plugged in and the power switch is pushed in, the Power LED will light. If the Power LED goes off check to make sure your wall supply is properly plugged in and that the power switch is pressed in.

Typical Set-Up - Fig. 2



Setting Up (see "Typical Set-Up" diagram)

When setting up, you should first decide if you are going to need mic inputs. If you are going to be using mics you need to set the Line Gain dip switch of the channel you will be using (1 or 2) to High. If you are going to use one of these channels as a mic in and the other as a line level in make sure the Line Gain dip switches on the back of the unit are set accordingly.

IMPORTANT: Because channel 1 and 2 are high gain inputs, we suggest that if you are not using either of these channels make sure the unused channel's gain control is turned all the way down.

Make sure that the line level instruments that are connected to inputs 1 through 8 are set to their maximum volume, and control the mix level from the miXim 10 channel gain pots. Levels of instruments connected to the unity gain 9 and 10 inputs will have to be controlled from the individual instruments. If you have a MIDI volume controllable instrument, you can plug its stereo output into the 9 and 10 inputs and make level adjustments with your sequencer or MIDI mixing controller.

You will also need to decide how to assign effects and sends. If you are using miXim 10 for live performance, you may want to use the send and the stereo return to add stereo effects to your mix. If you are not using the send to add effects you may use it as a mono monitor mix. You may also use the headphone out as a monitor mix. However, it is a stereo output and it doesn't have an independent volume control.

Setting Up the Outputs

If you are using the miXim 10 in live performance, you will probably want to connect the Left and Right Outs to the input(s) of a power amplifier. If you are using miXim 10 in a studio application, you will probably plug one output (for mono) or both outputs (for stereo) into one input (for mono) or two inputs (for stereo) on your mixing board.

The output levels of miXim 10 are controlled by the stereo Main level pot. When set to 9 o'clock, miXim 10 has unity gain. This is the best setting for going into a mixing board. If you are going into a power amplifier, this pot will act as a convenient volume control.

Headphones

A headphone amplifier has been built into the miXim 10 to provide easy monitoring and to allow you to use it quietly at night (without waking your loved ones or the landlord!). The headphone jack accurately reflects the signal coming from the Master Outs. The headphone volume can be adjusted from the Main level pot.

Applications and Hints

Gain Settings

The gain provided from turning up the Left and Right Level pots can help drive a power amplifier or boost a signal from -10 to +4 dB signal levels. For unity gain these pots should be set to about 9 o'clock.

For greatest S/N ratio, Master Levels should be run as close to clipping as possible. When mixing a number of keyboards or modules, the level of the instrument with the lowest output should be set first by adjusting its gain to just below clipping. Gain controls for the other channels can then be adjusted to achieve the desired mix.

Don't be afraid of the yellow Master Level LEDs (+8 dB). For the best results, the yellow LEDs should be lit most of the time.

Using the Send and Return for Effects

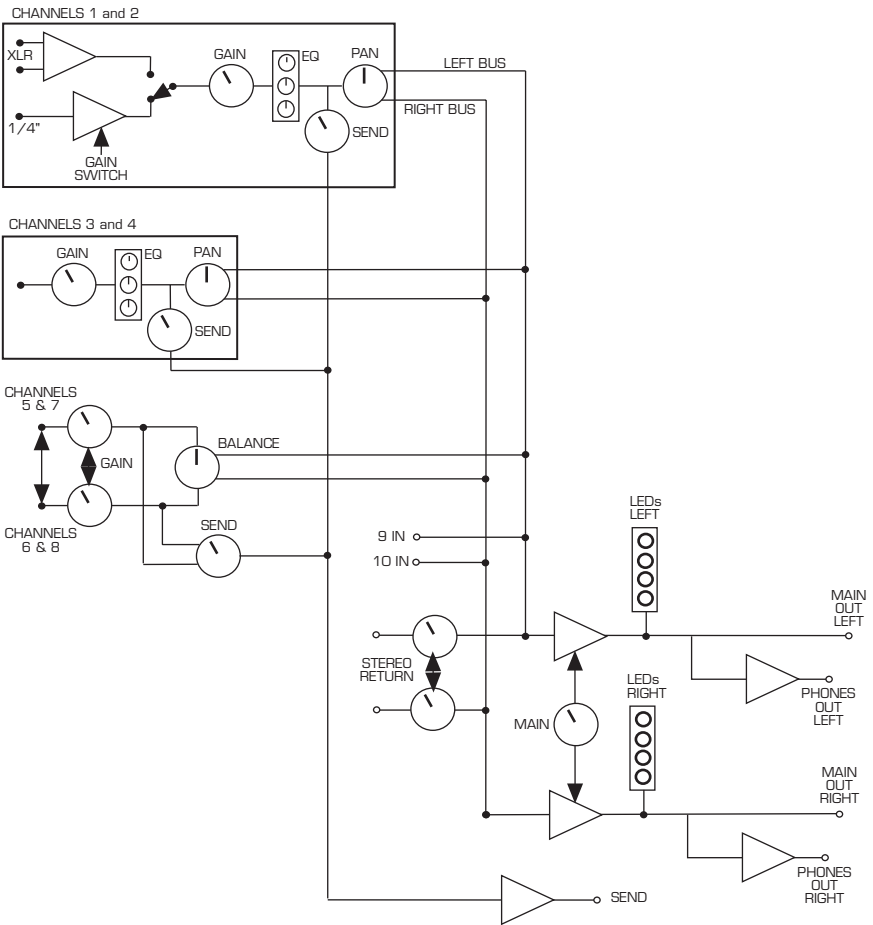
Channels 1 through 8 of the miXim 10 have a Send control. This send can be used for several things, the most common of which is to add effects such as reverb or delay to an instrument that has no built-in effects.

The miXim 10 also has a stereo effects return. The stereo return

enables you to incorporate stereo effects in your mix. If you need more than one stereo return, use two of the regular channel inputs. This technique also enables you to adjust the placement of the effect in the stereo field by adjusting the pan pots on the channels to which you have routed the effects unit.

For the best S/N ratio, set the send level on the miXim 10 so that the effects unit is getting the “hottest” possible signal without overloading. Set the effects unit to output wet (processed) signal only and use the miXim 10's return level to control the mix of processed and non-processed signal.

Block Diagram - Fig. 3



Limited Lifetime Warranty

MIDIMAN warrants that this product is free of defects in materials and workmanship under normal use so long as the product is owned by the original purchaser and that purchaser has registered his/her ownership of the product by sending in the completed warranty card.

In the event that MIDIMAN receives written notice of defects in materials or workmanship from such an original purchaser, MIDIMAN will either replace the product, repair the product, or refund the purchase price at its option. In the event any repair is required, shipment to and from MIDIMAN and a nominal handling charge shall be born by the purchaser. In the event that repair is required, a Return Authorization number must be obtained from MIDIMAN. After this number is obtained, the unit should be shipped back to MIDIMAN in a protective package with a description of the problem and the Return Authorization clearly written on the package.

In the event that MIDIMAN determines that the product requires repair because of user misuse or regular wear, it will assess a fair repair or replacement fee. The customer will have the option to pay this fee and have the unit repaired and returned, or not pay this fee and have the unit returned unrepared.

The remedy for breach of this limited warranty shall not include any other damages. MIDIMAN will not be liable for consequential, special, indirect, or similar damages or claims including loss of profit or any other commercial, damage, even if its agents have been advised of the possibility of such damages, and in no event will MIDIMAN's liability for any damages to the purchaser or any other person exceed the price paid for the product, regardless of any form of the claim.

MIDIMAN specifically disclaims all other warranties, expressed or implied. Specifically, MIDIMAN makes no warranty that the product is fit for any particular purpose.

This warranty shall be construed, interpreted and governed by the laws of the state of California. If any provision of this warranty is found void, invalid or unenforceable, it will not affect the validity of the balance of the warranty, which shall remain valid and enforceable according to its terms. In the event any remedy hereunder is determined to have failed of its essential purpose, all limitations of liability and exclusion of damages set forth herein shall remain in full force and effect.