MXL®

UR-1

PATENT PENDING

USB Ribbon Microphone
User Manual

U R-1 User Manual

Congratulations on your purchase of the MXL UR-1. The MXL UR-1 USB Ribbon microphone combines the classic tonality of a vintage ribbon microphone with all the convenience and simplicity of USB technology. It features a high quality ribbon motor and an ultra low noise preamplifier with Delta Sigma analog to digital converters to deliver remarkable sound quality. Ribbon microphones are renowned for their natural unhyped sound. Our world class engineers in California have successfully created a perfect blend of these two very different technologies to deliver a truly unique microphone. With a zero latency headphone socket for realtime monitoring, integrated isolation mount, and stunning good looks, the MXL UR-1 is perfect for recording instruments and vocals, for podcasting, and for many other applications too. Fully Mac and PC compatible, with no special drivers required.

While we encourage you to review this entire manual, there are a few key points about handling your MXL UR-1 that we want you to familiarize yourself with right from the start.

The MXL UR-1 is a professional quality, USB ribbon microphone designed specifically for recording. It has a "figure-eight" pick up pattern, meaning that the microphone picks up from both the front and the rear of the microphone with the sides offering excellent rejection. Unlike live microphones or dynamic microphones, this microphone requires careful handling. By following a few basic handling procedures, you can expect a long and happy relationship with your new MXL microphone.

ALWAYS: Handle the microphone carefully, avoiding sudden shocks such as dropping or bumping the microphone into other objects.

ALWAYS: Maintain a distance of approximately 4 – 6 inches when speaking or singing into the microphone. You are encouraged to use a pop filter for added protection of the sensitive ribbon and to shield the instrument from saliva and sudden bursts of air.

NEVER: Tap the microphone to check if it is working. The red LED behind the microphone's protective grill will tell you it's functioning.

NEVER: Blow into the microphone to check it's working. The red LED behind the microphones protective grill will tell you it's functioning.

A little background information:

MXL Ribbon microphones use an ultra thin corrugated aluminum ribbon suspended between two powerful magnets. The output of ribbon microphones is very small and needs substantial amplification to produce usable results. Your MXL UR-1 has all of the amplification and analog to digital converters required to give you outstanding recording quality built-in, making the UR-1 a plug-and-play USB (Universal Serial Bus) microphone that interfaces with Windows and Macintosh computers without the need for any special drivers. As a USB device, it carries the additional benefit of not requiring an external microphone preamp, as is the case with all other ribbon microphones.

UR-1 Setup

Unpack Your Microphone

Begin by examining the contents of your UR-1. You should have the following components:

- Carrying case
- UR-1 microphone
- Desktop microphone stand
- USB cable
- Cleaning cloth

Correct Positioning and Back Controls

The red LED should be facing you when you speak or sing into the microphone. If recording instruments, the red LED should be facing the instrument. Maintain a distance of approximately 4 – 6 inches when speaking or singing into the microphone. For instruments, experiment with the distance to find the best results.

Red LED

When the red LED is illuminated, this indicates that the microphone is connected to USB power and functioning correctly.

USB Connection

The small end of the USB cable plugs in here. The microphone is backwards compatible with USB 1.1 and 2.0. We do not recommend that you plug the microphone into a hub, as this could potentially limit the power and audio bandwidth the microphone needs to operate.

Analog Gain Control

Use this dial to control the record level of the microphone into the computer. This control changes the analog signal before A/D converter.

Stereo Headphone Jack

The 1/8-inch stereo headphone input accepts most headphones. Maximum headphone volume will vary by manufacturer and model, so care should always be exercised when plugging in. The headphone volume can be changed using controls in the computer.

Analog gain controls
USB Input
Stereo headphone jack with high quality headphone amplifier

Connecting the UR-1 to Your Computer

The UR-1 will operate with both USB 2.0 (high speed USB) and USB 1.1 data buses. We recommend you connect your microphone directly to the computer's USB port as opposed to using a USB hub. USB hubs have been known to interfere with the performance of various USB devices.

Note: Audio and video recording can be very taxing to a computer's resources. For this reason, you should close any and all running applications that are non-essential.

Please take the following steps to get connected:

1. If open, close your audio recording application. You will open it after the UR-1 is connected and operational.

2. Connect the corresponding ends of the supplied USB cable to the UR-1 and the computer's USB port.

3. The red LED on the UR-1 will illuminate indicating it is receiving power from the computer.

Initial Setup with Windows XP®:

1. To select the UR-1 microphone as the default audio device, go to the **Start Menu** and

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select **Control Panel**.

2. Select **Sounds and Audio Devices**.

3. Click on the **Audio** tab and select **USB Audio Codec** as the default device for **Sound** playback and **Sound Recording**.

4. To adjust the output volume from the computer, click on the **Volume** button under **Sound playback**.

5. The master volume output can be changed by moving the **Speaker** fader up or down.

Your Windows XP computer is now set up to use the UR-1. Some recording applications will require additional settings to be changed within the program. Please see your recording software manual for proper setup.

Initial Setup with Windows Vista® and Windows 7®:

1. To select the UR-1 as the default audio device, go to the **Start Menu** and select **Control Panel**.

2. Double click the **Sound icon**.

3. Select the **Playback tab**. Highlight the speaker icon labeled as **USB Audio Device** and click the **Set Default** button. To make further adjustments to the playback volume and settings, double-click on the speaker icon labeled **USB Audio Device**.

4. To adjust the volume from the computer, click on the tab labeled **Levels**. The master volume output can be changed by moving the **Speaker** fader left or right.

5. To change the sample rate and bit depth, click on the tab labeled **Advanced**. From the drop-down menu, you can change the sample rate and bit-depth for audio playback. When you are finished making changes, click the **OK** button. Please note that you should verify that these settings match the settings in your recording application.

6. To set the UR-1 as the default audio input, select the **Recording tab** back in the **Sound** window. Highlight the microphone icon labeled **USB Audio Device** and click **Set Default.** To make further adjustments to the recording settings, double-click on the microphone icon labeled **USB Audio Device**.

7. Click on the tab labeled **Advanced**. From the drop-down menu you can change the sample rate and bit-depth for audio recording. Please note that you should verify that these settings match the settings in your recording application.

Additional information for Windows 7® users:

In the Advanced > Recording settings, the Mic Gain fader (Image 2) adjusts the microphone
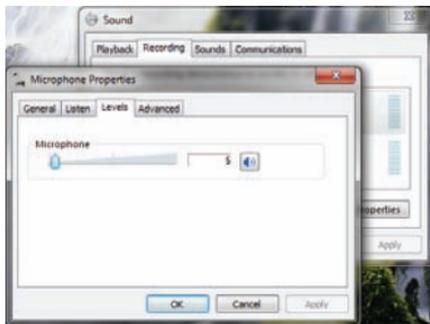

Image 2

recording level. Set this to between 4 and 7 out of 100 as a staring point. Fine tuning can be done later if required.
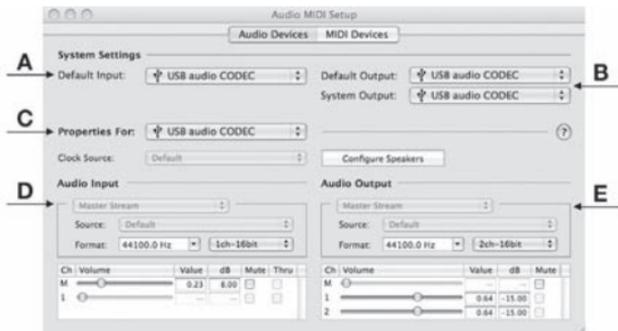
Your computer is now set up to use the UR-1 USB with most recording programs. Some recording applications will require additional settings to be changed within the program. Please see your recording software manual for proper setup.

Initial setup with Macintosh OS X®:

1. To select the UR-1 as the default audio device, click on the **Apple** icon at the top of the screen then select the **System Preferences**.

2. Click on the speaker icon labeled **Sound**.

3. Click on the Input tab then select the device named **USB Audio Codec**. You will notice there are no input level controls for this device. This is because the analog gain control is found on the back of the UR-1.

4. Next, click on the **Output** tab and select the device named **USB Audio Codec**. The master volume output can be changed by adjusting the "output volume fader" left or right.

5. Further adjustments to the sample rate and bit-depths can be found in the **Audio Midi Setup** (Macintosh HD > Applications > Utilities > Audio Midi Setup). You should, however, check the settings in the recording program you are using as they may override or conflict with these settings.

A. By selecting the **USB Audio Codec** as the "Default Input," the UR-1 will automatically be

selected as the audio input device the next time it is plugged in.

B. By selecting the **USB Audio Codec** as the "Default Output," the UR-1 will automatically be selected as the audio output device the next time it is plugged in. By selecting the **USB Audio Codec** as the "System Output," the microphone will be used as the output device for any system sounds.

C. Select the **USB Audio Codec** to make adjustments to the sample rate and bit-depth. You will see sections D and E appear in the lower portion of the window.

D. Here you can make adjustments to the sample rate and bit-depth for the input (the microphone signal).

E. Here you can make adjustments to the sample rate and bit-depth for the output (the signal to the headphones).

Your computer is now set up to use the UR-1. However, after changing these settings you should still check the settings in your recording software. If the sample rate and/or bit-depth in the recording software do not match your hardware, you will most likely hear clicks and pops or the audio will be the wrong pitch.

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Multi-tracking (Windows®):

To get started with multi-tracking and overdubbing, we recommend the free 30 day trial shareware version of Reaper. Go here to download Reaper: http://www.reaper.fm.

Multi-tracking (Macintosh®):

Garage Band is the easiest way to get started if you are using a Macintosh computer. Since it's included on most Macintosh computers, you probably have it installed and ready to go!

Testing Your UR-1:

After you have connected your microphone and set up your computer, plug a set of headphones into the 1/8-inch stereo jack located on the back of the UR-1.

Important Note:

The headphone amplifier can produce very loud sound levels that, when exposed to over a period of time, can cause irreparable hearing damage. Please adjust the headphone level carefully!

You should now be able to hear your computer audio playback as well as the live microphone. When you're ready to begin tracking, open your favorite recording software and make sure it's set up for use with the UR-1 according to the software manufacturer recommendations.

With everything set up and your software application running, snap your fingers in front of the grill and look for a signal on your software's input meters. Never "tap" on the grill to test if a signal is present as this could cause peaking if the microphone gain is set too high. With the signal present, simply position the microphone to best capture the performance. Begin testing the sound source with the microphone and watch the software input meters for clipping. Clipping is a form of distortion that occurs when an amplifier is overdriven and is usually represented by a red bar in your software. Clipping should be avoided at all times for a recording free of poor sounding digital

distortion. Use the analog gain control knob on the mic to set the input level to best capture the sound source without clipping.

Recording Tips:

While it is important to record at a loud enough volume to hear the performance over any background noise, keep in mind that with multi-track recording, each track will eventually be added together (summed) into a final Left and Right stereo mix. Since this summing increases the level of the final signal, tracks should be recorded with a fair amount of space between your maximum signal level and the 0 dB clipping level (this is called headroom). In addition, this will greatly benefit the use of any effects or other signal processing you wish to add later.

If you would like to listen to computer playback while recording or practicing, use the volume control in the computer in combination with the microphone volume dial on the mic to create a balance between computer playback and the live microphone input. The live microphone is mixed to the headphones before any digital conversion to provide the highest audio quality without sound delay (latency) often associated with computer recording. While there is no right or wrong way to record a performance, you can find our Recording Basics guide at www.mxlmics.com to help you with the basic techniques. Remember, recording is a creative process, so experimentation is the key for the best results. Enjoy!

Warranty:

Marshall Microphones are guaranteed against defects in material and workmanship for three years from date of purchase. Should you encounter any problem with this unit, promptly contact the company you purchased it from for assistance. The original dated sales receipt will be necessary for any warranty claim. Do not send any unit directly to us without prior authorization from our service department! Warranty coverage is limited to repair or replacement (at our option) of the microphone, and does not cover incidental damages due to use of this unit, nor damage caused by accidental misuse of this product.