



Wildtronics, LLC



**Amplified Omni
Microphone
Instruction Manual**

Thank you for purchasing the versatile Wildtronics Amplified Omni Microphone. This innovative microphone has built-in, adjustable preamplifiers and offers the following features: Direct headphone output, easily mounts into Wildtronics parabolic kits, the adjustable gain allows you to set optimal levels for any recording device, including cameras and smart phones. This model has an omnidirectional pickup pattern, meaning that it will pick up sound from all directions. As in any omnidirectional microphone, high frequencies are more directional, so you should point the microphone in the direction of the sound source for best fidelity. Installing this microphone into one of our parabolic kits will create a highly directional microphone with much improved acoustic gain for capturing distant subjects. This manual will describe the features and operation of the Amplified Omni Microphone. Please read the entire manual before operating.

Controls and Connectivity

Your Amplified Omni Microphone has a 3.5mm stereo output connector located at the end of the microphone. On the side of the microphone, there is a Power Switch, Filter Switch, a Gain UP, and Gain Down Switch. The label on the Battery Cover will remind you of the switch locations.



Switch Locations

The Power Switch has three positions. The center position is off. When slid to towards the mic end, the Green Power On LED will light, and the output signal will be applied to both the left and right channel of the connector. This is the normal position for headphone use and general recording, often called dual mono output. When the Power Switch is slid towards the connector end, the Green Power On LED will light, and the signal will be applied only to the left channel or tip of the connector, often called single mono output. This position is for connecting two microphones in a stereo pair configuration or when using an XLR adapter. See more about adapting your microphone to XLR connectors later in this manual.

The Filter Switch has two positions. When the switch is slid towards the mic end, the output will have a flat frequency response. When the switch is slid towards the connector end, the output will have a low cut or high pass filter

applied to the output signal. The low cut filter reduces the frequencies below 150Hz. This is useful for reducing traffic rumble and wind noise. Much of the time, you can leave the filter turned on, since there is often not much useful audio below 150Hz.

There are two Gain push button switches. The button closest to the Filter Switch is the Gain UP button, and the button closest to the Power Switch is the Gain Down button. Each press of either button will change the gain by 4dB; hold it down for rapid gain change. The last gain setting is saved when powered off and back on. When you replace the batteries, the gain will default to it's power up value of 10dB. When you press and hold the Gain Down button to reach the lowest gain, the gain will be -15dB. This is actually attenuation, and is useful when recording loud sounds, especially when using limited input devices such as cameras and smart phones. You can get the approximate gain value by counting the number of Gain Up button presses from the lowest setting. For example; hold down the Gain Down button to return to the lowest gain (-15dB), then press the Gain Up button 4 times to reach a gain of 0dB, then press the Gain Up button another 4 times to obtain a gain of about +16dB, and so on. The Gain Down button works the same, 4dB change per press. This process is useful for setting the gain to a known value, such as when using two microphones in a stereo configuration, or to return to a gain that has worked well before.

You can connect headphones directly to the 3.5mm output. This is useful for improving your hearing or use with our parabolic kits for listening to distant sounds. You can use just about any headphone, but we recommend using over the ear type of headphones for better isolation. You can vary the gain of the Amplified Omni Microphone to control the volume. It is not recommended to listen to overly loud sounds for long periods of time, this could lead to hearing damage. The gain of the Amplified Omni Microphone can be set very high. If you turn up the gain too much, you may hear a high pitched ringing. This ringing is called feedback, and is caused by the gain being so high that the microphone picks up the sound from your headphones and forms a positive feedback loop. If feedback occurs, turn the gain down, wear better isolating headphones, or increase your distance from the microphone.

You can obtain excellent low noise recordings by connecting the Amplified Omni Microphone to any type of 3.5mm based recording equipment. Use the included 3.5mm cable to connect to the input of most devices. Adapters may be needed to connect to some equipment, such as smart phones, tablets, or RCA type inputs. If you have a line input, connect to that. If not, you may connect to the microphone level input. The preamplifiers in your Amplified Omni Microphone are very low noise, lower than almost all 3.5mm input recorders. Your recorder's input noise is therefore overwhelmed by the higher level signal from your Amplified Omni Microphone resulting in lower noise. So, for best performance, it is always rec-

ommended to decrease the gain to minimum on your recorder, and use the gain of the Amplified Omni Microphone to set your record levels. You can use some gain in your equipment to fine adjust the gain levels if needed. For most equipment when recording, it is recommended to keep the signal levels between -10dB and -20dB, and never let peaks exceed -5dB. The main idea is to never get close to 0dB, which will cause distortion in your recordings. You can use limiters, if your equipment has them, but note that limiters do not achieve ideal fidelity. Audio editing software is a very valuable tool and should be used to the full extent to enhance your sounds, set levels, filter, and even further decrease unwanted noise in your recordings before presentation.

Adapting to XLR based Equipment

Your Amplified Omni Microphone can also connect to XLR equipment using an adapter or an adapter cable. Phantom power is not used. Your Amplified Omni Microphone output is unbalanced, meaning that there is a single, non differential output. Be sure to use XLR adapters that are unbalanced. Balanced adapters will introduce noise and problems by having one side of the differential input open or ungrounded. Alternatively, a balanced adapter will work if a mono (non-stereo) 3.5mm cable is used, since the ring is then grounded. When using an adapter, be sure to switch the Power Switch to the mono output position, and turn off the phantom power on the channel the mic is connected to. 3.5mm to XLR connectors should be wired as follows: XLR pin 1 is ground, XLR pin 2 is signal, and XLR pin 3 is also ground. The 3.5mm connector's tip should be the signal and the ring and sleeve should be ground. If the adapter cable uses a 3.5mm mono connector, then the tip should be signal and the sleeve ground. An inexpensive 3.5mm to XLR adapter is available from Rode Microphone, their VXL Adapter, which will work with the 3.5mm stereo cable supplied with your Amplified Omni Microphone.

Windscreen

Your Amplified Omni Microphone has an integral windscreen permanently attached over the microphone element. When additional wind protection is needed, use the included external windscreen. Install the windscreen by sliding it over the microphone, down to the O-Ring Groove. The combination of the two windscreens should give you protection from wind up to around 12MPH. You can further decrease the effects of wind buffeting by turning on the Low Cut Filter.

O-Ring

Near the microphone end, you will see a rubber O-Ring in a groove. This O-Ring is used as a depth stop for quick mounting in our Pro Mini or All Purpose Parabolic Kits. The O-Ring sets the correct focal point. Review the manual of the

parabolic kits for microphone mounting details. If you never use a Wildtronic's parabolic kit, then you may remove the O-Ring.

Removing and Installing Batteries

Your Amplified Omni Microphone uses two CR2 Lithium batteries. You may also use rechargeable CR2 Lithium batteries, but they will have reduced operating life. Removing and installing batteries is very easy. The batteries are located underneath the plastic battery cover where the label is located. Note the arrow indication on the battery cover. Rotate the battery cover in the direction of the arrow until the battery compartment is exposed by the gap in the cover. You will notice a piece of felt fabric that covers the battery. Gently lift the felt, but don't pull on it. The felt keeps the battery in place when the cover is on. Use your finger nail or small screwdriver to lift the end of the battery near the switches. Once you pry up the battery, you can grab and remove it. Now, slide the second battery towards the opening, and let it drop out. Installing the batteries is the reverse procedure. Note the battery polarity as indicated on the label inside the compartment. On both batteries, the negative polarity should be towards the microphone element end. Place the felt over the battery and close the battery compartment by rotating the battery cover in the direction of the arrow, until the batteries are completely covered.



Rotate Battery Cover



Lift Felt Cover



Pry Battery Up



Battery Polarity Label



Install 2 Batteries



Close Battery Cover

Care

Your Amplified Omni Microphone doesn't require maintenance, but do keep some things in mind. For long term storage, it is best to remove the batteries to prevent the possibility of battery leakage causing corrosion. Clean with mild detergent on a damp towel, and prevent liquids from entering the inside of the microphone case. As with most microphones, this microphone is not waterproof, so keep it away from water and rain.

Warranty

The Wildtronics Amplified Omni Microphone is warranted for 1 year against manufacturer defects and limited operational problems when used under normal conditions. Wildtronics always tries to resolve any issues.

This product has been manufactured and tested to the highest quality standards by Wildtronics, LLC. This Limited Warranty offered by Wildtronics, LLC covers defects in material or workmanship in new Wildtronics, LLC products. This warranty extends to the original purchaser only and is non-transferable. Only consumers purchasing Wildtronics, LLC products from authorized Wildtronics, LLC retailers, Wildtronics, LLC distributors, or through the Wildtronics, LLC website may obtain coverage under our limited warranties.

What is covered? Wildtronics, LLC warrants this product against defects in material or workmanship as follows: Wildtronics, LLC will replace at no charge parts, or at its option, replace any assembly of the product that proves defective because of improper workmanship and/or material, under normal use. If repair is not practical, Wildtronics, LLC may elect to refund the purchase price in exchange for the return of the product.

What Our Warranty Does Not Cover? Our warranties do not cover any problem that is caused by:

A. Conditions, malfunctions or damage not resulting from defects in material or workmanship.

B. Conditions, malfunctions or damage resulting from normal wear and tear, improper installation, misuse, abuse, negligence, accident or alteration. In the specific case of use with a Parabolic Dish, damage caused by pointing towards the sun and causing heat destruction will not be covered.

C. Accessories, connected materials and products, or related products not manufactured by Wildtronics, LLC, or problems that are caused by connecting products not manufactured by Wildtronics, LLC.

How to File a Claim? Wildtronics, LLC will not provide any warranty coverage unless claims are made in compliance with all terms of the warranty statement

included with your Wildtronics, LLC product and you follow proper return procedure. To request warranty service, you will need to provide:

1. The sales receipt or other evidence of the date and place of purchase.
2. A description of the problem.
3. Obtain a RMA number by contacting Wildtronics, LLC for shipping information. You are responsible for the shipping to us, and we will ship the unit back to you (non-expedited) at our cost.

To obtain repairs, after the warranty period, or replacement consumables, contact Wildtronics, LLC for information and pricing.

Specifications

Polar Pattern: Omnidirectional

Frequency Response: 20-20KHz

Maximum Input Sound Level at minimum gain: 135dB, 1Khz THD <3%

Signal to Noise Ratio: 80dB, Self Noise: 14dBA

Mic Sensitivity at 0dB gain: -37dB or 14mV/PA at 1kHz

Gain Range: -15dB to >85dB

Gain change per step: 4dB

Preamp EIN (equivalent input noise): -126dBA

Maximum Undistorted Output Signal: +3dBu

Output impedance: 6.8 ohms

Headphone Drive: 30mW/channel

Output Connector: stereo 3.5mm jack

Switch Selectable Output: Dual Mono, Single Mono

3.5mm Connector Wiring: Tip= left, Ring= right, Shield= ground

Filter Switch: Flat or 150Hz low cut, 6dB/octave

Weight: 3oz, 4oz with batteries installed

Dimensions: 25.4x152mm (1.0x6.0 inches)

Batteries: 2-CR2 3-Volt Lithium

Battery Life: 65 hours with headphones, 110 hours without headphone use

Power Off, Standby Battery Life: up to 3.5 years

Microphone Housing: machined aluminum, powder coat finish

Type of Microphone Element: permanently charged condenser

Power On LED: green, visible in sunlight

Safe from accidental Phantom Power application when used with XLR adapters and XLR equipment

Made in the USA, CE compliant.

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