# VR15
# SPATIAL MICROPHONE
## Android Guide

**Western Electric** ® · PanAural

The PanAural™ VR15 Spatial Microphone captures three-dimensional audio on Android devices. This guide will help you get started and offer useful tips to get the most out of your VR15.

**IMPORTANT: We strongly suggest that you switch to "Airplane Mode" when recording.
You don't want phone calls, text alerts or notifications disrupting your recordings!**

The VR15 spatial microphone captures sound with stunning realism. It's as if you are there. The sound is a perfect match for today's mobile devices, especially the latest 4K/HD models. What's been missing up until now is the ability to capture sound with a realism that matches the picture. The VR15 solves the problem. You'll capture the sounds of live concerts, shows, band rehearsals and those special moments as if you are there.

Our engineers developed PanAural by taking a fresh, new approach to sound recording using mobile devices. We asked the question: Why are sound files so one dimensional when our sense of hearing has a fantastic ability to locate sounds coming from all around us?

Research in the field of cognitive psychology tells us the Head Related Transfer Function (HRTF) and its associated time and level differences are critical for cueing our mind's auditory perception. Yet traditional microphones and the way they're engineered into mobile devices do not adequately capture this function. We've replaced them with our VR15 Spatial Microphone. It embeds the HRTF into the file while you're making the recording, so it captures sound the way you hear it.

When you play back a PanAural file your mind detects the perceptual cues. The sound image expands outside your head and beyond. Left, right, in front, and behind – you'll hear the full 360-degree soundstage all around you. We've engineered the VR15 Spatial Microphone to capture live audio signals the way your mind has evolved to process them. We feed your ears the perceptual cues that lets your mind recreate the audio image. The result is incredibly realistic; it's as if you are there.

You wear the VR15 Spatial Microphone on your ears. You become the sound engineer. It's made of a malleable material, so you can shape it to fit your own ears. The slip-on design is comfortable to wear and very discrete. It's shockproof, waterproof, and it plugs directly into your mobile device's charging port*.

*Adapters sold separately. Android: Micro USB or USB-C to USB-A Female OTG Adapter.

**A list of recommended, stereo recording apps is available on our website, panaural.com.**

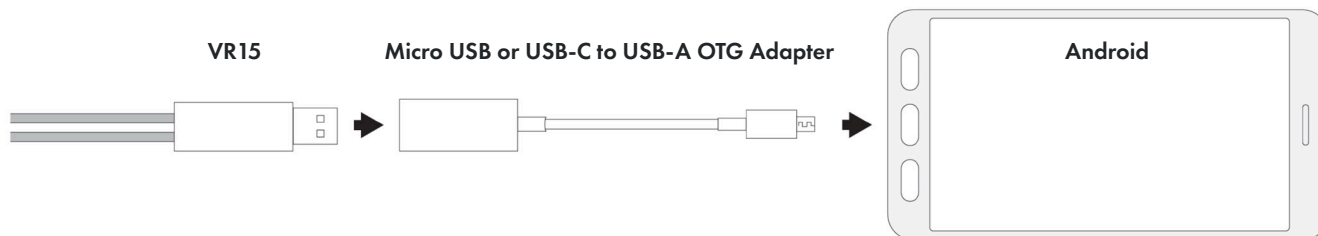**The following is a best practices overview for recording with an app on Android device.**

Plug the VR15 into the Android device's charging port using a Micro USB Male or USB-C to USB-A Female OTG Adapter You must use an OTG adapter. **The cable that came with your Android device may not work. v**

Each App is the creation of an individual developer. There are no industry standards for audio recording on mobile devices, so you'll find the User Interface (UI) as well as the signal processing vary widely between Apps. Some Apps will hijack control of Panaural's internal Digital Signal Processing (DSP) in unexpected ways.

The International standard for testing microphone output level is 94dB Sound Pressure Level (SPL), which is equal to a pressure of 1 Pascal. That is loud! When we do our final testing of the VR15 Spatial Microphones however, we do it at an even higher level of 120 dB SPL. That is as loud as it gets at a heavily amplified rock concert. Our reason for this choice is to guarantee you will not have any distortion caused by the microphone. If there is distortion in your recording, it's because the App's mic volume (Input Level) is not set correctly.

If your selected app supports input level control or manual metering, adjust it by watching the colors displayed on its meter scale. You want to set the Volume so the meters show green most of the time, yellow some of the time, and red only once in a while when the sound reaches its peak loudness.

| VR15 | Micro USB or USB-C to USB-A OTG Adapter | Android |

**IMPORTANT:**
1.) Plug the OTG Adapter Cable into your Android device.
2.) Plug the VR15-USB into the OTG Adapter Cable.
3.) Launch the App.

Following this procedure will ensure your device recognizes the VR15-USB