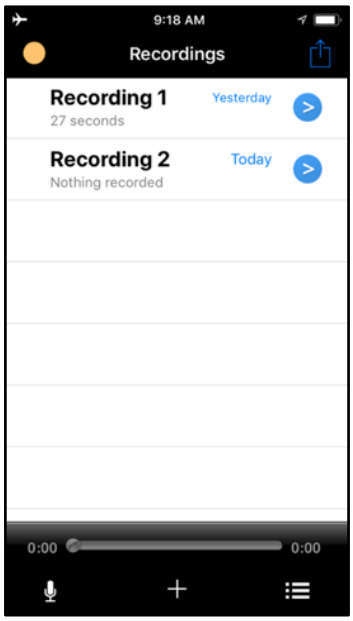
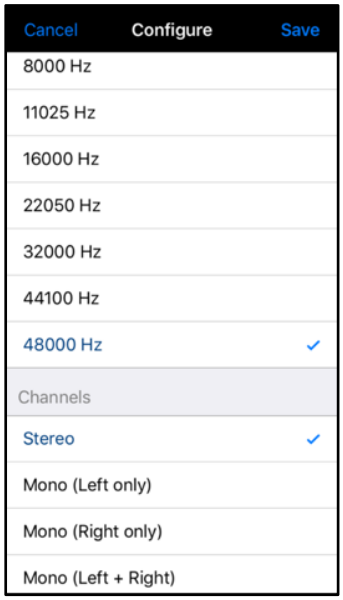
RØDE - iOS

Audio Recording App – sampling frequency 44.1/48kHz, output file 24-bits resolution.
www.rode.com

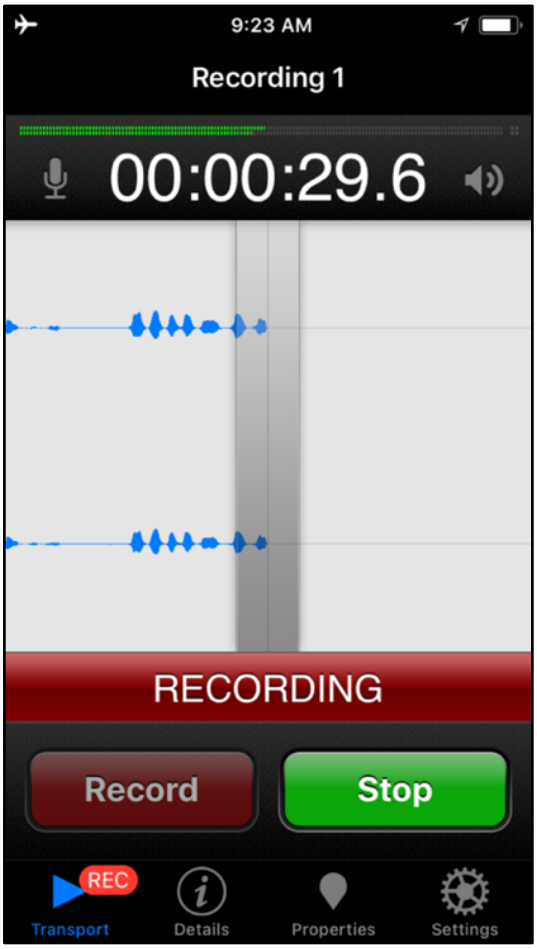
The Initial Screen for the Røde App is actually your library of Recordings. To make a new recording, click on the microphone icon at the bottom left of the screen.



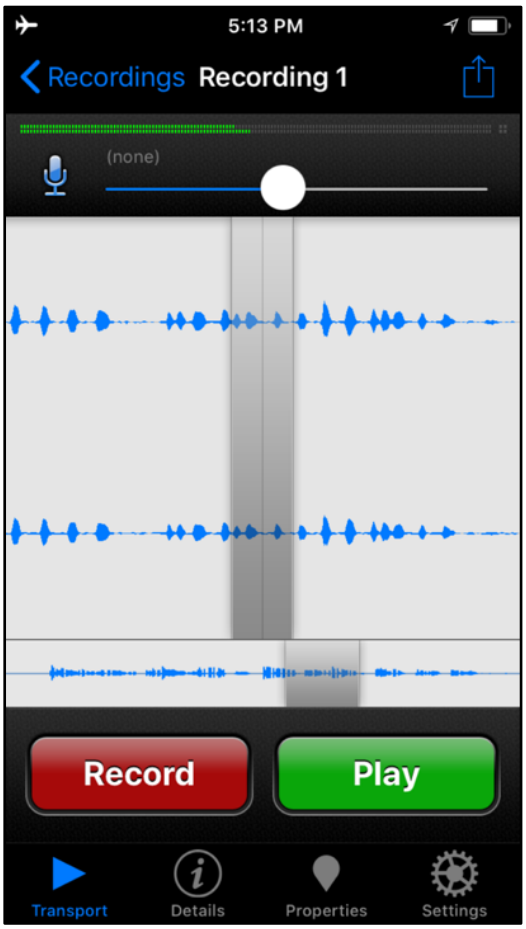
Here you see the Configure Screen where you can select the sampling frequency from 8kHz to 48kHz. You also have the option to select mono or stereo modes. The bit depth for the recording is fixed at 24 bits.



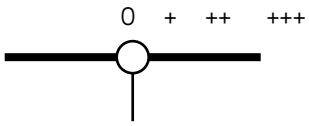
The Main Screen of the Røde App features a clean layout with audio meters at the top, just above the time code display. The waveform monitor is in the middle of the screen with big buttons for transport control at the bottom. The meters are a bit small, but they do show both tracks of the stereo signal. The meters are in Monitor Mode, so you can see your input levels immediately without hitting Record. These meters use the K scale. You can switch them to K12, K14 and K20. For more info on Bob Katz and K scales see: https://en.wikipedia.org/wiki/K-system.



The Mic Volume control appears when you press the microphone icon to the left of the time code display.

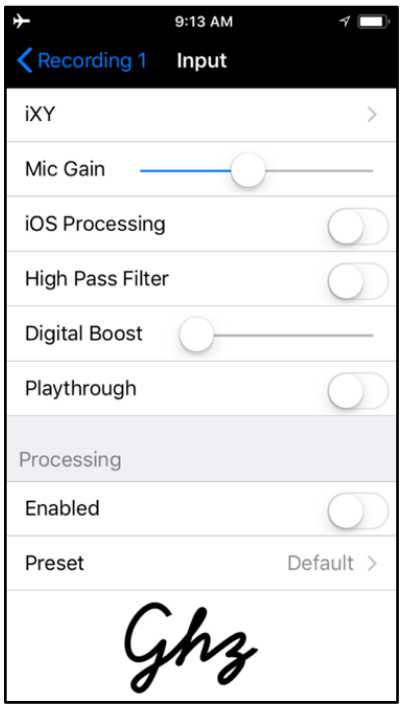


We suggest you start with the Mic Volume set to its mid position just to the right of the cursor. (see screen photo). That's the setting we used for our tests with good results. You adjust the signal level with the slider control using the meters as your guide. Here is a graphic to illustrate the settings we used in our tests. The center of the range aligns just to the right of the waveform display's cursor. Here we show three relative gain settings.



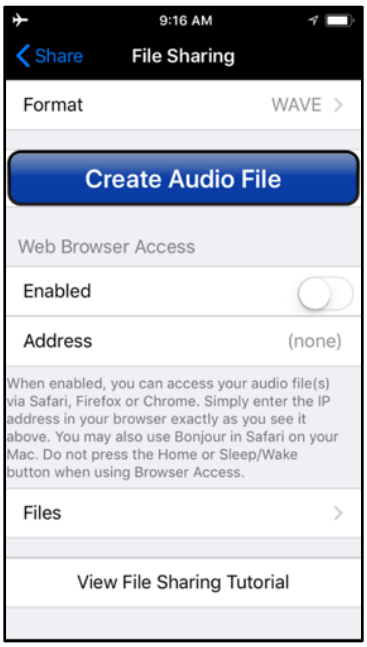
We found that the 0-gain setting near the center works best for recording live music concerts. You can use the + and ++ gain settings for recording voice or softer, acoustic instruments. The setting +++ should be used with caution because it can cause distortion due to clipping. The control is not calibrated, so there is no reference for repeating exact levels, although the App remembers your last setting.

You access the full menu of controls by pressing the "gear" icon at the bottom right of the App's Main Screen.

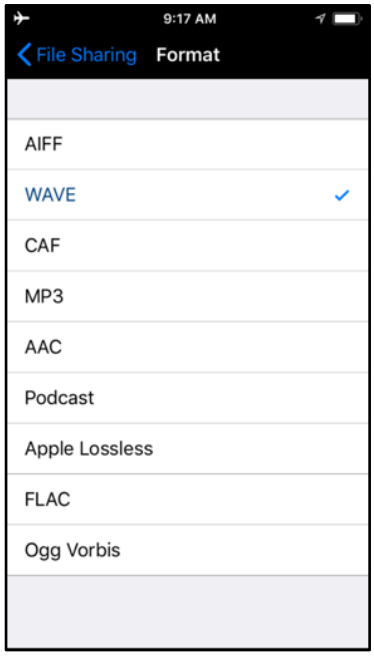


On the Control Screen you see many functions in addition to the Mic Gain (Input Level) control. Be sure to turn the "iOS Processing" to OFF. This is a type of Automatic Level processing that compresses the audio signal often in undesirable ways. Note: "Digital Boost" is actually the Playback Level. This control does not have an effect on the Record Level. Unfortunately, there is no indication of whether the Input selection is set to SonicPresence®. You can double check this selection by observing the main screen meters. When the input is set to SonicPresence®, there are two level meters showing the Left and Right stereo signals.

One peculiarity of the Røde App is the way in which you access your files. They are not visible in the iTunes File Finder until you process the file with "Create Audio File". You hit the upload icon on the main screen's upper right to bring up this File Sharing menu.



Before hitting the Create Audio File, you select the Format. Here are the formats you can choose for your output file.



You can repeat the Create Audio File process for each type of file you want to output. Now when you go to the iTunes File Finder, the files will appear in the Røde folder. If you selected the WAV file Format, the shorter files will be WAV, while longer files will be in CAF Format. Don't panic, CAF files are compatible with WAV files.

Meter check and Level Test

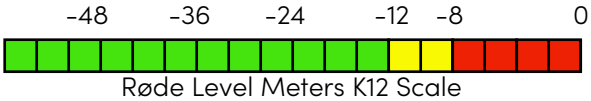
We ran our tests with the Mic Volume (Input Gain) set to the center position or "0". We use this gain setting as a reference point. You can see from the following table that the Input Gain is adjustable over a wide range.

In fact, the range is too wide for the small size of the slider control. Be cautious when making adjustments, since a slight nudge can make a big change. We strongly suggest you leave the Input Gain in the center position most of the time. If the sound is extremely loud, a slight nudge to the left is all that's needed. Same rule of thumb for softer sounds. A slight nudge to the right is all that's needed.

Røde Mic Volume							
Scale	---	--	-	center	+	++	+++
Gain dB	-30	-20	-10	0	+15	+25	+35

Our acoustic signal generator calibrated to 120dB.SPL registers in the red scale on the meter display. That same acoustic generator set to 94dB SPL registers in the mid green scale on the meter display. This confirms the app has a Linear response, which means that changes in the Output Level accurately follow changes in the Input Level.

The meter's scale markings are not calibrated in dB. However, our electrical measurement confirms these meters are 100% accurate to the K scales. This particular one is the K 12 scale. The red scale range is 0dB to -8dB, the yellow -8dB to -12dB and the green scale is from -12dB down to infinity. Here is a graphic with our test calibration marks.



Røde Level Meters K12 Scale

This table shows the detailed test results for this app's performance.

Røde							
scale	green	green	green	green	yellow	red	red
scale marking	na	na	na	na	na	na	na
generator mV rms	5	10	13	20	50	80	160
calculated level in dB	-30.1	-24.1	-21.8	-18.1	-10.1	-6.0	0
PB level dB(analog)	-32	-24	-18	na	-12	-8	-4
reference acoustic level		94dBSPL					120dB SPL