

# GarageBand - iOS

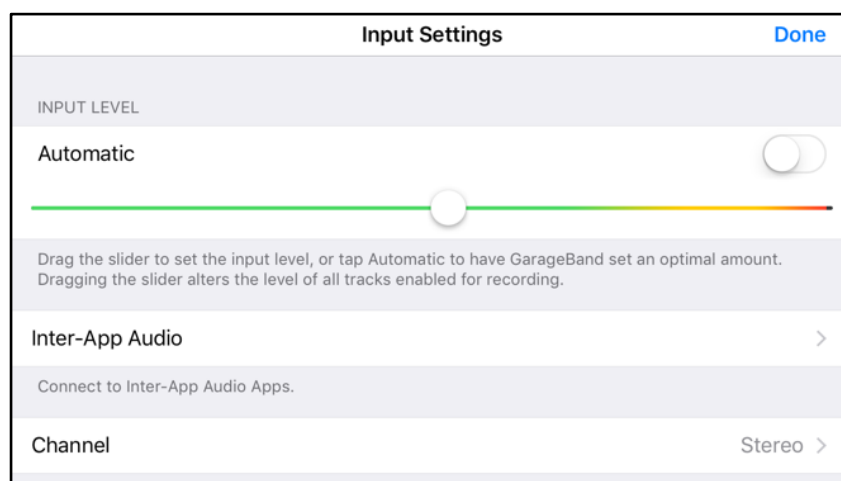
Audio Recording App – sampling frequency 44.1kHz, output files in compressed format.

[www.apple.com](http://www.apple.com)



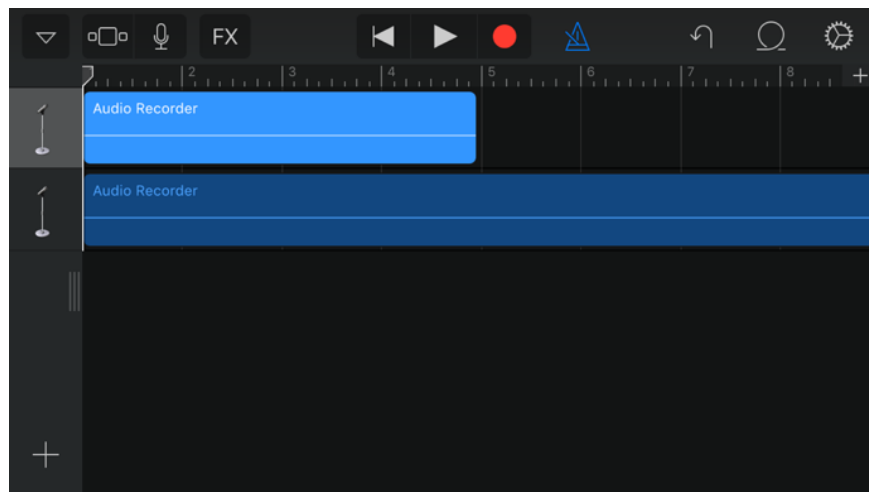
GarageBand for iPhone has a very clean Main Screen layout, but with limited controls. There are no controls in GarageBand to set sampling frequency (it's fixed at 44.1kHz) or word size (it's fixed at 16 bits). There's a VU meter that monitors the level of the combined audio channels. The display on the right shows a message confirming the presence of a USB interface. That's our SonicPresence® SP15C microphone that it's detected, although it doesn't say that specifically.

There's an Input Selector icon on the upper left of the Main Screen, that looks like a phone jack. If you click on the phone jack icon, you will see this menu:



This screen shows you the Input Level (Mic Volume) slider control. It's not calibrated, but behind it is a meter showing the recording level with green, yellow and red indications. We set the slider to the mid position, which worked well for our tests.

You access this track layout screen by clicking on the “...” icon from the Main Screen. With this App, you can record and overdub multiple tracks although we only used it for Stereo.



The red LED at the top of the screen indicates when you are in Recording mode. There is no timecode display, but there is a ruler calibrated in musical bars that indicates the relative time position in the track. GarageBand has many built in audio effects such as echo, reverb and EQ.

### Meter Check and Level Test

Garage Band’s front panel meter appears to be a VU meter, but actually it’s not. A standard VU meter would show a red scale of 3dB above zero. Interestingly, our tests reveal that the ‘+5dB mark is in fact at +3dB. Maybe it is a VU meter!

We set the input level control to the center position, which gave our 120dB SPL acoustic test signal a reading ‘+5dB on the front meter. You can see from the record and playback readings in the table they follow our generator level very closely. That means this App exhibits good signal linearity, which means that changes in the Output Level accurately follow changes in the Input Level. The meter scale differs somewhat from the test values, but this is due to the positioning of the graphics. In our opinion, this is an accurate meter for setting record levels. The analog output level measured at the headphone jack also shows very good linearity.

GarageBand		Mic Volume = center						
scale		yellow	yellow	yellow	yellow	yellow	red	red
scale marking		-20	-15	-10	-6	0	+3	+5
generator mV rms		8	na	26	60	120	145	170
calculated level in dB		26.5	na	16.3	9.0	3.0	1.4	0
PB level dB(analog)		-27	na	-16.5	-9.2	-3.2	-1.5	0
reference acoustic level		94dB SPL						120dB SPL