# TinnitusOFF Manual

## Introduction

Tinnitus is a symptom described as a loud, permanent, ringing in the ear affecting 3-5% of the population.

Tinnitus OFF is based on "tailor made notched music therapy", where you listen to music with tones around your tinnitus frequency damped out. After prolonged exposure to such therapy, brain starts to ignore these frequencies and your tinnitus loudness reduces.

# Is TinnitusOFF the best help for me?

TinnitusOFF is a software that help users with tinnitus that:

- -are subjective,
- -are tonal with a stable frequency
- -are associated with hearing loss less than 60 dB (Half octave below the tinnitus frequency)

Read this five questions and find out if your tinnitus is suitable for music notch therapy.

### (Q1) Do you have constant ringing in the ear?

- No → You don't need TinnitusOFF.
- Yes → Go on next question.

## (Q2) How would you describe it?

- <u>Pulsatile</u> →TinnitusOFF didn't show evidence of positive results for your type of tinnitus.
- Continuous → Go on next question.

# (Q3) How would you define the pitch of your tinnitus?

- Very high → TinnitusOFF didn't show evidence of positive results for your type of tinnitus.
- Very low → TinnitusOFF didn't show evidence of positive results for your type of tinnitus.
- Low or High → Go on next question.

## (Q4) How would you define the tone of your tinnitus?

- The same tone in both ears. Or Tone in just one ear. Or One tone in left,
  the other one in right. → Go on next question.
- Multiple tones in one or both ears → TinnitusOFF didn't show evidence of positive results for your type of tinnitus.

# (Q5) How is your Hearing loss?

- a) Do you have hearing loss in the ear where you have tinnitus?
- b) Can music mask your tinnitus without being too loud? (read about masking in FAQ part; to check if it is too loud → ask somebody who doesn't have hearing problems to help you)

If a) is **yes** and b) is **no** → TinnitusOFF didn't show evidence of positive results for your type of tinnitus. However, if listening to music with TinnitusOFF is more comfortable than without, keep using it.

If a) is **no** and b) is **yes** → You're valid candidate for this kind of therapy!

# How to use TinnitusOFF?

#### On iOS

Step one: Find the frequency of your own tinnitus tone

Noise bandwidth

You can begin with wide noise bandwidth, switch to medium and confirm on narrow noise bandwidth.

Noise type

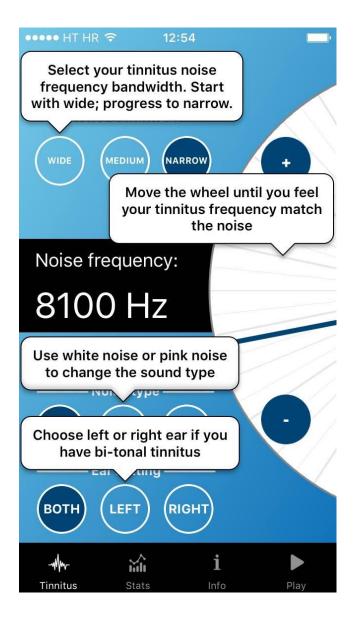
Use white or pink noise or pink noise to change the sound type

Ear setting

Select in which ear are you going to define your frequency. It can either be left, right, or both, depending on where you have tinnitus.

Find frequency

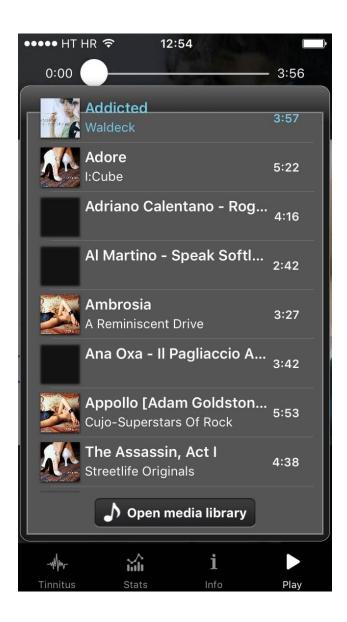
Drag your finger to find to move needle on the white wheel. You can use "+" and/or "-". The sound in your ears should meld with the sound coming from the application.



Step two: Choose your playlist

Click on Pick songs to play





Step three: Listen to filtered music

Select playlist and press figure of musical note in the bottom of the screen There you will see all music on your Iphone; by artists, songs and albums. Click on the song, artist or album you like and add them to your playlist by clicking "plus" symbol. Select your playlist and press Play.

# Frequently Asked Questions

### What is masking?

When you hear two sounds at the same time, and one of them is preventing you from hearing another, the one which is preventing is masking. For example, if you are having a conversation near the bus station, and the bus suddenly passes you – it will probably *mask* you or the person you are talking to so you won't be able to hear each other.

### What is hearing loss?

Hearing loss is the inability to hear in one or both ears. It can be partial or total. Sometimes it happen with aging or with some kind of acoustic trauma. If you suspect you have hearing loss, but you are not sure, you should consult yourself with your doctor.

### What is the difference between frequency and noise?

Sound is the quickly varying pressure wave travelling through a medium. When sound travels through air, the atmospheric pressure varies periodically. The number of pressure variations per second is called the frequency of sound, and is measured in Hertz (Hz) which is defined as cycles per second. The higher the frequency, the more high-pitched a sound is perceived.

## Recommendations

### About your tinnitus frequency

The aim of the diagnostic part is that you recognize and select a frequency in the equivalent rectangular bandwidths (ERB) of your tinnitus. The ERB is dependent on frequency, so if your tinnitus frequency is 8000 Hz, the ERB is about 80000 Hz, which means you'd have to get within a 800Hz of your true tinnitus frequency.

If you are not sure that you'd hit frequency in the ERB of your tinnitus (you didn't feel any melting between your tinnitus' frequency and the device), try it on <a href="http://generalfuzz.net/acrn">http://generalfuzz.net/acrn</a> The best solution is to scheduled an audiometry test.

Through your sessions, we recommend to check your frequency regularly (weekly based) in order to benefit optimal effect.

#### How often should I listen music with TinnitusOFF

We recommend you at least one hour every day, whenever you can. There are no scientific studies showing positive results in subject listening to Music notch therapy less than one hour a day during a period of 12 month for long term stability of the effects. 90 minutes per day showed

Some intensive protocols showed good results, as a 5 day therapy with 3 hours at day 1, 6 hours at day 2,3,4 and 3 hours at day 5.

### Should I use quality headphone?

Headphones must be used.

Although any headphones are better than none it is **highly** recommended to use high-quality headphones:

- circumaural covering whole ear to block surround noises
- closed type to block surround noises
- NO active noise cancelation mechanism (ANC) changes frequency specter of the sound
- FLAT frequency response no artificially amplified / weaken some parts of frequency specter
- wired wireless headphones additionally encode/decode the sound while sending it to headphone's receiver. This potentially reduces the quality of the sound.