



Tinnitus help for Android

Operation

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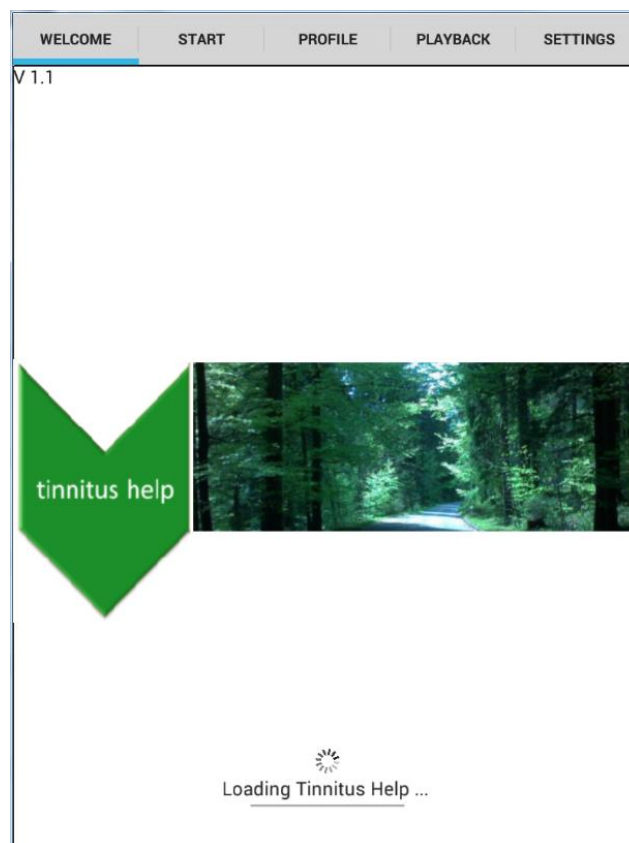
1 Installation

Before installation, please check whether the following system requirements apply to your device.

System Requirements

- Fast internet connection via Wi-Fi
- 1.6 GB free device memory

After downloading the app from the Google Play Store, the main program will as usual be automatically installed on the device. According to the Google Play Store app description, the program also needs a 1.5 GB sound database which is downloaded from our website on first app launch. For this a fast transfer rate is recommended. Depending on the transmission rate the download may take several 10 minutes. The download progress is displayed below the tinnitus help logos, see the following example.



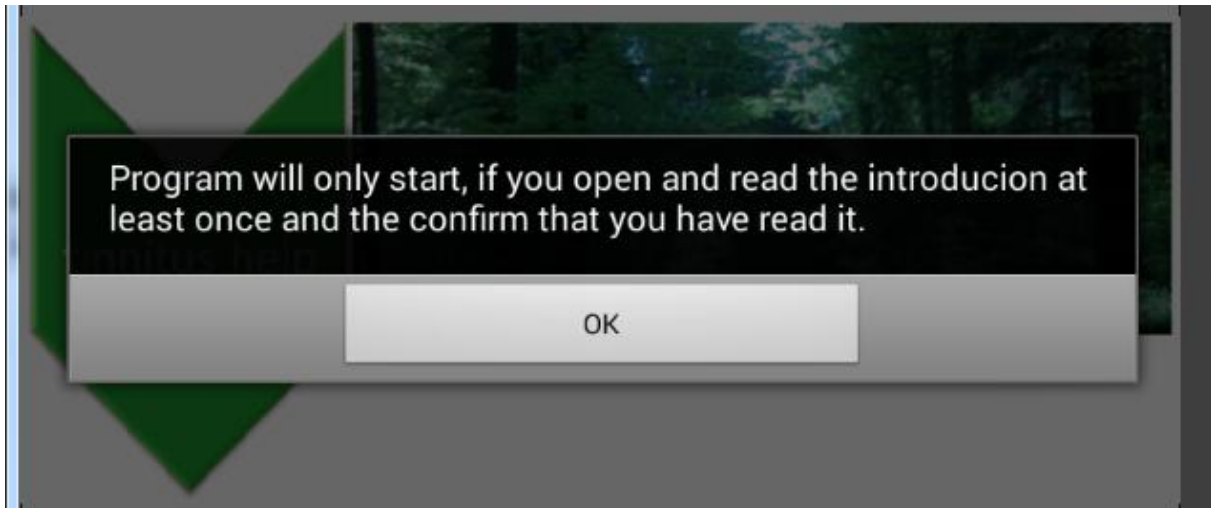
A percentage and a bar to show the download progress. When the loading indicators disappear, tinnitus help is ready.

Why does tinnitus help need relatively much of storage space?

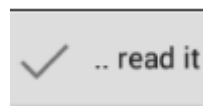
Tinnitus help contains many sound- and music files. They are not reduced by compression methods such as MP3 and are thus in full CD quality. This can be advantageous for the success of treatment.

Just one more step to the use of the Program

Before you use the program for the first time, please read the introduction ...



... and confirm that you have read it:

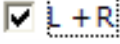


The confirmation is necessary because here you can read important information concerning the handling of the program. Thus it is prevented that the user damages accidentally his ears.

2 Short and precise: How to use tinnitus help

2.1 Step by step

1. Put on your headphones
2. Click on "Start"
3. Select the tinnitus frequency that matches your left ear, your right ear or both ears
4. Set the volume so that your tinnitus is just covered, taking care that the frequency is not too loud. It should only be heard softly in the background. If you have difficulties finding your tinnitus frequency this will probably be because the tinnitus reflects the range of your hearing loss, i.e. a frequency range that is difficult to hear for you. This is a common occurrence. If this happens, don't give up, stay with this frequency even if you can hardly hear it. Your auditory cortex will be stimulated nevertheless, that will encourage your auditory perception.
5. Do you hear your tinnitus sound oscillating or fluctuating? Or at different noise levels or different pitches? Then use the set up variations in volume, vibrato and tremolo.
6. If you hear a hissing, roaring or chirping noise sound in addition to your tinnitus, select that sound too and set it to the same volume.
7. You have now set up your tinnitus profile and you can check under "settings".
8. Mix your chosen tinnitus profile with a pleasing additional sound (trickling water, summer rain, bird song etc.) and start the process of masking. Your tinnitus will move more and more into the background and becomes thereby less and less obvious.
9. Would you like to add music to your tinnitus setting? If you do, select a pleasing piece for "reprogramming". Please read below what you have to notice when listening to music.
10. On the screen "setting" you will see all information concerning your personal tinnitus profile at a glance. In the bottom third of the screen you will see the masking sound that you have chosen or the piece of music you have selected for reprogramming.
11. On the screen "settings" save your personal tinnitus profile and your 'tinnitus help' mix by using the "save" button and access it wherever you are and whenever you need it. Do you want to make changes to your profile or your mix? Go back directly to the accordant view. Do you want to create an entirely new profile? You can do this via the view "settings" and the button "New". Via the view "start" and the following pages you can now create a new profile.
12. Do you still hear your tinnitus whilst using your personal tinnitus setting? Don't be tempted, don't turn your profile louder, but go back to "start" and choose a different tinnitus frequency. This new frequency needs to be very similar to the one you selected previously. Mix this frequency with a pleasing sound as a diversion from your tinnitus.
13. Use your personal tinnitus setting at least for 15 minutes each day.
14. When you are on edge and very stressed, you can use the program up to 2 hours. However, only do this if you have mixed your tinnitus profile with pleasing music.

Hint: Press the (L+R) button  for settings that are identical for both ears. When L+R has been set, the slide switches will automatically move simultaneously.

2.2 *Tinnitus help with music*

Only use this function if you find yourself in a relaxing environment - free from any disturbances. It will have the best effect if you can lie down and relax your whole body. This is how it is done:

1. Select one of the pieces of music on offer and mix it with your personal tinnitus profile. When music is added, your individual tinnitus setting should be barely perceptible. The music is now playing the leading role.
2. Once you have chosen a piece of music you should initially stay with this piece for at least a fortnight. This is necessary to achieve a reprogramming of the brain (see "Why can '**tinnitus help**' relieve the effect of noises in your ear?").

2.3 *Why can ,tinnitus help' relieve the effect of noises in your ear?*

'**tinnitus help**' is a program that has been developed over the last five years whilst working with tinnitus patients. sufferers. It has been established and Experience has shown that indeed it can really can be used to achieve changes in the ear change subjective hearing and in a person's the auditory perception. This will have a positive effect on the sufferer's physical as well as mental condition.

'**tinnitus help**' utilizes the fact that the same brain activities that enable us to perceive auditory stimuli, i.e. real sounds, also cause the perception of the tinnitus sound in the ear or head. Thus '**tinnitus help**' is able to intervene in all central auditory processes.

'**tinnitus help**' reflects forms an image of your individual tinnitus frequency and offers you the option to mix this frequency with pleasant sounds or even music. This means that '**tinnitus help**' can assist you to change the way you perceive your tinnitus sound by letting it gradually fade into the background. Regular listening to your individual '**tinnitus help**' setting will enable you to learn how to increasingly fade out the sound in your ear and eventually ignore it. Experts call this "habituation".

This means that '**tinnitus help**' can assist you to change the way you perceive your tinnitus sound by letting it gradually fade into the background. By listening regularly to your individual '**tinnitus help**' setting you will be able to learn how to increasingly cut off the sound in your ear, enabling you to ignore it. Experts call this "habituation".

The association "I am hearing one or several sounds or music that are pleasing" will at first be stored in the hippocampus, our memory centre. If the experience

is repeated by using '**tinnitus help**', the hippocampus works like a trainer for your cerebral cortex. It will repeatedly offer the stored information to the cerebral cortex with the result that this new input will be learnt and new programmes will be etched into the auditory cortex.

It will repeatedly offer the stored information to the cerebral cortex, resulting in the new input being learnt and new programs etched into the auditory cortex. It has been proved shown that regularly recurring musical structures act like a massage on certain areas of the brain. Where tinnitus is present, this will be experienced as a negative effect. However, you , the tinnitus sufferer, can turn this to your advantage by calling up your very own personalized music in your head. It is retrievable whenever you need it.

To achieve a positive activation of the various systems in the brain, the hearing experience needs to be

- pleasing and enjoyable
- corresponding to the tinnitus noise and the hearing loss.

This means that, the tinnitus sufferer, can influence your perception processes and learn to set up the reprogramming of your central auditory pathway.

3 The program's functions in detail

The following sections describe all controls of the various views in order of the sequential arrangement of the program tabs above and below.

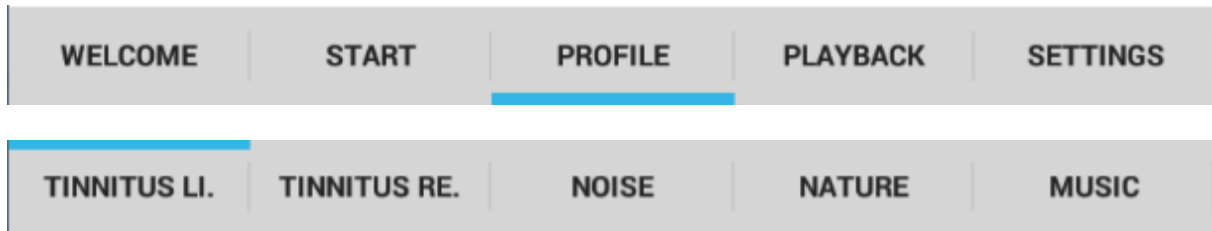



Figure 3-1: Selection of a program view via tabs

There are the following views:

- [Welcome](#)
- [Start](#)
- [Profile -> Tinnitus Li. – Tinnitus-profile detection left](#)
- [Profile -> Tinnitus Re. – Tinnitus-profile detection right](#)
- [Profile -> Noise - tinnitus-profile](#)
- [Profile -> Nature - Masking with sounds of nature](#)
- [Profile -> Music - Reprogramming with music](#)
- [Playback](#)
- [Settings](#)

Before explaining them, some controls are shown, that are common to all or several program views.


3.1 Common controls

The checkbox (L+R)  indicates if the setting of right and left channel are linked together.

While it is marked both channels are coupled and a setting provokes an identical setting of the other channel. A missing check mark color indicates decoupling of the channels. Both channels can be set up independently.

Purpose of a left-right-coupling is an easier handling for patients who perceive the same noises on both ears.

Pressing the checkbox switches the coupling on and off.

The progress bar  is only visible if requested sound- or music files are loaded into memory. That also happens at each program start and shows the remaining loading time.

3.2 Welcome



Performing a click on the icon „TinnitusHelp“ starts **tinnitus help**. The following view appears and a gentle bird’s twitter can be heard:

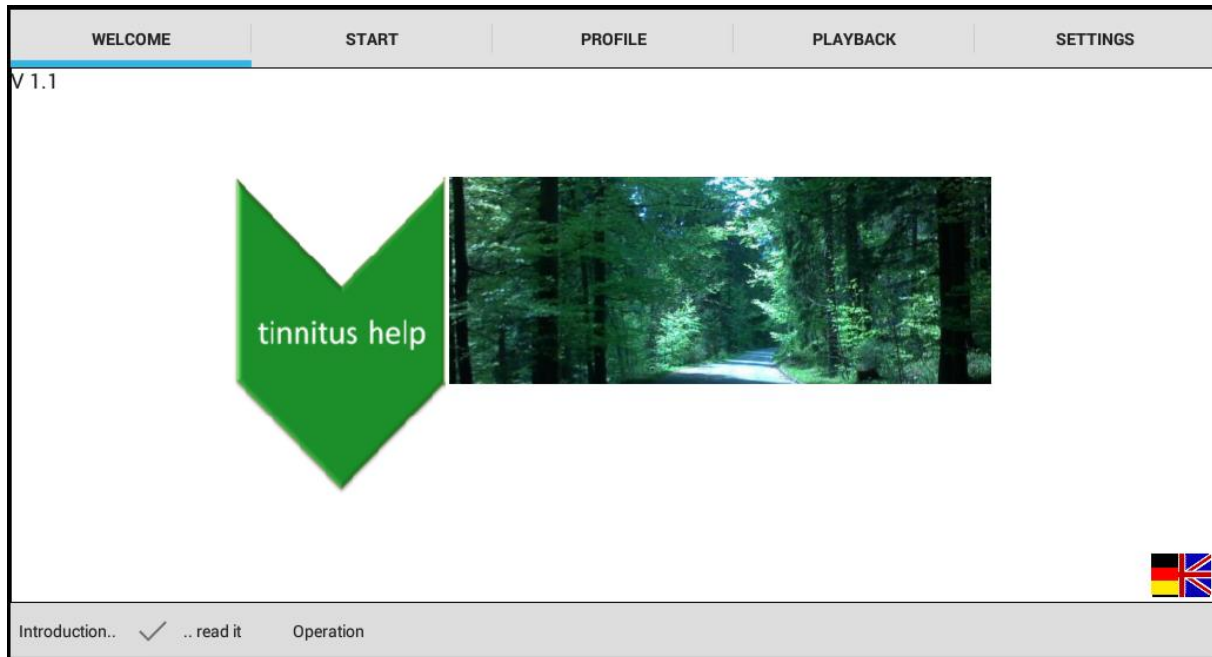


Figure 3-2: View „Welcome“ after start of program

There are four buttons:

- Selection of the language English / German
- Introduction
- „I have read the introduction.“
- Operation



The two **flags** serve for selecting the language. Depending on the selected language the buttons show an accordant caption. Pushing one of the flags lets the language toggle. It does not matter which flag is pushed.

Pressing the button **“Introduction”** opens the introduction text. A system installed internet browser opens again and shows the text in the PDF-format. An internet connection is not required.

After reading the introduction and confirming the attention pressing the button **“read it”** is required. This confirmation is saved automatically.

Pressing the button **“Operation”** shows this documentation. A system installed internet browser opens and shows this text in the PDF-format. An internet connection is not required.

3.3 Start

The view „Start“ is the starting point to all functions as the following figure indicates:

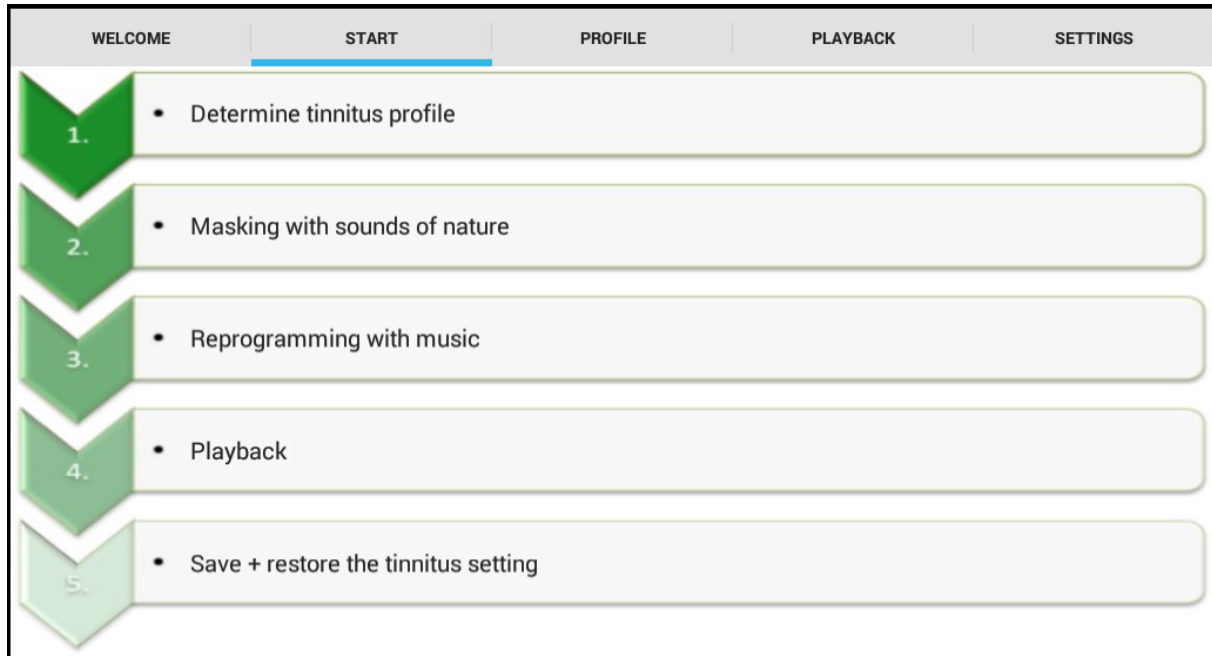


Figure 3-3: View „Start“

Via the view „Start“ one gets to the program sections:

- 1. Detection of the tinnitus profile, beginning with [Profile -> Tinnitus Li. - Tinnitus-profile detection left](#)
- 2. [Masking with sounds of nature](#)
- 3. [Reprogramming with music](#)
- 4. Playback of the mix and export, see [Playback + Export](#)
- 5. Save and restore the tinnitus setting, see [Settings](#)

An alternative to this view „Start“ is the selection of the wished program section via the program’s tabs, see Figure 3-1 „[The program’s functions in detail](#)“.

3.4 Profile -> Tinnitus Li. – Tinnitus-profile detection left

With the view „Tinnitus Li.“ the pathway through the setting of **tinnitus help** begins. First of all the tinnitus profile of an eventually perceived tone has to be created for the left ear, see the following figure:

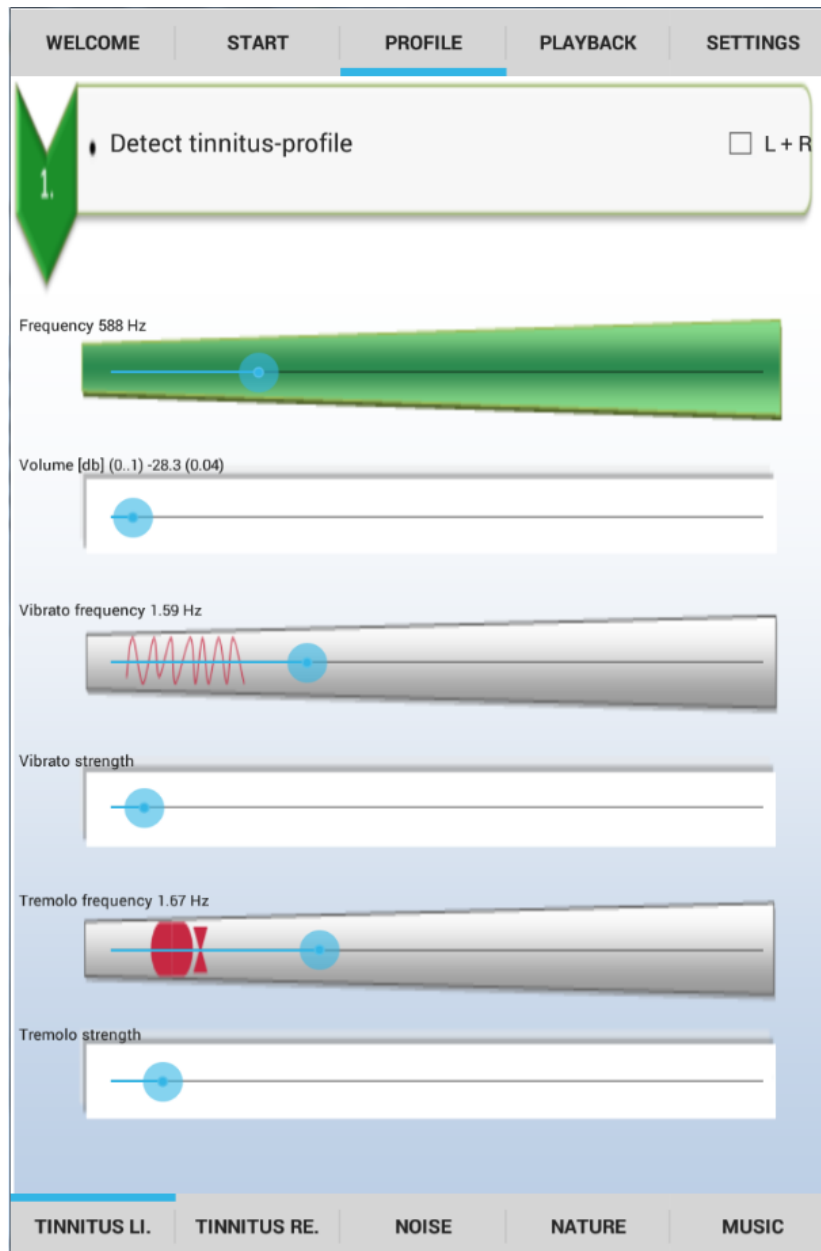


Figure 3-4: View „Tinnitus Li.“

From top to the bottom there are six buttons:

- Frequency
- Volume
- Vibrato frequency

- Vibrato strength
- Tremolo frequency
- Tremolo strength

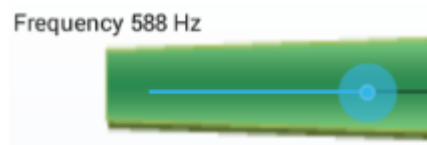
They shall be explained in the following.

3.4.1 Tinnitus frequency

Starting point is the generation of an initially constant tone that corresponds to the perceived tone as far as possible. For this two controls are available.

Frequency

The tinnitus frequency may be controlled via the slider



Volume

The volume may be controlled via the slider



3.4.2 Vibrato/Tremolo

Many patients perceive a tinnitus tone that is not constant but varies in its frequency and or volume. For emulation of a frequency variation (vibrato) as well as a volume variation (tremolo) there are 2 sliders each available.

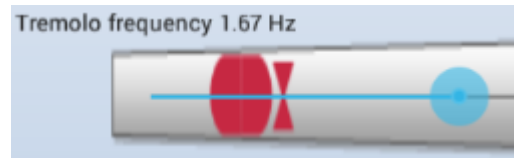
The **Vibrato frequency** is set via the slider



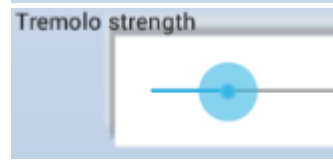
and the **Vibrato strength** via the slider



The **Tremolo frequency** is set via the slider



and the **Tremolo strength** via the slider



3.5 Profile -> Tinnitus Li. – Tinnitus-profile detection right

After an eventually perceived tinnitus tone is determined for the left ear the determination for the right ear follows in the same manner, see the following figure:

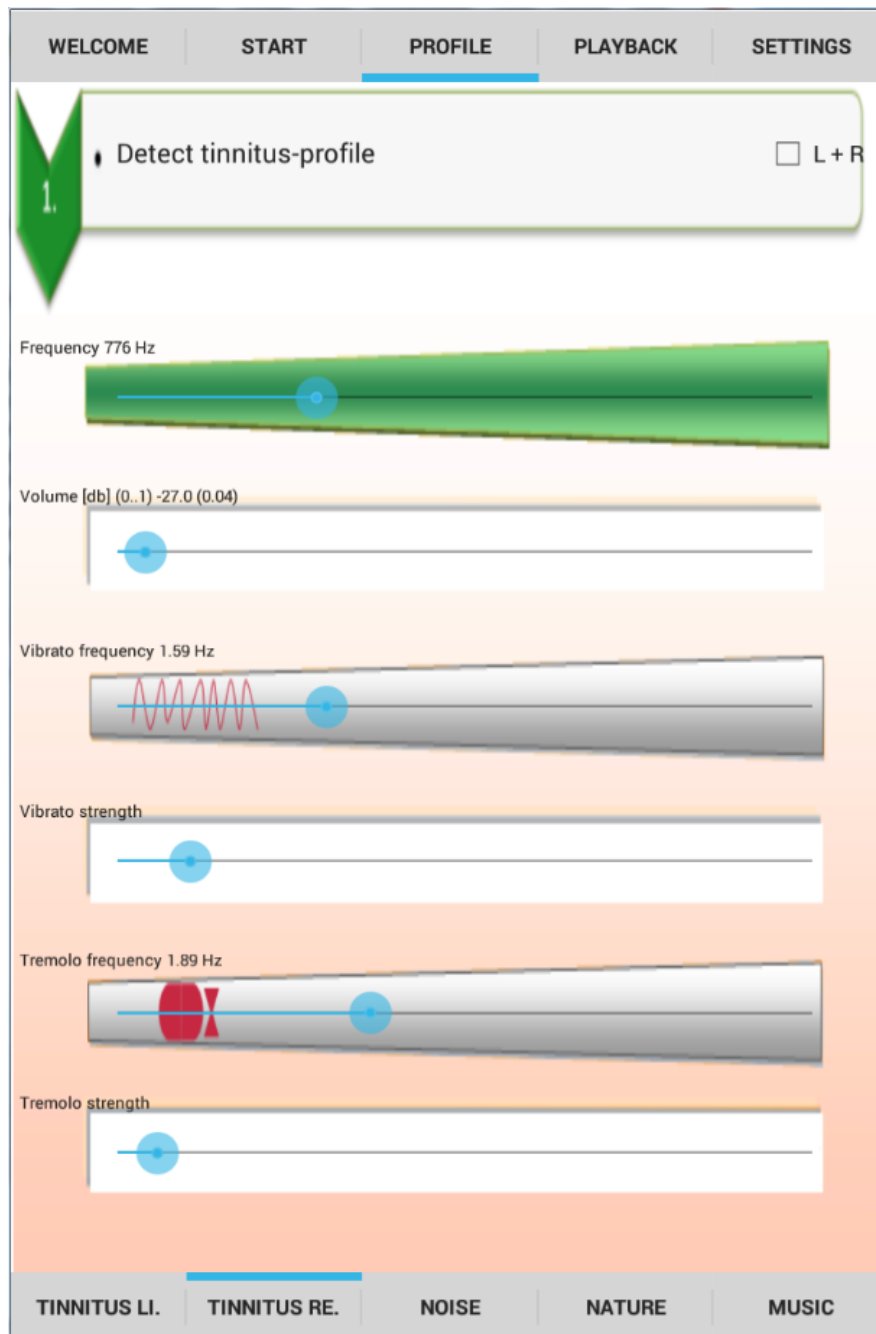


Figure 3-5: View „Tinnitus Re“

The operation does not differ from the left ear. For this reason it shall be pointed to the according section [Profile -> Tinnitus Li. – Tinnitus-profile detection left](#)

3.6 Noise tinnitus-profile

A lot of patients perceive e.g. cricket-, or cicada-like noises instead of tinnitus tones or additionally to them. Such noises can be added to the tinnitus profile with the following module:

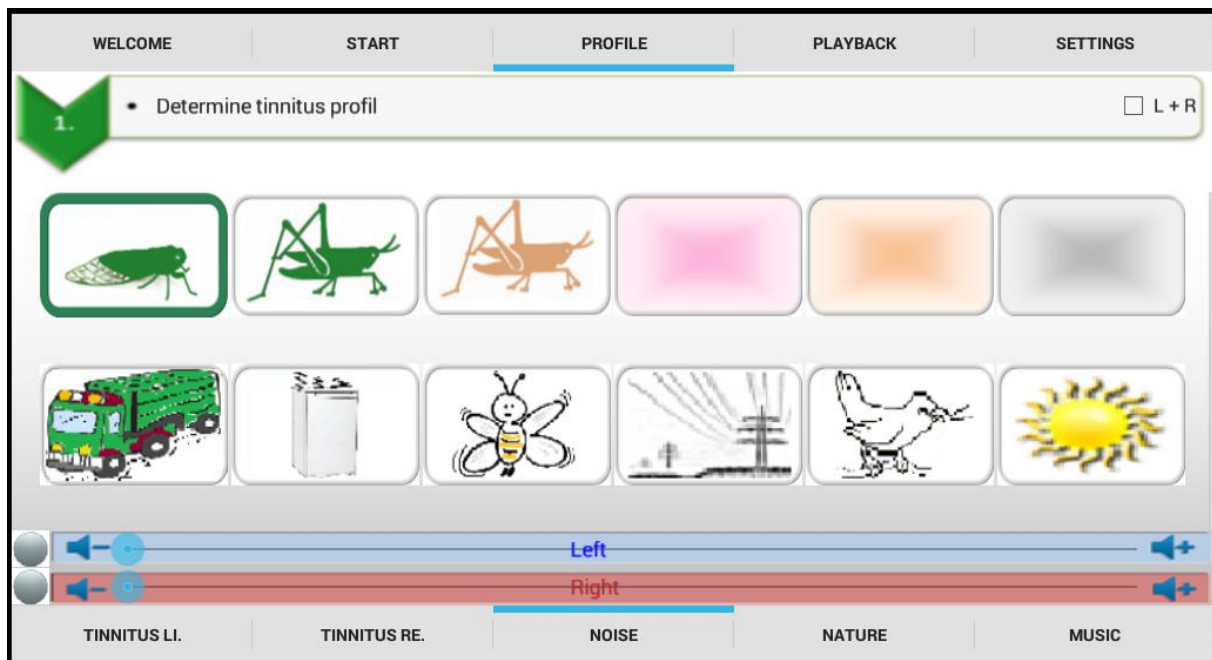


Figure 3-6: View „Noise – tinnitus profile“

From top to the bottom there are the following controls:

- **Twelve noise sounds:** the active sound has a green border line.
- **Volume slider for left and right:** the setting affects the active sound.
- **On/Off-switch and On/Off-indicator for left and right.** Left from the

the volume sliders there is a green ● or grey ● point. The color green indicates that the active noise takes part in the mix. The point looks grey if the noise is not contained in the mix.

The point becomes green if the volume for this noise is set to higher than zero. It turns to grey if the volume slider is set to zero (quiet).

A noise which volume is not zero – and therefore takes part in the mix – can be switched off without changing the volume simply by pressing the green point. The noise can be reactivated by a further pressing on the point.

3.7 Masking with sounds of nature

Sounds of nature are very relaxing for most people. **Tinnitus help** uses this effect for the treatment of tinnitus. The program offers a multisided range of sounds of nature. They can be added to the mix via the following program module:

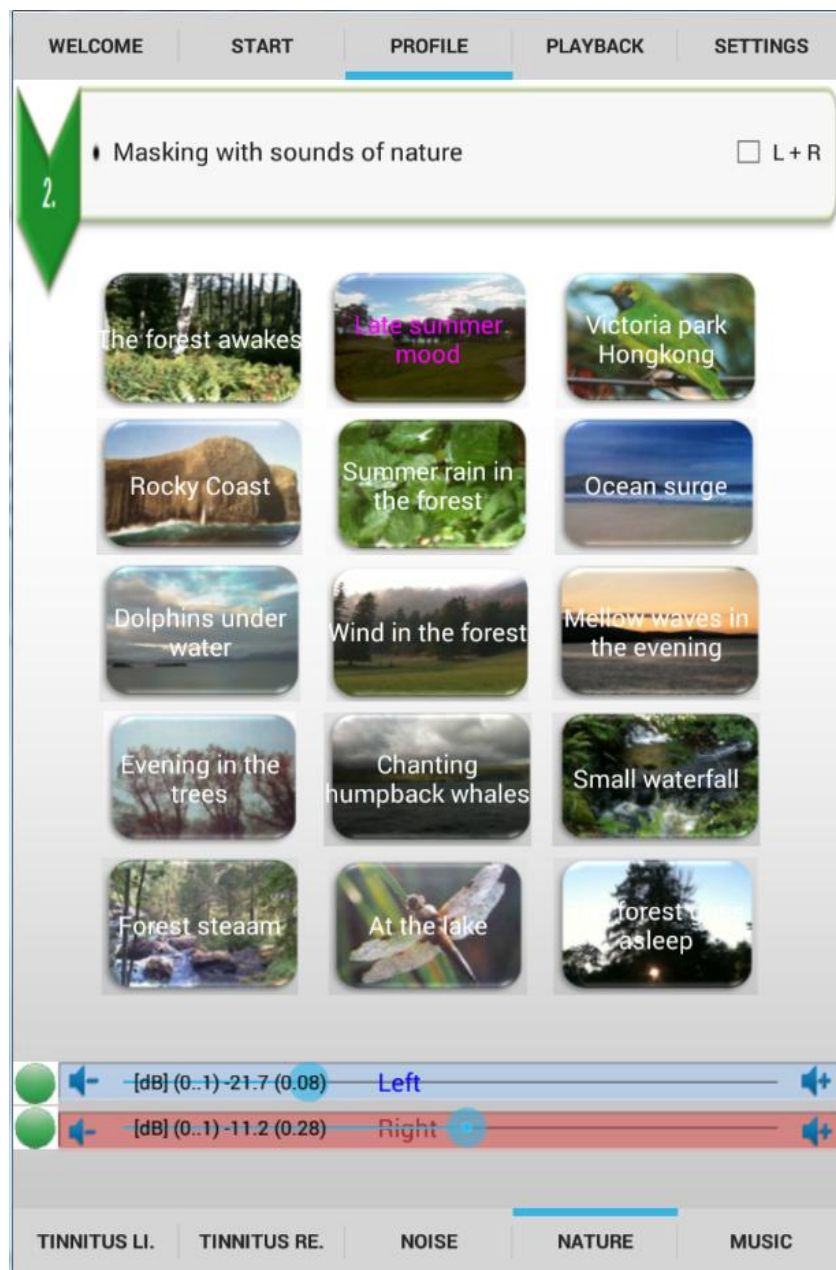


Figure 3-7: View „Masking with sounds of nature“


From top to the bottom there are the following controls:

- 15 sound of nature symbols: Choose a sound of nature ...

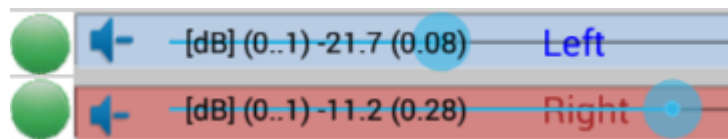
- On/Off-switch and On/Off-indicator for left and right channel
- Volume slider for left and right channel


15 sound of nature symbols: Choose a sound of nature ...



A click on a desired sound of nature eg.  loads it in the memory and plays it back. The loading progress is indicated via the progress bar, see [Common controls](#). A magenta coloured text indicates the selected sound of nature.

Volume slider for left and right channel



By means of the sliders  one controls the volume for each ear.

On/Off-switch and On/Off-indicator for left and right

Left from each slider there is a green  or grey  point. The color green indicates that the sound of nature is enclosed in the mix. The point looks grey if the sound is not hearable in the mix.

The point becomes green if the volume is set to higher then zero. It turns to grey if the volume slider is set to zero (quiet).

If the volume is not zero – and therefore the sound takes part in the mix – it can be switched off without changing the volume simply by pressing the green point. The sound can be reactivated by a further pressing on the point.

3.8 Reprogramming with music

The active listening to relaxing music coming from natural instruments is very important for the treatment of tinnitus. This leads to an exaltation of metabolism processes in the brain, the auditory cortex is stimulated, the brain is reprogrammed, the tinnitus takes a back seat and the auditory perception is simultaneously enhanced.

Tinnitus help offers **several pieces of music**, which are composed and produced especially for the treatment of tinnitus. They have proved themselves in therapeutic practice and it is highly recommended to test them for your own therapy.

Some persons prefer music from their own library. For this **tinnitus help** offers the possibility to add a piece of music to a tinnitus profile setting. But please be careful about your choice of music: It should be really relaxing and if possible not produced synthetically.

The view of this program module shows the following figure:

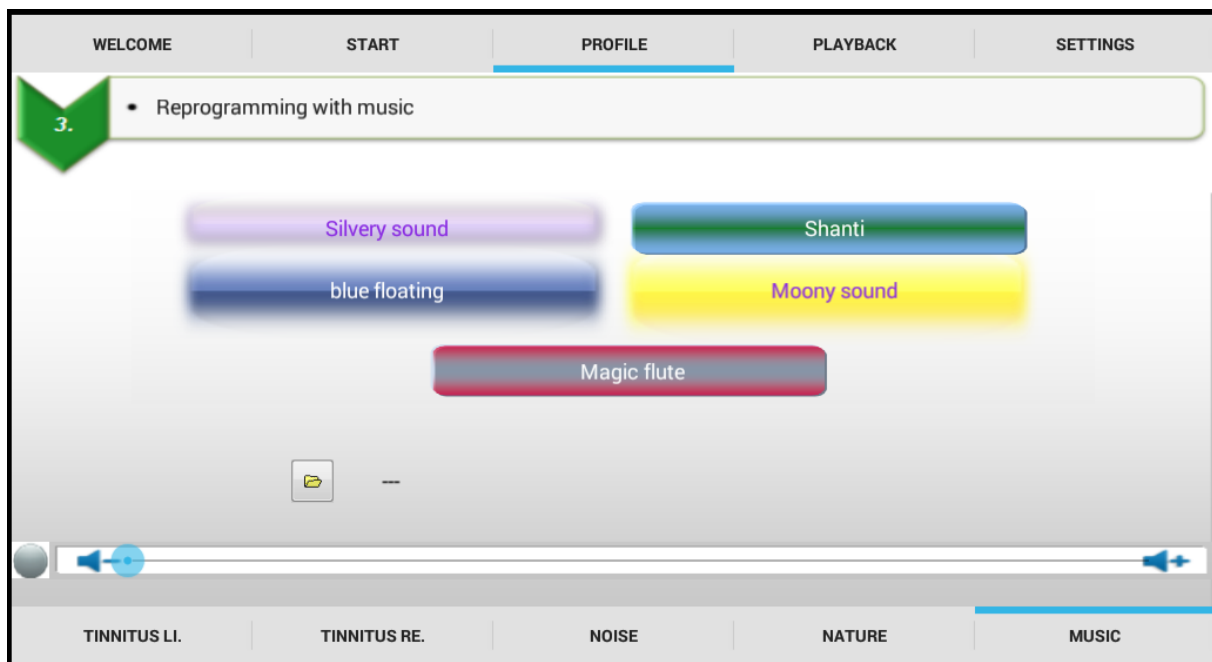


Figure 3-8: View „Reprogramming with music“

From top to the bottom there are the following controls:

- Selection of one of 5 pieces of music
- File-open-dialogue to choose music from the library
- On/Off-switch and On/Off-indicator
- Volume slider

They shall be explained now.

Selection of one of 5 pieces of music



The view's region offers the possibility to select a piece of music from the music library of **tinnitus help**. The magenta coloured caption indicates the chosen piece.

File-open-dialogue to choose music from the PC

Instead of music from **tinnitus help's** music library this dialogue





can access music from the personal library. The file name appears at the right of this button.

Volume slider



The slider controls the volume.

On/Off-switch and On/Off-indicator

Left from the volume slider there is a green  or grey  point. The color green indicates that music takes part in the mix. The point looks grey if the music is not hearable in the mix.

The point becomes green if the volume is set to higher than zero. It turns to grey if the volume slider is set to zero (quiet).

If the volume is not zero – and therefore the sound takes part in the mix – it can be switched off without changing the volume simply by pressing the green point. The sound can be reactivated by a further pressing on the point.

3.9 Playback + Export

After the creation of a tinnitus profile you can start with your individual treatment.

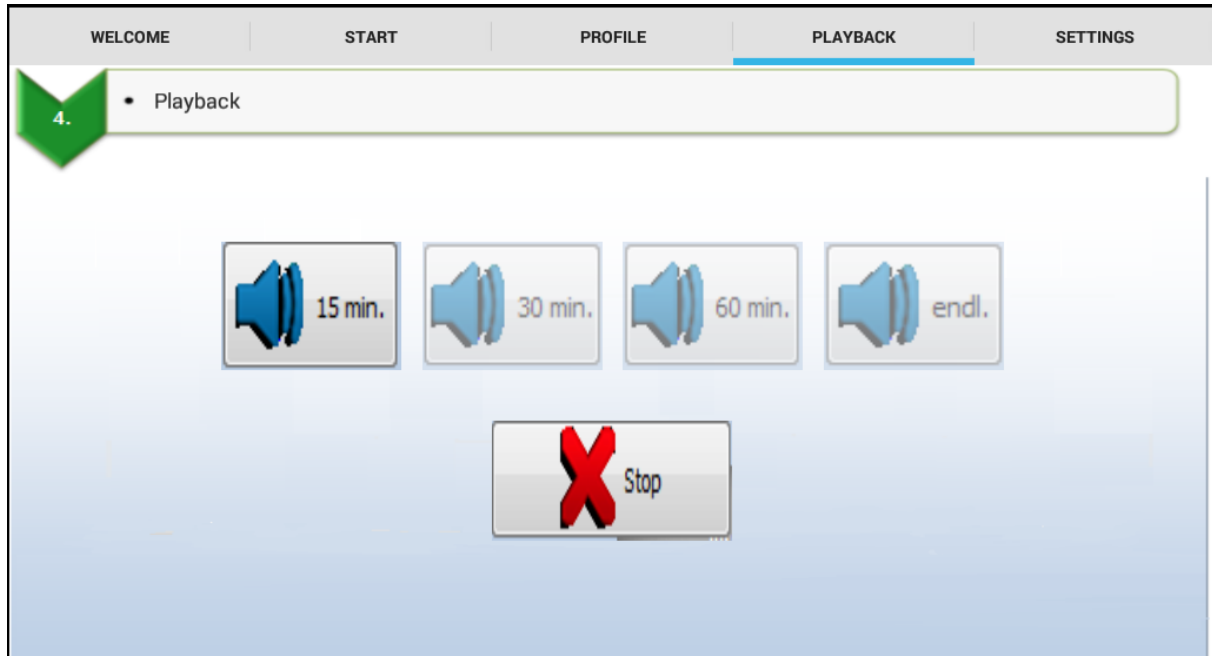
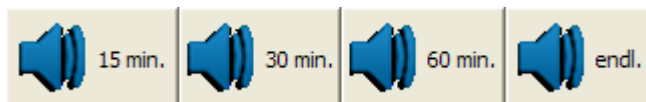


Figure 3-9: View „Playback“

Choose a playback duration with the buttons



and stop playback before the automatic ending with



3.10 Settings

The view „Settings“ shows all ingredients of the actual profile. Furthermore several profiles can be saved and loaded, see the following figure:

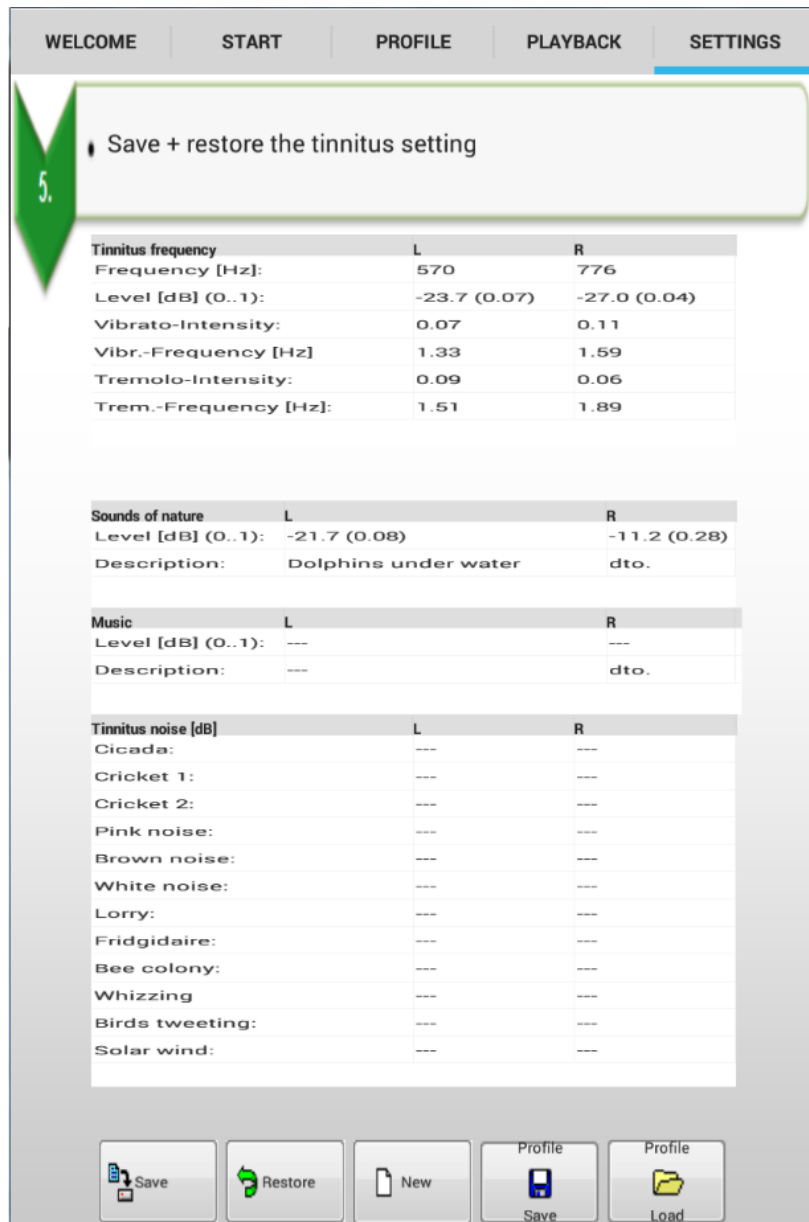


Figure 3-10: View „Settings“


From top to the bottom there are the following controls:

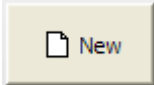
- Tables „Tinnitus-frequency“, „Sounds of nature“, „Music“, „Tinnitus noise“
- Save
- Restore
- New

- Profile Save
- Profile Load


The tables concentrate all settings of the program views.

A complete program setting can be written via the button  and

restored via the button . This allows free experimentation with different settings at any time.

The button  deletes all settings and brings the profile them to a starting position. Since all volumes are set to zero the program remains quiet, but the actual profile is not overwritten. This only happens through saving the profile, see above. An original setting can be restored any time via the button "Restore".

To use several profile settings there are the following two buttons:

- The button  opens a save-profile-dialogue to choose a profile storage place.

- Such profile can be loaded via the button .

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