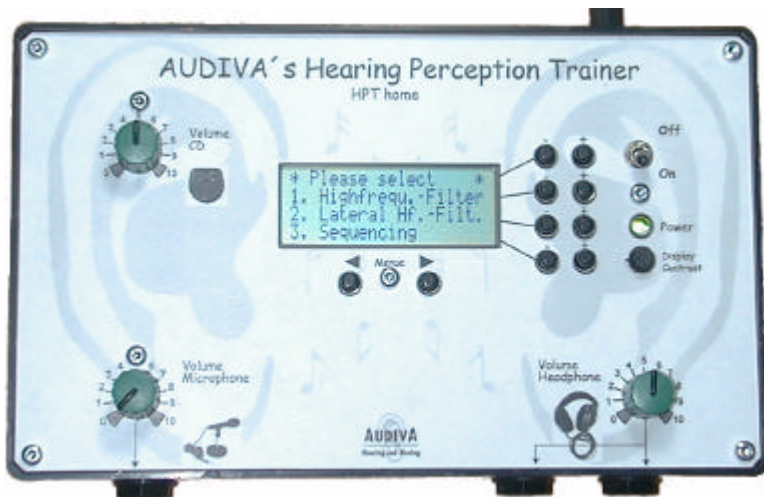


AUDIVA

Hearing and Moving

User manual

Hearing Perception Trainer HPT home



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Introduction:

Possibly your therapist has recommended you the HPT-home and is happy to help you use it optimally with a training plan. If this is not the case, we suggest you to use the values of a general training plan (Phase A and Phase B on the yellow paper).

If there are any problems or defects with the HPT-home, please feel free to call us with any further questions.

Anyhow, we ask you to read these instructions carefully.

Instructions: How to train as recommended by Audiva:

Choosing the level (page7):

Start with level 1 during the first week and increase it each week (e.g. week 6= level 6).

Choosing which part to do (page7):

The training programme is designed such that a certain part corresponds to a time of day; morning, afternoon or evening.

If you can only manage to do the training once a day, do the whole level (all parts).

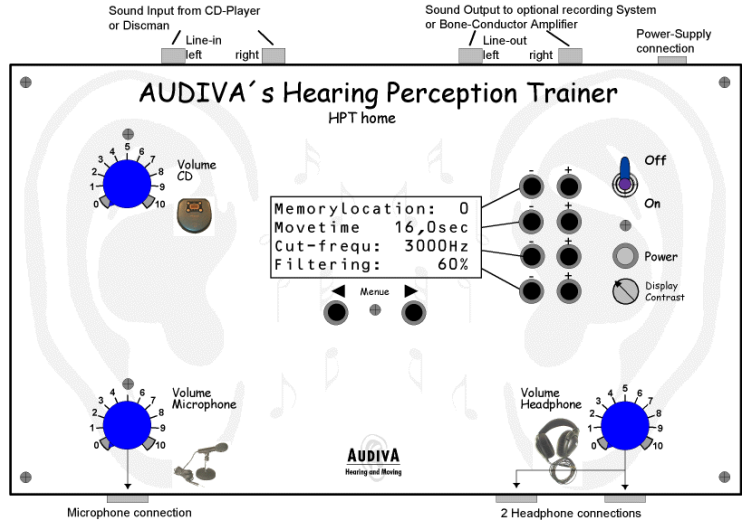
Any non-completed level at the end of training should be started again.

There is no need to meet the time limit of each level. You can always end it earlier.

Further information is available in the training plan (yellow paper).

Make sure you listen to Baroque or Mozart music (Phase A). In Phase B you can add reading texts from AUDIVA or others. Alternatively, read stories out aloud by using the microphone. The patient always wears the headphones in every phase.

Installation and connection:



1. Plug in the power pack provided.
2. Turn the Ein-Aus (On-Off) switch 'On'. The green lights under the switch will show immediately. Shortly after that you will hear a short tune.
3. Now you can connect a CD-player or Discman via the provided cable to the Discman/CD-player Line-in plugs in the back. Red is for right and black for left.
4. Afterwards you can connect the headphone. Plug them into the connector with the appropriate symbol in the front. If you want to connect two headphones, make sure they are of the same type, and that they are properly connected.
5. Connecting the microphone (optional). On the left hand side you can connect a microphone. If the microphone is not in use, turn the switch on "0".

When to use:

Audiva's auditory perception training programme can be used for Auditory Perception Disorder Auditory Agnosia, Speech Disorder, Dyslexia, Aphasia, Movement Disorders, Deafness, Learning Disabilities, Hyperacusis, Autism, MCD with Hyperactivity, Attention Deficit Disorder ADD, Tinnitus and general concentration problems. Additionally dictation skills, vocabulary repetition and learning foreign languages, voice control and self awareness will be enhanced.

Attention:

- Use harmonic music from Baroque composers (e.g. Händel, Vivaldi, Haydn, Bach...), alternatively Mozart is suitable. Besides this, natural sounds (e.g. water) are very useful. Artificial, aggressive sounds can result in vegetative disorders (e.g. headache) and have psychologically and/or physical side effects.
- Use a low volume, to avoid damaging the ear. High tones will be effective with low volume levels.
- If the patient is neurologically hypersensitive, special considerations are necessary. The training should be especially sensitive to people who have had epilepsy. If the patient does suffers from epilepsy they should consult their GP first because it is

possible that epileptic fits can be induced by visual overstimulation. It is in the patients best interests to follow these instructions. It is unlikely that auditory overstimulation will cause an epileptic fit (no case of this is known so far).

- By placing the headphones on after you have turned the HPT-home on, you can avoid the clicking noise produced.
- You must only use the HPT-home for the incapacities mentioned above.

Functions of the HPT-home

- Analogue 24db stereo-highpassfilter, providing a large bandwidth up to 100 kHz and no converting loss.
- Digitally adjustable lateralisation via moving-filter -technology.
- 'Move time' is digitally adjustable from one ear to the other with a time scale of 2.0-25.5sec.
- 'Hold time' is relative to 'move time' from 0-100% digitally adjustable.
- Adjustable dosage of filtering: 0...100 %
- Microphone connection with volume control.
- Direct connection plugs for CD-player or Discman
- Two headphone plugs with adjustable volume switch
- Lockable settings to prevent unwanted changes
- The 6 Level programmes are splitted into 4 parts corresponding to the times of the day: 'voll' (all), 'morgends' (morning), 'mittags' (afternoon) and 'abends' (evening). The daily training can so be divided into shorter training times.

Contents:

HPT-home, power pack, instructions, 1 x stereo cable (cinch) on Discman (3.5 mm jack plug)

Accessories:

1 x Discman/ CD-player

1 x Electretmicrophone with battery EM 103 and 1 x table stand MS 1 for the microphone

1-2 x Headphones of good quality (HD 570 or HDK 66)

Phase A: Baroque- and Mozartmusic, as mentioned above (we suggest the Set GAM 301)

Phase B: Text material and exercising material for phonological awareness, audio books, 'learning to read' helps etc....

Accessories for bone conduction usage: 1x bone conductor S 2341 and 1x bone conductor amplifier EHT 26

Attention:

When locked mode is activated, HPT-home will skip the menu and start directly with the time chosen. After 15sec the hearing perception training will start automatically.

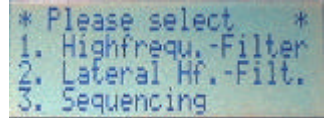
During this 15 sec period, you can still choose the whole level; part 1 (morning) etc....

After this time all switches will be locked and the training begins.

To unlock the HPT-home, keep the lowest editor button (+) pressed when turning the HPT one. A message in the display will confirm that you deactivated the locker.

Main menu display:

After turning the HPT-home on, you can choose of the following three options:



```
* Please select *
1. Highfrequ.-Filter
2. Laferal Hf.-Filt.
3. Sequencing
```

1. High frequency-filter

The high frequency filter should only be used with guidance from a therapist for home usage. This mode is meant to be used for the training session in the logopedic consultation.

2. Lateral Highfrequency filter

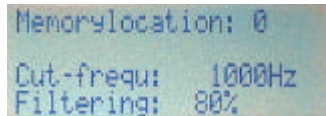
Lateral Highfrequency filtering can be used successfully in hometraining. The settings are provided in the training plan. The table provided gives the values for 6 weeks. They will be adjusted at the beginning of the training.

3. Sequencing

This mode is identical to lateral highfrequency filtering. The values are ready-programmed and will change automatically during training. Choose one level and press 'start'. Extra settings of this mode are as follows: gradual increase in effectiveness and more variation during the hearing time due to changing settings.

1. MODE High Frequency-Filter:

In this mode the signal doesn't move between both ears. You are working with high frequency training.



```
Memorylocation: 0
Cut-frequ: 1000Hz
Filtering: 80%
```

Memory Location:

The HPT will memorize your settings in 10 places (0-9). This provides the possibility to program values for different training situations and use them again later.

Please note:

The memory locations 0-9 in are ONLY saved if "Expert mode" is switched on (page8). This is a feature that protects you from unwanted changes in the settings.

Cut frequency:

Adjustable from 1000- 13750 Hz

Filtering:

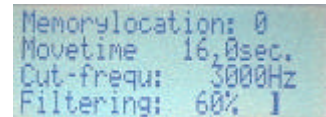
from 0%- 100% (0% equals no filtering= normal sound, and 100% equals maximal filtering= the tones lying under the cut-frequency will be cut off)

Back:

With menu < the previous display returns (main menu)

2. Mode: Lateral High Frequency Filtering

In this mode the tone colour of the signal moves within both ears. You are working with lateralized high frequency filtering (moving filter technology).



```
Memorylocations: 0
Movetime 16.0sec.
Cut-frequ: 3000Hz
Filtering: 60%
```

Memory location:

The HPT home will memorize your settings in 10 places (0-9). This enables you to put down values for different training situations and use them again.

Please note:

The memory locations 0-9 in are ONLY saved if "Expert mode" is switched on (page8). This is a feature that protects you from unwanted changes in the settings.

Move Time:

Adjustable from 2.0-25.5 sec from one ear to the other.

The holding time is proportional to the move time (25%) and does not need to be set. In case you want to change it anyway, see page9.

Cut Frequency:

Adjustable from 1000-13750 Hz, low parts will be filtered out and high ones increased.

To make the lateralization clearer to hear, you have to set the values above 3000 Hz (lowest border 1000 Hz).

Filter:

Adjustable from 0% - 100%. This is the most important setting determining the effectiveness of all 2 previous settings on the hearing. When you choose filtering 0%, no change can be heard. 100% of filtering on the other hand results in maximum lateral high frequency filtering. To be able to hear the lateral movement clearly, the cut frequency has to be at least 3000 Hz. Please note the setting advices described below¹.

Back:

with menu < the previous display returns (main menu)

Lateral movement stop:

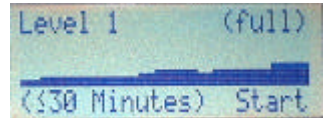
With menu > the movement is stopped and the display shows 'stopped'.

Turning the lateral movement back on:

To turn the movement back on press menu >.

3. Mode: Sequencing

In this window you can choose a level (sequencing) that will play a sequence of single settings one after another.

**Choosing the level:**

Start with level 1 in the first week and increase the level (up to 6 weeks).

Choosing parts of the level (up to level 6):

Chose 'morning', 'afternoon' or 'evening'.

In case the hearing perception training is only possible once a day, choose the whole level. If the training has to be aborted for some reason start again with the chosen part of full level. There is no need to meet the time limit of each level. You can always quit earlier. Further information is available in the training plan (yellow paper).

Level 1-11:

With +/- you change the level and the corresponding effectiveness can be seen graphically. The higher the "peaks" are, the stronger the effect. Level 1 has the lowest and level 6 the highest effect.

At the beginning of the hearing perception training, you choose level 1 and should then increase it up to level 6. (warning: if you feel uncomfortable at any point, you can go back to a lower level or turn the volume of the headphones down). Level 7.11 contain further sequences.

1. Helpful tips:

The aim is to make the lateralization nearly impossible to hear at the beginning of the training, week 1. With further training the settings for the weeks will increase the lateralization.

In case you want to increase this effect, see page9.

(... Minutes)/start:

On the left side of the display the HPT informs you about the maximal length of the chosen level or its parts.

In order to begin with the hearing perception training start the previously chosen level using the '+' button (start). A little arrow will run slowly from left to right. When it arrived on the right side, the training is finished.

Back:

With menu < you can end the hearing perception training: 'end of session'

Pause the hearing perception training:

With menu > the training is stopped and the display shows 'stopped'.

Resuming the hearing perception training:

To turn the training back on press menu > once.

Locked Mode:

In case you want to use the HPT later on without the level being changed, you can activate the locked mode. You do this by holding the lowest editor button '+' when turning the HPT on until the message about the locked mode is displayed.

The locked mode prevents other modes or levels to be used. Only the selected level (and its parts) can be used and the training session can be started and ended. When turning it on in the locked mode, the HPT will automatically go to the chosen level.

This ensures that a patient who is using the HPT at home, only uses the level the therapist chose.

To unlock the HPT-home, keep the lowest editor button (+) pressed when turning the HPT on. A message in the display will confirm that you deactivated the locker.

Expert mode:

You only need to use this mode when you want to define your own sequences, store values or change basic settings.

Saving your own settings is possible in level 7, 8, 9, 10 and 11, Storing is done automatically.

Level 1-6 settings are factory presets and it is not possible to alter them.

**Expert mode 1:
Are you sure?**

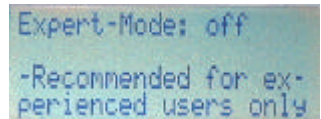
Only when the expert mode is 'on' can you go to another window. Chose 'on' to create your own levels. This possibility is provided for advanced users. When 'on' the actual values of each step are displayed as text (like in 2nd mode) instead of graphics during the training session.

It is best to restrict usage of this mode for those who are experienced.

Attention: your changes will remain after turning the HPT off.

Begin the expert mode:

With menu > you change to the window basic setting

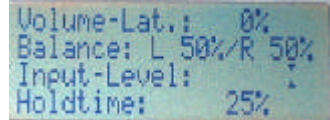


Expert mode 2: Basic settings

Level lateralization:

The efficiency of the HPT home is due to its moving-filter technology, that is usually used without level lateralization. Nevertheless you can add a certain amount of this.

Basic setting: 0%



```
Volume-Lat.: 0%
Balance: L 50%/R 50%
Input-Level: *
Holdtime: 25%
```

Balance:

Here you can change the volume proportion of the stereo-channels. This can be relevant to compensate a peripheral weakness of one ear.

Basic setting: 50% / 50%

Input level:

The level should move to the markers.

When it goes beyond these markers, a little headphone sign with a blinking exclamation mark (!) will appear. In this case either CD player is too loud (turn it back with the line-in buttons) or the microphone is too loud (turn the volume down or put the microphone further away from your mouth).

Hold time:

The hold time describes the time the tone actually remains on one ear before moving back to the other one. This time depends on the move time.

Here you can change the proportion:

If the hold time is on 25%, this means at a move time of 10 sec there's 2.5 sec hold time.

Basic setting: 25%

Back:

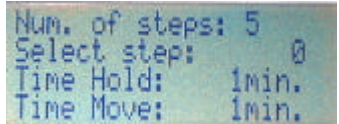
With menu < you can change to the previous window.

Expert mode 3:

With menu > you can configure your own user levels:

Expert mode 3: Configure your own user levels:

You should understand that each level consists of steps. It's up to you to define the number of steps and on which step you are currently working. You assign each step a time duration for the time hold (hold means settings won't change) and the time move (settings change to next step). Step 0 is always the setting the hearing perception training starts with.



```
Num. of steps: 5
Select step: 0
Time Hold: 1min.
Time Move: 1min.
```

Number of steps:

Adjustable from 1-9. Choose the number of steps that the level should contain.

Adjust steps:

Adjustable from 0-9. Decide which step should be adjusted. It is advisable to start with 0 at the beginning of the hearing perception training.

Time hold:

Adjustable from 0-10 min. Decide how long the setting of the step should stay constant (no change) (0 means immediate change to the next step).

Time move:

Adjustable 1-10 min. Decide how long the time interval to change from the actual to the next step should be. If the move time is high, the values will change very slowly, if it's

low, the values change fast. Therefore it is important these settings differ. This can be adjusted in the next window.

Back:

With menu < you can change to the previous window.

Expert mode 3:

With menu > you can go to expert mode 4:

**Expert mode 4:
Assign values to
the user level:**

In this window you assign settings for the step you chose to define. It is similar to the 2. mode on page6.

Select step

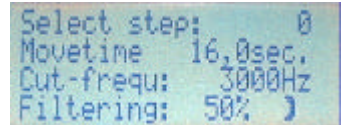
See above at move time, page6.

Cut frequency

See page6

Filtering:

See page6



```
Select step: 0
Movetime 16,0sec.
Cut-frequ: 3000Hz
Filtering: 50% )
```

All values are only valid for the respective step. The hearing perception training always starts with step 0. To test the settings, go back to window 3rd mode and choose start.

Back:

With menu < you can change to the previous window time setting.

Getting used to the HPT home:

It is required that you know the installation process described above and Modes 1 and 2. **The HPT home is installed meaning the CD-player or discman is plugged in, the headphone and if appropriate the microphone are connected to the HPT.**
Initial Settings: All knobs to 0 (far left).

Basic settings:

Start the HPT and the CD player with music. (the green light 'power' should show constantly now). Put the headphones on. Choose mode 1 high frequency filtering (see page6) Turn the volume knobs 'Lautstärke line-in' to the right, till the headphone signal and the exclamation mark '!' show up. Then turn it to the left till the symbols do not show up any longer (you can adjust the volume at any time later).

- if the symbol does not show up, although the knob is turned to the far right, you have to increase the volume on your discman.
- if the symbol does not show up it can also be due to a low passage of the music of your CD.

1. Mode high frequency filter:

Adjust the cut frequency to 4000Hz and filtering to 0%.

Put on the headphone and turn the volume knob for headphones to the right till you can hear the music on both ears, you should find that the music sounds normal.

Now you can change the filtering slowly till 100%. Thereby you will hear that the sound becomes increasingly higher (both ears the same). Adjust the filter to a comfortable level.

Values between 60-90% filtering are usual settings (slowly getting used to high frequency filtering). To get a hearing impression and to get to know the settings you can try varying the cut frequency.

Testing different cut frequencies:

Turn the cut frequency from 4000 to 1000 Hz. Now you should be able to hear that the signal has become louder in the lowest cut frequency for it contains more low frequencies. The higher you turn the frequency, the lower and finer the signal becomes. You can, depending on peripheral hearing abilities, increase the volume in the high frequency area.

The most often used frequency to further the differentiation lies between 1KHz and 6 KHz.

- Exercises for the vocal area can be: cut frequency 1-2KHz
- Exercises in the area of phoneme discrimination (b,p,d,t,g,k): cut frequency 3-4 kHz.
- Exercises in the area of the sibilant: 4-6 kHz

Now change to mode 2 (page6):

2. mode: Lateral frequency operation

Set the 'move time' to 16.0 sec, the cut frequency to 4000Hz and filter to 0%.

You will notice that the music should sound absolutely normal.

Now you turn the filtering slowly till 100%.

You can hear that the tone colour of the music moves between left and right ear. The higher you adjust the filtering, the higher the training effect will be. Adjust the high frequency (filtering) to a level comfortable to your ears.

Values from 60-90% are usual settings for the beginning of the hearing perception training.

You can vary the cut frequency and the 'move time' to acquire impression of what to expect and to get to know the different settings.

The 'move time' settings will become gradually faster in hearing perception training, but should never be faster than comfortable to the hearer.

Starting points are always slow movements (move time 16-25sec).

Using the microphone:

Turn the cut frequency back to 3000Hz and the filtering to 100%. When turning the button 'volume line in' to 0, the music will fade.

Take the microphone and turn it on (in case it has a switch, as our EM103).

Turn the knob of the microphone slowly to the right while talking with normally loud voice in it.

The distance mouth-microphone should be about 2-3 inches. The feedback of your voice should be clearly audible. Then the volume is well adjusted. Try the feedback with different cut frequencies.

Attention/Warning message:

- if the headphone signal and the '!' appear in the display, this is a warning for tone distortion. It can be caused by too loud microphone signals. Turn the knob (volume) 'Mikrophon' down or hold the microphone further away from your mouth.
- When using a microphone blowing into it or high speaking dynamics can result in a short flashing of the warning, this is negligible.

Listening CD and talking:

- when using the CD and microphone at the same time, eventually the volume of the Line in switch has to be reduced so that you can hear the microphone well enough. When the microphone is no longer used turn the volume back to 0 to omit ambient noises.

In the high frequency operation the microphone is always used for both ears equally.

In the lateral frequency operation it moves (as does the music). Make sure you switch the microphone off when it is not in use.

Further tips for using the microphone:

- use for the HPT home only qualitative Electret Condensor-Microphones, e.g. the EM 103. You can also use any other microphone types as far as they submit high-frequency tones clearly. For best results the Electret microphones as suggested, for they have a clear quality of reproduction.
- the microphone needs a 6.3mm jack plug. Otherwise you can buy adapters in specialized trades (only use gilded ones).
- the plug always has to be fully plugged in (to the limit).
- microphone cables that are too long can cause distortions, especially if the cable is lying around. We suggest to bind the cable together.
- For a save standing on the table and free hands when speaking, microphone table stands or floor stands are useful.

Using Headphones:

Connect the HPT home only to high quality headphones with clear reproduction of high frequencies.

Using 2 headphones:

If using 2 headphones they should be of the same type to avoid different volume division.

Volume:

Attention/Warning: If high tones are turned on too loud, this can result in hearing damage. You should only increase the headphone volume as much as necessary. High frequencies are already effective with low, just audible levels of volume.

Further tips to headphones:

- the distortion factor is a technical value that determines the quality of your headphones. This should lie under 1%. If it is higher or not displayed at all, you should not use that pair of headphones. Appropriate headphones can be ordered at AUDIVA.
- we recommend the K 66 of AKG (order no: HDK 66) or a Sennheiser headphone from the series HD5xx (order no.: HD 570) or a similar type, available in our delivery program.
- headphones need to have a 6.3mm jack plug. Otherwise you can buy an adapter in a specialized trade.
- the plug always has to be plugged in to the limit
- you should only use stereo-adapters (usually with 2 black isolation rings).

Bone conductors:

The high frequency signal can be submitted via a bone conductor to certain body points. For the hearing perception trainings, the bone conductor is usually integrated in the middle of the headphone's head-band (KHS 250), so that the vibrotactile sound would be perceived on both ears via bone-connection.

Bone conductors only operate with an additional amplifier. The amplifier (EHT 26) is directly connected to the Line-out plugs of the HPT home and provides the possibility to connect one or two bone conduction (available in our assortment). Those can be integrated in the head-band of the headphone, so that a simultaneous training with air- and bone conduction becomes possible. We can offer you an appropriate combination of headphone and bone conductors.

We recommend installation on a board (WBX) when an additional device (e.g. EHT 26) is added. In combination with a discman you can create your own hearing perception training combination.

Practice USE:

Using the HPT home, you can filter any text played back into it in a way that consonants and sibilants are left out. Simultaneous work with the microphone enables acoustic feedback of the patient. The feedback should and could proceed via a simple reading or speaking exercise.

It can happen that a patient cannot perceive a high frequency filtered signal at first- or only at very high volumes. In such cases the cut-frequency should be adjusted very low (1000Hz) and increased slowly.

Reasons for high frequency use:

Psychological effect and significance:

Besides phonematic significance of high frequency listening there is a psychological significance. Human emotions are influenced differently by various natural sounds. Reasons for this are to be found in the multifaceted human brain.

The following list describes the reviving effects of a holiday in a natural setting, or a classical concert.

In this situation the volume is less important.

The sounds of the sea can be louder than motor noises and still relaxing. This can be explained by the quality of sound- its harmony or disharmony. Humans subconsciously process these in any situation.

High frequency sounds especially:

(Can have balancing and relaxing effects)

- bird songs, sea roaring, sound of brook, light wind on leaves, undergrowth rustle, soft rain...

- natural, 'wooden' instruments

Low frequency

(can result in stress and fear)

- thunder , earthquake, ultrasound bang
- technical jamming noise (building works, motor sounds, power line hum (50-60 Hz))

Phonological meaning of high frequency has become topic of much research during the last decades. Therefore we are presenting some examples for the significance of high frequency sounds in language.

Table 1 :Phonological Significance and effectiveness

Sensation loss of some groups of phonemes for hearing disabilities from the cited frequencies on.

Frequency	Vowel	Consonant
6000 Hz		S blunted
4500 Hz		S very blunted
3500 Hz	E+I darkened and weakened	S blurred F blunted
2500 Hz	E+I hoarse and blowy	S+F no longer discriminative
700 Hz	A, Ä, Ö, Ü Sound almost like O, E, I, U	only weak noises

Table 2: Phonological meaning and effects

Main and upper frequencies as well as loss of audibility of some plosives with adults (according to R. Seck: Stimmlose Plosive, 1988)

Plosive	main frequencies	upper frequencies	High frequency attenuation and audibility in %
t	4700 Hz		to 3800 Hz 100 %
k	uku=770 Hz	3410 Hz	to 1200 Hz 100 %
	aka=1250 Hz	4610 Hz	to 1700 Hz 100 %
	oko=1490 Hz	4540 Hz	to 1800 Hz 100 %
	iki=2630 Hz	4700 Hz	to 3400 Hz 100 %

Table 1 shows sensation and differentiation of s-f sounds when the frequencies on the left cannot be heard any more.

This gives hints of a hearing perception training for Stigmatism. Additionally the training can consist of myofunctional exercises. Therapeutic experiences showed that usual hearing problems (also due to peripheral hearing disability) start with high frequency tones.

The high-frequency filtering provides a jamming-free audition and creates perfect 'sound patterns'(automatic recognition of phonemes frequency differentiation in the brain)

Perceptual selectivity of 'b,p,d,t,g,c,....' is especially well presented and integrated with the high frequency enhancement. For these sounds consist of short and high frequency

signals. Training of speech with the HPT home advances the creation of sound patterns. The hearing perception training and high frequency filtering improves speaking for delayed children and vocal disorder.

High frequency training can be used equally as well in people suffering from tinnitus. Changes in behaviour can be observed in children with attention deficit disorder (instead of Ritalin).

The activating effect can even show changes in patients with low muscle tonus and results in improved body position.

The HPT home hearing perception training performs on especially high frequencies (with higher energy than usual (unfiltered) music or speech sounds). This can be explained with the idea that (sound-)energy consist of both, amplitude (volume) and frequency (tone).

Peripheral hearing ability

Hearing perception training can improve those with light to medium hearing deficits from 10-30dB. Hearing aids have to be put away during training as high frequency can't be processed adequately by them. Using headphones the air channel of the middle ear and inner ear are stimulated.

According to the speech comprehension ability of the participant, it may be necessary to keep the hearing aid in the ear when working with speech. Then so-called 'audio-shoes' should be put over the hearing aids. Those can be connected to the HPT (ask your hearing aid specialist).

Additionally through the bone conduction the inner ear can be used. By using a bone conductor the sound is led directly via bone conduction to the inner ear while simultaneously a tactile stimulation is taking place.

This tactile stimulation is identical to the headphone signal and can therefore be part of the perception. See page13 bone conductor.

Description of levels:

Sequence presets (factory settings)

Factory levels 1-6 are also available as thirds. You can choose to use the whole level or only a part (morning, afternoon, evening).

Level 1-6 are set by the factory. Changes will not be saved/permanent.

Level 1: Example of one factory setting

Step	Time Hold on actual step	Time Move to next step	Movetime	Cut-frequ.:	Filtering
0	1 min	1 min	16,0 sec	3000 Hz	50 %
1	4 min	2 min	16,0 sec	3000 Hz	75 %
2	4 min	2 min	10,0 sec	3000 Hz	80 %
3	4 min	2 min	8,0 sec	4000 Hz	75 %
4	4 min	2 min	6,0 sec	4000 Hz	70 %
5	4 min	-	6,0 sec	5000 Hz	85 %

Run (see explanation level 1)

- The training starts with step 0 and the settings shown above set for step 1. The hold time for step 0 is 1 min. -this means that the setting will not change for 1 min. After this, the setting will change to the value of step 1 in 1 min (move time). The move time changes from 16 to 16sec (no change in this example) and the cut time fre-

quency from 3000Hz to 3000Hz (also no change in this example). The filtering changes from 50-75%. This change is shown linearly for 1 min.

- For further information on the values of steps you are welcome to ask for a free paper listing the HPT programmes.

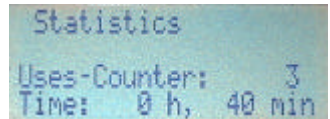
Special key functions:

Locked mode on/off:

While turning the HPT on, keep the lowest button on the right hand ('+') side pressed, until the appropriate message is displayed.

Checking the training statistics:

While turning the HPT on, keep the third '+' button (counted from top) pressed. The field statistic will show. Now you can see how often the device has been turned on (no changes possible) and how long it has been used in any of the 3 modes (control). This value can be reset to 0 (e.g. when giving it to a patient) by pressing the bottom '+' button.



Using the training plan:

We suggest you to use the training plan provided (yellow paper) for training. This can be ordered free via phone or on www.audiva.org

Getting rid of flaws:

Many flaws have simple reasons. You can solve most of them yourself before sending the HPT in.

No settings possible:

Probably the locked mode is activated, see „Special key functions:“ on page 16.

Lateralization not audible:

the cut frequency should be set on 3000Hz and the filtering at least on 70% at the beginning of the training. For lower values the lateralization is hardly audible. To increase the audibility of the lateral movement add level lateralization (page 9).

No function:

Is the power pack plugged into the plug and the HPT properly? Is the plug active/turned on?

If the green light does not show, there is a defect (see below).

No signal in one ear:

- check if the headphone plug is plugged in properly
- check the adapter at the headphone
- check the cable going into the headphone (especially when using the HD 500 and HD 570!).
- check the connection from Discman to HPT home
- is the flaw still there, check if the headphone, the cable, the Discman or the HPT is responsible for it. Contact one of our technicians and send the HPT back in case.

The microphone does not work:

- check if the microphone is turned on and the battery is loaded (needs to be renewed after latest 1 year)
- is the microphone connected to the HPT home? (left side at the front)
- did you adjust the volume of the microphone?
- is the flaw still there, check if the microphone or the HPT is responsible for it. Contact one of our technicians and send the HPT back.

Guarantee:

We allow 2 years guarantee. In this time after the date of purchase, any maintenance is free provided the defect does not result from improper use of the HPT.

Returns and replacements

Within 6 month after buying we might provide a replacement HPT (telephone agreement necessary)

Repairs:

send your HPT together with the accessories and we will deal with it as soon as possible. If the guarantee has run out we will send you an estimate of the repair costs in case we do not repair it as a courtesy.

Set up and Care:

For best results take care to

1. never put the HPT directly next to a TV set, monitors, telephones, or computers- they have strong interference fields themselves. This can result in interfered noise within the electronic circuits of the HPT home. The same principle is valid for any tone-processing electrical devices you might use additionally to the HPT: Also headphones and microphone need to be set up in a distance from any electric fields mentioned above.
2. To prevent power line hum you should not put the HPT near power lines or current distributors, even if they are only on the other side of the room.
3. Make sure you only use the bundled power pack for the HPT. Otherwise the device might not work or be damaged.
4. Prevent the HPT from wetness, direct sunlight and high temperatures.
5. The device is maintenance-free. In case you find changes with time in function or quality, send it back for a check to AUDIVA and add a description of the faults.

Cleaning:

Only wipe it with a dry or damp cloth. Strong dirt can be cleaned with special cleaning alcohol. Be careful to avoid fluids seeping into layer of film on the device as it could dissolve or change the colour. Do not use other cleaning products.

HPT home and its accessories...



HPT home built into a case...



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