

Operating Instructions H-MAN X 1



Congratulations

H-MAN X 1 the quick hearing test

You have chosen our product. Thank you for your confidence and we wish a successful use for many years.

Warranty

1 year warranty. All faults/defects you have during the warranty time will be repaired free of charge. Excepted are only wearing parts and gross negligence.

If you have a technical defect please send us the complete H-MAN X 1 together with a short description of the fault.

The first use

Component parts:The H-MAN X 1 consists of the following parts:

- The head including the electronics and the headphones
- 1 battery set
- 2 folder racks for information sheets incl. Screws

Starting up

You get the H-MAN X 1 operationally. It is only necessary to fix the folder racks at the H-MAN X 1 with the screws.

Put on the headphones and press the start key. If the LED lights up you should hear a tone. The frequencies are played alternately on the right and on the left. The test starts on the right with 0,5kHz and ends with 4kHz on the left.

If the tones are too soft for your location or too loud (background noises), you have the possibility to readjust the volume (see functional characteristics).

Functional characteristics

Important to know:

The hearing test is operated with batteries (4 pieces, 1,5 V) and so you have the possibility to use it everywhere. The test frequencies on each side; 4 tones 0,5/1/2/4kHz.

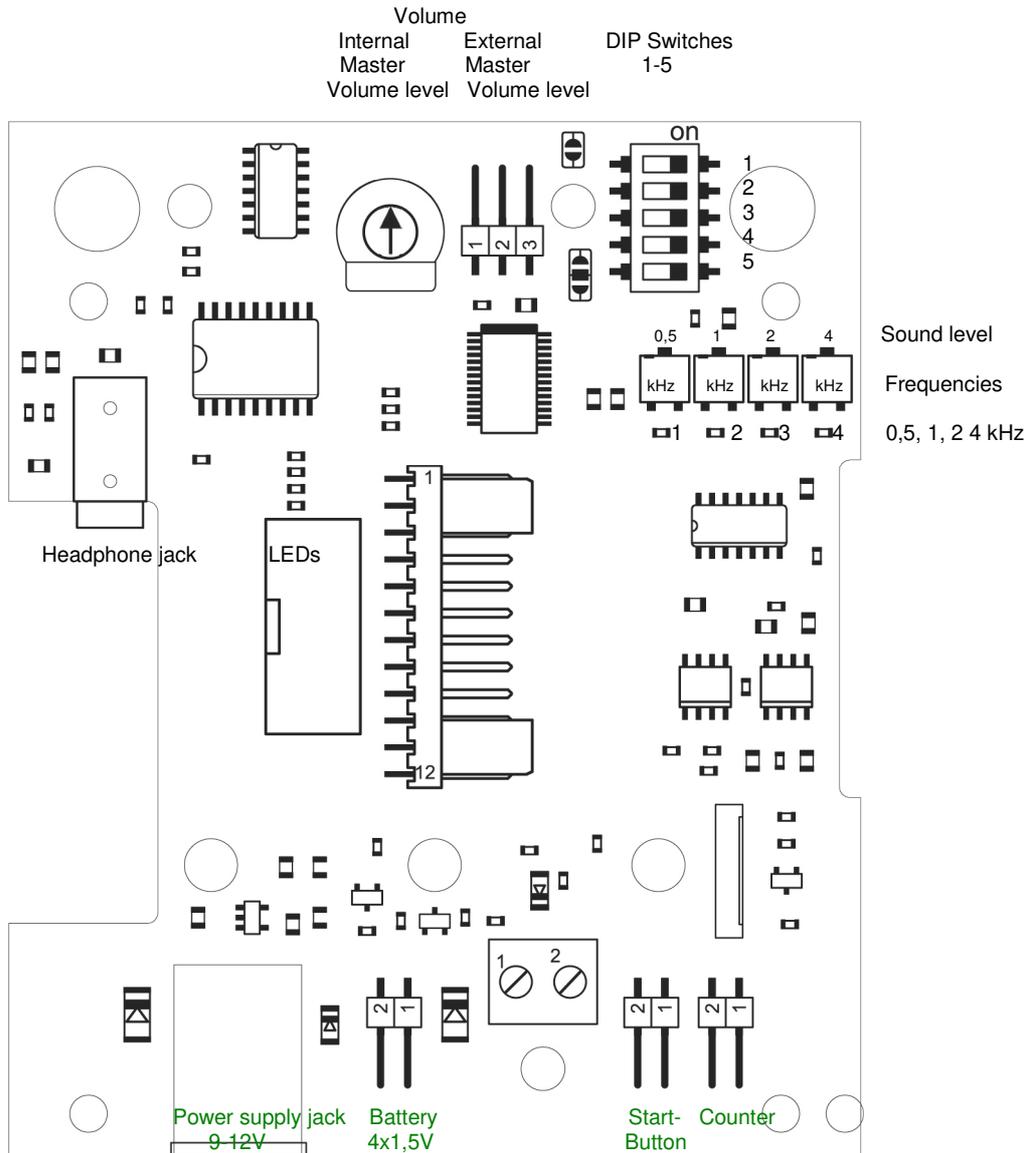
You have to remove the back cover sheet to adjust the H-MAN X 1 according to your individual wishes. Please put the head on a soft padding to prevent damages. Then remove the 2 screws with less pressure on the back cover sheet. At last you have to fix the back cover sheet again with the 2 screws.

- A. To change the batteries you have to remove the battery cover on the backside with the help of a screwdriver. Please pay attention that the batteries are polarised correctly.
- B. On the next side you will find an information how to find the position of the trimmers (adjustable resistors), jumpers (plugs) and the connections on the circuit board more quickly. To carry out your individual adjustments you have the following possibilities:

The master volume level can be adjusted by means of the external pad trimmer at the back cover panel. In addition, the volume levels of the different frequencies can be customized for either side (0,5 kHz, 1 kHz, 2 kHz, 4 kHz). Upon delivery the output level of the external pad trimmer is adjusted at about 35 dB. By means of a screw driver it is possible to increase the volume level(turning clockwise) or to reduce it (turning anti-clockwise). The volume level of the individual tones can be increased by means of a screw driver (turning anti-clockwise) or reduced (turning clockwise).



Finding out of positions: This drawing shows the position of the DIP switch, pad trimmer and contacts for the customized adjustment of your hearing tester.



In case of additionally using a counter (additional part), you will have the possibility to reset the same to 0 by means of a magnet included in the delivery (if you have ordered the counter). For this purpose you only need to move a magnet some mm from right to left, above resp. below the counter (green, red or blue point) - (magnet is attached to the headphone cable).

DIP Switches, Pad Trimmers and Contacts

Adjustment on circuit board "H-MAN X 1" with software version "hearing tester V1-1a"

Five-way DIP switch

1. "off" 1 x cycle then stop, button without function during cycle.
"on" 1 x cycle, restart possible any time by pressing the "start button".
2. Exchange headphone and Led's left/right. Off start right 0,5kHz/on start left 0,5kHz
3. Ton / Pause "off" 2 sek., "on" 4 sek.
4. without function
5. without function

Delivery status: DIP Switch: 1-"on", 2-5 "off"

"Signal battery dead" (signal undervoltage)

6 V battery operation:

In the event of a battery voltage of less than about 5,5 V, the red LED's start running down once per second from 4000 Hz to 500 Hz. Then the hearing test starts as usual at 500 Hz.

In the event of an under voltage signal, the operation of the hearing tester can be continued without any problems. In the event of a battery voltage of less than 5 V, it is no longer possible to start the hearing tester.

Power input during operation: about 11 mA.

After the automatic stop of the hearing tester, the power input is less than 1µA (multimeters normally in use do not allow to realize any measurements).

We recommend alkaline-manganese batteries with the note "in case the equipment is not used during a period of more than 3 months it is recommended to remove the batteries from the battery case. Risk of leakage.

Calculated durability of the batteries (tone/pause 2 seconds without Hold LED Function).

About 20.000 test cycles with 4 x 1,5 V Mignon alkaline-manganese batteries of about 2.500 mA/h.

Note

- Pad trimmers are adjustable resistors allowing to change the sound level.
- Please pay special attention to the functional capability of the hearing tester before using it.
- Please clean the ear cushions of the headphone after each use. They can be removed and cleaned by means of customary cleaning agents.
- The ear cushions can be reordered from eccola as spare part.
- It is recommended not to extend the headphone cable. Max. length 3 m.
- The spray for cleaning the headphone can be reordered.
- You may of course stick your logo on all free surfaces of the H-MAN X 1.

