

## **Fostex TH808**

### **Open-back headphones with dynamic driver**

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The Japanese manufacturer Fostex has been developing headphones for a long time. In this review, we would like to introduce the TH808 from the premium class of Fostex headphones, a headphone in a very classic design, with a headphone shell

housing made of dark walnut wood and leather-covered ear pads. The brand Fostex classifies its headphones as consumer products rather than as recording equipment, but there's no harm in thinking outside the box, especially regarding headphones.

### Scope of delivery



In addition to the three-meter cable, a leather/textile transport bag for the headphones is also included in the delivery. The pure copper connection cable (i.e. oxygen-free) is intended for unbalanced operation and is equipped with a 6.3-mm jack plug with gold-plated contacts on the headphone amplifier side.

The cable itself is a high-quality textile-covered cable that is split on the headphone side and equipped with two two-pole plugs with rhodium contact surfaces, which are also protected against corrosion. The plug on the right is color-coded (red), and the letters L and R are also embossed on it (as on the headphone cups themselves). The two pins are of different sizes; thus, accidental polarity reversal is excluded.



With the cable ET-H3.0N7BL, Fostex also offers an optional three-meter cable for balanced operation, which is equipped with an XLR-4 plug with gold-plated contacts.

### **Concept and technology**



Our test headphones weighed exactly 400 grams without the cable. The TH808 has an open-acoustic design and the 50-mm diameter drivers used in the TH900 series are dynamic transducers, with neodymium magnet material and a high magnetic flux density of 1.5 Tesla. The very light membrane is made of various composite materials, including cellulose fibers. The connection impedance is 25 ohms, and the sensitivity is 100dB/mW. The maximum permissible power is 1.8 watts, and the



transmission range is specified by the manufacturer as 5Hz to 45kHz.



The size of the headphones can be adjusted up to 67mm. The headband adjustment is notched, and the setting is retained even when taking the headphones off and putting them back on, so there is no need to readjust them each time. There is no provision for folding the headphones for transport, which suggests that they are intended for stationary use. The driver is protected from the outside by a solid, double-layer aluminum grille. This grille geometry also ensures an acoustically low-resonance design. The pads are made of urethane foam, which is a robust and dimensionally stable material used, for example, in door seal adhesive strips for thermal insulation. The pads are covered with leather.

## Practice



We tested the Fostex TH808 in unbalanced mode with an SPL Phonitor 2 and in balanced mode with a Lake People G108 headphone amplifier.

The headphones fit well on the head without excessive pressure. You can also wear the headphones for longer periods without any problems. But you can't say that the headphones can be described as tight, as I read in another review. This suggests that the setting of the bracket was too large. For small head sizes, it may quickly happen that you have to set the TH808 to the smallest headband size. The inner diameter of the ear cup is in the medium range, and it is by no means too narrow and very comfortable. The distance from the membrane to the ear canal is relatively small, which also leads to a high in-head localization in the perception.

The sensitivity and low output impedance are such that you can connect the TH808 to mobile devices or a headphone output on a device or instrument without hesitation and still achieve a high volume at the ear without the use of a studio headphone amplifier.

Now I want to come to the most difficult part, as always, namely, to evaluate the

sound. One thing can be said about the TH808 in any case; it offers a high level of detail. When tuning the behavior over the entire frequency transmission range, a tuning can also be detected that slightly leans towards hi-fi/consumer sound, although typical hi-fi/consumer listeners would probably describe the sound as neutral. Hearing is subjective. However, especially in the field of mastering, where you tend to optimize for the potential listener, the use of the Fostex TH808 can therefore make sense.

From a studio perspective, I would describe the sound as linear, with a slight emphasis on the highs. The manufacturer's specification of a transmission range starting at 5 Hz suggests a lot of energy in the bass range, but the TH808 is rather linear and, in the overall impression, relatively restrained due to the slight presence of highs. However, the bass range also has a high dynamic range. In general, the TH808 handles transients well. The differences in symmetrical operation are somewhat different from headphone to headphone type. In the frequency spectrum, there is not much difference noticeable, but it is quite noticeable in the area of the crosstalk attenuation, which is slightly higher in symmetrical operation.



The ear pads are should be long-durable. This is probably another reason why the headphones' manual does not describe how to replace them. It is very easy to do - if you know how. The leather-covered pads are mounted on a plastic ring (see figure above). When you pull off the pad, you can loosen the ring by turning it slightly and removing it (if necessary, use a screw driver or other tool to turn it). The pad can be easily placed on the ring, put back on completely, and locked by turning it slightly.

## Conclusion

The price of the TH808 headphones is around 1,500 euros, which is about 800 euros less than the TH909. One reason for the price is certainly the manual craftsmanship,

such as the wooden earcups. However, for the price, you could expect a few more accessories, such as replacement ear pads. The Fostex-specific cable ET-H3.0N7BL for the symmetrical connection costs approximately 400 euros. These headphones could appeal not only to music lovers but also to one or two sound engineers for studio use, especially those who also prefer a symmetrical connection to the headphone amplifier.

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