

Title (en)  
**IMPLANTABLE HEARING AID 1.1**

Title (de)  
**IMPLANTIERBARES HÖRHILFEGERÄT**

Title (fr)  
**PROTHESE AUDITIVE IMPLANTABLE 1.1**

Publication  
**EP 1240806 A2 20020918 (EN)**

Application  
**EP 00985499 A 20001208**

Priority  
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• GB 9929631 A 19991216

Abstract (en)  
[origin: WO0145457A2] A hearing aid, which incorporates a modified electro-dynamic exciter, implanted into the bone of the skull to cause vibration of the bone of the inner ear and the cochlear (inner ear) fluid. The exciter is surgically implanted into the temporal bone. The exciter is modified by encasement in a shell made of titanium or other biocompatible material and is secured in place by drilling a hole in the surface of the mastoid bone, which fits the exciter tightly. Bone cement or osseointegration is used to fix the baseplate of the exciter securely. A microphone, battery, amplifier, volume control, on/off switch and output limiter are also required. Three versions of this design are described. In Type 1 the microphone, battery, amplifier, volume control, on/off switch and output limiter and are externally located and directly connected. In type 2 these components are external and not directly connected, and a radiofrequency transmitter and receiver are employed, and in Type 3 all components are implanted.

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**H04R 25/00**

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