

Title (en)
EARPHONE

Title (de)
OHRHÖRER

Title (fr)
ÉCOUTEUR

Publication
EP 2187654 A4 20120815 (EN)

Application
EP 07806949 A 20070907

Priority
JP 2007067517 W 20070907

Abstract (en)

[origin: EP2187654A1] An earphone in which acoustic characteristics of a reproduced sound can be adjusted by a simple constitution. Though the earphone closely contacts with the outer ear of each user, the acoustic characteristics can be adjusted. The earphone (1) has a speaker casing part (2) having a built-in speaker main body part(3) and an opening part (21) for outputting acoustic waves from the speaker main body part (3), a cylindrical acoustic control tube (4) comprising an internal structure which controls the acoustic waves outputted through the opening part (21) from the speaker main body part (3) to have predetermined acoustic characteristics, and an earplug (9) comprising a cylindrical part (91) mounted to and communicated with the acoustic control tube (4) and having an outer periphery part formed in an elastically deformable manner. The acoustic control tube (4) is fixed detachably by a fixing member (7) while the connection part (42) formed at its one end is connected with a connected part (22) formed at the opening part (21) of the speaker casing part (2). The acoustic control tube (4) can be replaced with one having desired different acoustic characteristics.

IPC 8 full level
H04R 1/10 (2006.01); **H04R 1/22** (2006.01)

CPC (source: EP)
H04R 1/1075 (2013.01); **H04R 1/1016** (2013.01); **H04R 1/22** (2013.01)

Citation (search report)

- [XI] US 2003081794 A1 20030501 - FUSHIMI ISAO [JP], et al
- [XI] US 2006133636 A1 20060622 - HARVEY JERRY J [US], et al
- [A] EP 0464220 A1 19920108 - SONY CORP [JP]
- See references of WO 2009031238A1

Cited by
JP2013021590A; CN105721969A; US11343606B2; WO2016162681A1; EP3269148B1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 2187654 A1 20100519; EP 2187654 A4 20120815; EP 2187654 B1 20141231; JP 4823362 B2 20111124; JP WO2009031238 A1 20101209;
WO 2009031238 A1 20090312

DOCDB simple family (application)

EP 07806949 A 20070907; JP 2007067517 W 20070907; JP 2009531076 A 20070907