

CLAIMS

What is claimed is:

1. An assembly (110), comprising:
a headband (120) comprising a first mount (130);
an earpiece (160) comprising a second mount (164) and an electroacoustic speaker (166), wherein the second mount comprises a circumferential mounting surface (170); and
an elastomeric grommet (140) flexibly connecting the band to the earpiece, wherein the elastomeric grommet is positioned intermediate the first mount and the second mount, wherein the elastomeric grommet comprises an inner mounting surface (354), and wherein the inner mounting surface is positioned around the circumferential mounting surface to connect the elastomeric grommet to the earpiece.
2. The assembly of Claim 1, wherein the first mount comprises an annular inner surface (130).
3. The assembly of Claim 2, wherein the circumferential mounting surface comprises a groove (170), wherein a portion of the elastomeric grommet is positioned at least partially within the groove, and wherein the portion of the elastomeric grommet is friction-fit within the groove.
4. The assembly of Claim 3, wherein the groove comprises an outer notched profile (372), and wherein the elastomeric grommet comprises an inner notched profile (352) corresponding to the outer notched profile to prevent rotation of the elastomeric grommet relative to the earpiece.

5. The assembly of Claim 1, wherein the elastomeric grommet is comprised of a first material, wherein the first mount is comprised of a second material, and wherein the second material is different than the first material.
6. The assembly of Claim 5, wherein the elastomeric grommet and the headband comprise a co-molded subassembly.
7. The assembly of Claim 3, wherein the elastomeric grommet comprises a groove (350), and wherein the annular inner surface is positioned at least partially within the groove.
8. The assembly of Claim 7, wherein the groove comprises an outer notched profile, and wherein the annular inner surface comprises an inner notched profile corresponding to the outer notched profile.
9. The assembly of Claim 1, wherein the elastomeric grommet is comprised of a material selected from a group consisting of thermoplastic elastomer and silicone.
10. The assembly of Claim 1, wherein at least one relief feature (442) is defined into the elastomeric grommet.
11. An assembly (110), comprising:
 - a band (120) comprising a first end portion (122) and a second end portion (124);
 - a first earpiece (160) comprising a first electroacoustic speaker (166) and a first annular mounting surface (170);
 - a second earpiece (160) comprising a second electroacoustic speaker (166) and a second annular mounting surface (170);

a first elastomeric grommet (140) flexibly connecting the first end portion of the band to the first earpiece, wherein the first elastomeric grommet comprises a first inner mounting surface (354), and wherein the first inner mounting surface is positioned around the first annular mounting surface to connect the first elastomeric grommet to the first earpiece; and

a second elastomeric grommet (140) flexibly connecting the second end portion of the band to the second earpiece, wherein the second elastomeric grommet comprises a second inner mounting surface (354), and wherein the second inner mounting surface is positioned around the second annular mounting surface to connect the second elastomeric grommet to the second earpiece.

12. A method of manufacturing a headphone assembly (110), comprising:

molding an elastomeric grommet (140) at an end (122) of a band (120) of the headphone assembly; and

connecting the elastomeric grommet to a mount (164) of an earpiece (160) of the headphone assembly with a friction-fit connection, wherein the earpiece comprises an electroacoustic speaker (166).

13. The method of Claim 12, wherein the molding step comprises a co-molding process.

14. The method of Claim 12, further comprising:

molding a second elastomeric grommet (140) at an opposite end (124) of the band; and
connecting the second elastomeric grommet to a second mount (164) of a second earpiece (160) of the headphone assembly, wherein the second earpiece comprises a second electroacoustic speaker (166).

15. The method of Claim 14, wherein the molding steps comprise co-molding processes.

16. The method of Claim 12, wherein the band comprises an injection-molded part.
17. The method of Claim 16, wherein the injection-molded part is comprised of a first material having a first modulus of elasticity, wherein the elastomeric grommet is comprised of a second material having a second modulus of elasticity, and wherein the second modulus of elasticity is less than the first modulus of elasticity.