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Declarations under Rule 4.17:

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- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

[Continued on next page]

(54) Title: MIC COVERING DETECTION IN PERSONAL AUDIO DEVICES

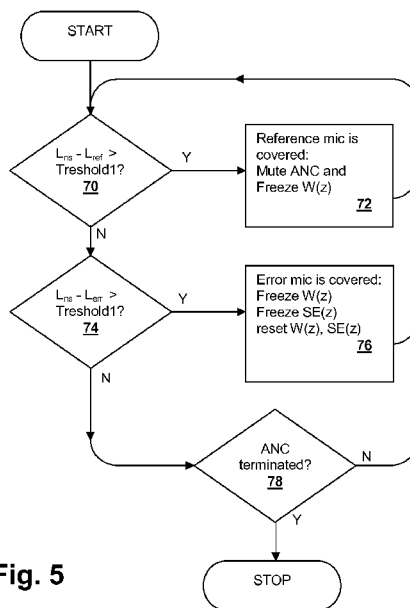
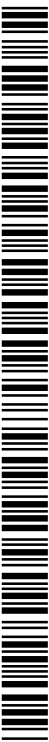


Fig. 5

(57) Abstract: A personal audio device, such as a wireless telephone, includes noise canceling circuit that adaptively generates an anti-noise signal from a reference microphone signal and injects the anti-noise signal into the speaker or other transducer output to cause cancellation of ambient audio sounds. An error microphone may also be provided proximate the speaker to estimate an electro-acoustical path from the noise canceling circuit through the transducer. A processing circuit uses the reference and/or error microphone, optionally along with a microphone provided for capturing near-end speech, to determine whether one of the reference or error microphones is obstructed by comparing their received signal content and takes action to avoid generation of erroneous anti-noise.





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INTERNATIONAL SEARCH REPORT

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| A. CLASSIFICATION OF SUBJECT MATTER INV. G10K11/178 ADD. | | |
| According to International Patent Classification (IPC) or to both national classification and IPC | | |
| B. FIELDS SEARCHED | | |
| Minimum documentation searched (classification system followed by classification symbols) G10K | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched | | |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal, WPI Data | | |
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| <input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex. | | |
| * Special categories of cited documents : | | |
| "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family | |
| Date of the actual completion of the international search | Date of mailing of the international search report | |
| 14 March 2013 | 04/04/2013 | |
| Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016 | Authorized officer de Jong, Frank | |

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