

## Component Selection in Hearing Aids

For optimum performance of the hearing aid, good quality components must be used. Component selection depends on availability, price and size of the hearing aid. For a body hearing aid, 1/8 or 1/4 watt carbon film resistors, miniature electrolytic or tantalum capacitors of 3 V to 6 V for larger values and ceramic for smaller values, are recommended. Behind-The-Ear (BTE) and In-The-Ear (ITE) hearing aids require specialized subminiature components.

Efforts have been made to specify microphones, receivers, potentiometers and switches from several sources to simplify selection and substitution. Components recommended herein are a guide to assist first-time hearing aid designers. Equivalent components from other sources may be substituted. Final choice of component selection rests with the designer.



**ON Semiconductor®**

[www.onsemi.com](http://www.onsemi.com)

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### APPLICATION NOTE

#### Microphones and Receivers

**Knowles Electronics Inc.**

1151 Maplewood Drive  
Itasca, Illinois  
USA 60143  
Phone: (630) 250-5100  
Fax: (630) 250-0575  
[www.knowles.com](http://www.knowles.com)

**Sonion A/S**

Byleddet 12-14  
DK – 4000 Roskilde  
Denmark  
Phone: +45 4630 6666  
Fax: +45 4630 6677  
[www.sonion.com](http://www.sonion.com)

#### Capacitors

**AVX Corporation**

1 AVX Boulevard  
Fountain Inn, South Carolina  
USA 29644  
Phone: (864) 967-2150  
[www.avx.com](http://www.avx.com)

**Sprague Goodman Electronics, Inc.**

1700 Shames Drive  
Westbury, New York  
USA 11590  
Phone: (516) 334-8700  
Fax: (516) 334-8771  
[www.spraguegoodman.com](http://www.spraguegoodman.com)

**Murata Electronics North America, Inc.**

[www.murata.com](http://www.murata.com)  
For local Murata offices visit:  
<http://www.murata.com/corporate/network/global/index.html>

**Vishay America**

1 Greenwich Place  
Shelton, Connecticut  
USA 06484  
Phone: (402) 563-6866  
Fax: (402) 563-6296  
[www.vishay.com](http://www.vishay.com)

**Switches and Potentiometers**

(Volume Controls and Timers)

**Bourns Inc.**

Trimpot Products Division  
1200 Columbia Avenue  
Riverside, California  
USA 92507  
Phone: (951) 781-5690  
[www.bourns.com](http://www.bourns.com)

**Deltek Electronics, A Knowles Company**

1151 Maplewood Drive  
Itasca, Illinois  
USA 60143  
Phone: (630) 250-5100  
[www.deltekelectronics.com](http://www.deltekelectronics.com) or [www.knowles.com](http://www.knowles.com)  
Deltek/Knowles Europe:  
Phone: +44 1444 235 432

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**Wilbrecht Ledco Inc.**

1400 Energy Park Drive,  
St. Paul, Minnesota  
USA 55108  
Phone: (651) 659-0919  
Fax: (651) 659-9204  
Toll-free: 1-888-323-8751  
[www.wilbrechtledco.com](http://www.wilbrechtledco.com)

(GMR Switches)

**NVE**

11409 Valley View Road  
Eden Prairie, Minnesota  
USA 55344  
Phone: (800) GMR-7141  
<http://www.nve.com/>

**Telecoils**

**Deltek Electronics, A Knowles Company**

1151 Maplewood Drive  
Itasca, Illinois  
USA 60143  
Phone: (630) 250-5100  
[www.deltekelectronics.com](http://www.deltekelectronics.com) or [www.knowles.com](http://www.knowles.com)  
Deltek/Knowles Europe:  
Phone: +44 1444 235 432

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**IntriCon Tibbetts Corporation**

PO Box 1096  
5 Colcord Avenue  
Camden, Maine  
USA 04843  
Phone: (207) 236-3301  
Fax: (207) 236-3303  
[www.intricontibbetts.com](http://www.intricontibbetts.com)

**Global Coils SAGL**

Via Ponteggia 2  
CH-6814 Lugano-Cadempino  
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[www.globalcoils.com](http://www.globalcoils.com)

(NFMI Coils)


**ISE Magnetics**

Droogdokkeneiland 29  
5026 SP Tilburg  
Netherlands  
+ 31 (0) 13 4625910  
<http://www.isemagnetics.com/>

**Shells/Faceplates**

**In'Tech Industries Incorporated**

7180 Sunwood Drive NW  
Ramsey, Minnesota  
USA 55303  
Phone: (763) 576-8100  
Fax: (763) 576-8101  
[www.intech-ind.com/hearing-products/](http://www.intech-ind.com/hearing-products/)

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