

- ① Concha Lock
- ② Microphone
- ③ Battery Compartment (Type 10)
- ④ Wax Filter

## DESCRIPTION

Microson Free Open ITC is a fully digital programmable hearing aid with WDRC processing strategy. Its 8 channels allows to the hearing care professional an easier fitting process with high reliability.

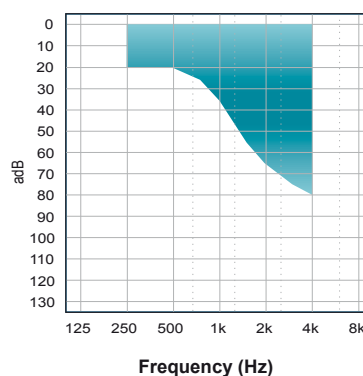
## INTENDED USE

The MICROSON Free ITC hearing instrument is indicated to compensate mild-to-moderate hearing loss (mixed or neurosensorial). It is not suitable for children. See fitting range<sup>1</sup>.

## Features

- ✓ Matrix 113/36 @ 2cc
- ✓ 100% Digital Technology
- ✓ Digital Programmable
- ✓ 8 Independent Channels WDRC
- ✓ 12 Bands
- ✓ 4 Memories
- ✓ Automatic Feedback Canceller
- ✓ Automatic Noise Reduction
- ✓ Low Battery Indicator
- ✓ Memory Change indicator
- ✓ Acoustic Tap Program Switch
- ✓ Tinnitus Masker Noise Generator (TRT)
- ✓ Configurable Power on Delay
- ✓ Suitable for mobile phones<sup>2</sup>
- ✓ Battery Type 10 – PR70 (IEC 60086)

## <sup>1</sup>Fitting Range



## Requirements

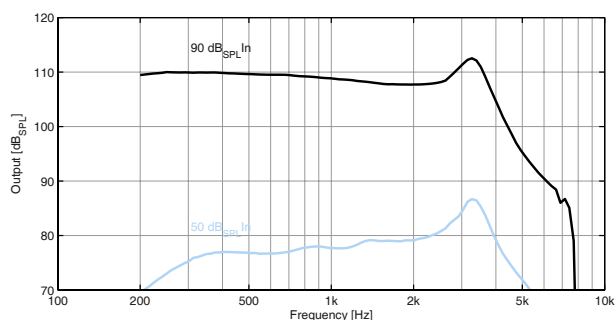
- ✓ Ref. 85364 Free ITC Programming Cable Left/Right
- ✓ Ref. 73194 HI-PRO<sup>A</sup> Hearing Instrument Programmer (Firmware 3.00 or higher) or Ref. 88616 HI-PRO<sup>A</sup> USB Hearing Instrument Programmer (Firmware 4.00 or higher) or Ref. 66183 NOAHLINK<sup>B</sup> Programming Interface (Kernel v. 1.55.03)
- ✓ Ref. 89600 Software CODA e-STUDIO 6.0.0 M 00 version or higher
- ✓ Ref. 85207 Free ITC Battery Door Tool

### NOTE:

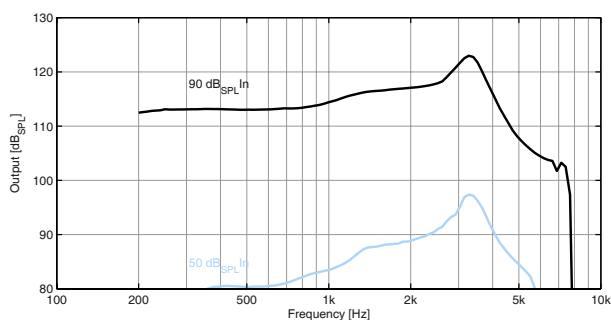
Insert cable (Ref. 85364) for programming.

<sup>2</sup>In compliance with IEC 60118-13:2011 standard

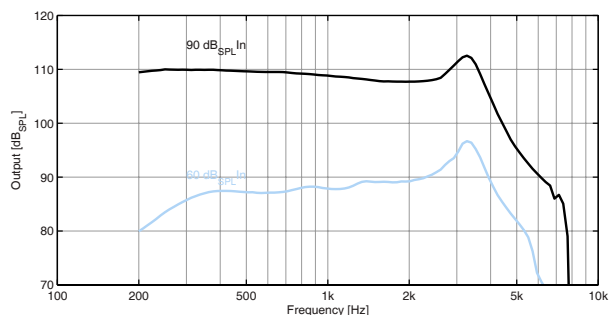
FOG / OSPL90 @ IEC 60118-7:2005



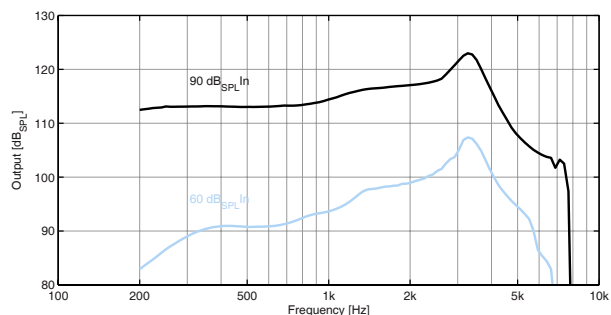
FOG / OSPL90 @ IEC 60118-0:1993/A1:1994



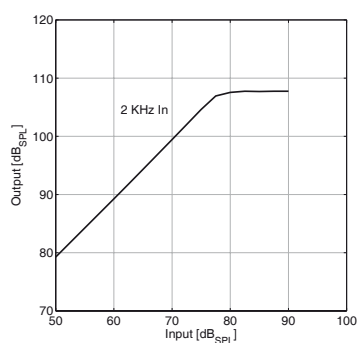
FREQUENCY RESPONSE @ RTG @ IEC 60118-7:2005



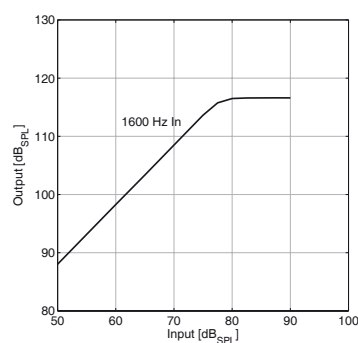
FREQUENCY RESPONSE @ RTG @ IEC 60118-0:1993/A1:1994



INPUT-OUTPUT @ RTG @ IEC 60118-7:2005



INPUT-OUTPUT @ RTG @ IEC 60118-0:1993/A1:1994



| Acoustic Data                        |                                                                  | IEC<br>60118-7:2005 | IEC<br>60118-0:1993/<br>A1:1994 |
|--------------------------------------|------------------------------------------------------------------|---------------------|---------------------------------|
| OUTPUT                               | OSPL <sup>1</sup> 90 Peak (dB <sub>SPL</sub> )                   | 113                 | 123                             |
|                                      | OSPL 90 Peak Frequency (Hz)                                      | 3400                | 3400                            |
|                                      | HFA <sup>2</sup> / RTF <sup>3</sup> OSPL 90 (dB <sub>SPL</sub> ) | 108                 | 117                             |
| GAIN                                 | HFA / RTF Full-On-Gain (dB)                                      | 29                  | 38                              |
|                                      | Full-On-Gain Peak (dB)                                           | 36                  | 47                              |
|                                      | FOG Peak Frequency (Hz)                                          | 3400                | 3400                            |
|                                      | Reference Test Gain (dB)                                         | 29                  | 38                              |
| NOISE                                | Equivalent Input Noise (dB <sub>SPL</sub> )                      | 28                  | 27                              |
| AGC <sup>4</sup>                     | Attack Time (ms)                                                 | 1                   | 1                               |
|                                      | Release Time (ms)                                                | 6                   | 7                               |
| TELECOIL                             | ETLS <sup>5</sup> @ 31,6 mA/m                                    | N/A                 | N/A                             |
|                                      | HFA-MASL <sup>6</sup> @ 1 mA/m                                   | N/A                 | N/A                             |
|                                      | 500 Hz @ 100 mA/m (%)                                            | N/A                 | N/A                             |
|                                      | 800 Hz @ 100 mA/m (%)                                            | N/A                 | N/A                             |
|                                      | 1600 Hz @ 100 mA/m (%)                                           | N/A                 | N/A                             |
| DISTORTION                           | 500 Hz @ 70 dB <sub>SPL</sub> (%)                                | 0,8                 | 1,3                             |
|                                      | 800 Hz @ 70 dB <sub>SPL</sub> (%)                                | 0,8                 | 1,6                             |
|                                      | 1600 Hz @ 65 / 70 dB <sub>SPL</sub> (%)                          | 0,8                 | 1,9                             |
| CONSUMPTION                          | Current Drain (mA)                                               | 0,79                | 0,74                            |
| FREQUENCY LIMITS                     | f <sub>1</sub> (Hz)                                              | < 200               | 200*                            |
|                                      | f <sub>2</sub> (Hz)                                              | 6400                | 6600*                           |
| Power Source: 1.3V Battery Simulator |                                                                  | IEC<br>60318-5:2006 | IEC<br>60318-4:2010             |

<sup>1</sup>OSPL: Output Sound Pressure Level<sup>2</sup>HFA: High Frequency Average<sup>3</sup>RTF: Reference Test Frequency<sup>4</sup>AGC: Automatic Gain Control<sup>5</sup>ETLS: Equivalent Test Loop Sensitivity<sup>6</sup>MASL: Magneto Acoustical Sensitivity Level<sup>7</sup>IRIL: Input-Related Interference Level

\*According to DIN 45605 standard

|                                        |                                                   | FREQUENCY BANDS |                 |                 |
|----------------------------------------|---------------------------------------------------|-----------------|-----------------|-----------------|
|                                        |                                                   | 800 - 960 MHz   | 1400 - 2000 MHz | 2000 - 2480 MHz |
| IRIL <sup>7</sup><br>IEC 60118-13:2011 | Bystander Situation Max IRIL [dB <sub>SPL</sub> ] | <19             | <19             | <19             |
|                                        | User Situation Max IRIL [dB <sub>SPL</sub> ]      | 26              | <19             | 27              |

### Accessories & Spare Parts for users

- 81718 Receiver Wax Filter Dispenser Blue (15pcs)
- 81719 Receiver Wax Filter Dispenser Red (15pcs)
- 88192 Microson Microbox Case
- 82878 10 Size Microson Hearing Aid Battery (6pcs)

### Accessories & Spare Parts for professionals

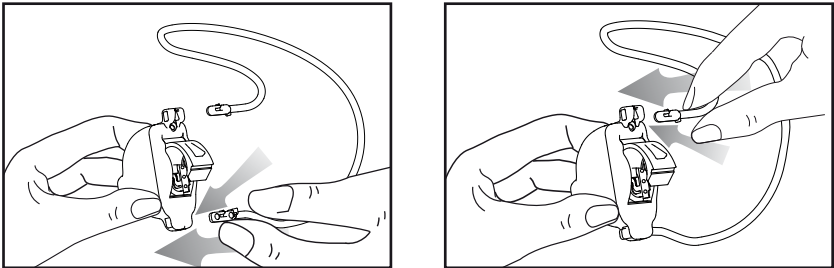
- 88754 Microson Free ITC Fitting Kit
- 85364 Free ITC Programming Cable Left/Right
- 85207 Free ITC Battery Door Tool
- 86410 Concha Lock D-Ring Right Red Large (3pcs)
- 86412 Concha Lock D-Ring Right Red Medium (3pcs)
- 86414 Concha Lock D-Ring Right Red Small (3pcs)
- 86415 Concha Lock D-Ring Left Blue Small (3pcs)
- 86413 Concha Lock D-Ring Left Blue Medium (3pcs)
- 86411 Concha Lock D-Ring Left Blue Large (3pcs)
- 85193 Battery Door Free ITC Black
- 88614 Battery Door Free ITC Beige

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Supporting Documents

- 90212 Free ITC User Manual LP2\*
- 90265 Microson Free ITC Brochure (Spanish)
- FG-0025-001 FREE ITC Programming Guide

Lock Insertion



HEARING INSTRUMENT CLASSIFICATION ACCORDING TO IEC 60601-1 STANDARD

Medical device classification

|                                     |                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protection against electrical shock | MEDICAL DEVICE WITH INTERNAL ELECTRICAL POWER SOURCE                                                                                                                                                                                                                                                                  |
|                                     | B Type Applied Part                                                                                                                                                                                                                                                                                                   |
|                                     |  This symbol indicates that the products described in these user instructions adhere to the requirements for an applied part of Type B of IEC 60601-2-66. The surface of the hearing aid is specified as an applied part of Type B. |
| Operating Method                    | CONTINUED WORKING                                                                                                                                                                                                                                                                                                     |

| Power supply electrical features | FREE ITC          |
|----------------------------------|-------------------|
| Nominal Operating Voltage        | 1.4 V             |
| Current Type                     | Direct Current DC |
| Nominal Current                  | 0.74 mA           |
| Battery Nomenclature (IEC 60086) | PR70              |

Environmental conditions

|                               | Temperature Min. (°C) | Temperature Max. (°C) | Relative humidity Min. (%) | Relative humidity Max. (%) |
|-------------------------------|-----------------------|-----------------------|----------------------------|----------------------------|
| Recommended usage and storage | 0                     | 40                    | 10                         | 95                         |

| PRODUCT  | REF   | MODEL                                                                                                         | GTIN-13       |
|----------|-------|---------------------------------------------------------------------------------------------------------------|---------------|
| Free ITC | 86057 | MICROSON Free ITC BLACK  | 8435281310272 |
|          | 88605 | MICROSON Free ITC BEIGE  | 8435281310289 |

GMDN Code: 41209

\*LP2 (ES/EN)