



# EAR DEFENDERS

EN352-1:2002

GB



## FITTING AND MAINTENANCE INSTRUCTIONS:

Ensure ear defenders are fitted, adjusted, maintained and regularly inspected in accordance with the manufacturer's instructions. Ear Defenders should be worn at all times in noisy surroundings. If these instructions are ignored, protection will be severely impaired.

**Note:** Spectacle frames and hair between the ear pad and the head may effect the performance of the ear defender. The fitting of hygiene covers to the cushions may effect the acoustic performance of the ear defender.

## CORRECT ADJUSTMENT:

**BIG RANGE, E MUFF, J MUFF, ECONOMUFF, SUPAMUFF, CLASSIC, SONOMUFF, MONZA, MONACO:**  
Position the ear defender cups at the bottom of the slots in the headband. Fit the cups over the ear, with the markings TOP above the ear. Slide the headband down until it touches the top of the head.

## ULTRAMUFF, BIG RANGE:

This ear defender is provided with an extra strap so the headband can be worn behind the head. Feed strap through the slotted lug at the top of the cup so the excess strap points away from the head. Position the ear defender cups at the bottom of the slots in the headband. Fit the cups over the ears with the markings TOP above the ear. Pull the flexible strap through the slots in the top of the cups until the strap touches the top of the head. Place the headband behind the head in the most comfortable position.

## MAINTENANCE AND STORAGE:

When not in use or during transportation, this ear defender should be stored in a container such that it is out of direct sunlight, away from chemicals and abrasive substances and cannot be damaged by physical contact with hard surfaces/items. Clean with warm soapy water. Solvent or abrasive cleaner should not be used. This product may be adversely affected by certain chemical substances, further information is available from JSP Ltd. Under normal circumstances the ear defender should offer adequate protection from 2-3 years. Cushions may deteriorate with use and should be examined at frequent intervals for cracking and leakage and replaced when required (quote model when ordering, fitting instructions provided with replacement parts).

As required by European Health and Safety requirements, the user is advised that when the ear defender is in contact with the wearers skin, it may cause allergic reaction to susceptible individuals. If this is the case, leave the hazard area and remove the ear defender.



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|                                                                   |        |     |        |      |        |      |      |          |  |
|-------------------------------------------------------------------|--------|-----|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 141g Headband Type: Plastic Cushion Type: Foam |        |     |        |      |        |      |      |          |  |
| Frequency (Hz)                                                    |        |     |        |      |        |      |      |          |  |
| <b>Economuff</b>                                                  | 63     | 125 | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                             | 10.8   | 8.3 | 11.4   | 18.4 | 27.1   | 30.4 | 32.7 | 27.2     |  |
| Standard Deviation                                                | 4.2    | 3.1 | 2.6    | 4.5  | 3.1    | 4.0  | 3.4  | 5.4      |  |
| Assumed Protection value                                          | 6.6    | 5.2 | 8.8    | 14.9 | 24.0   | 26.4 | 29.3 | 21.8     |  |
|                                                                   | H = 26 |     | M = 18 |      | L = 11 |      |      | SNR = 21 |  |

|                                                                   |        |      |        |      |        |      |      |          |  |
|-------------------------------------------------------------------|--------|------|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 141g Headband Type: Plastic Cushion Type: Foam |        |      |        |      |        |      |      |          |  |
| Frequency (Hz)                                                    |        |      |        |      |        |      |      |          |  |
| <b>J Muff</b>                                                     | 63     | 125  | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                             | 12.6   | 10.7 | 13.1   | 22.4 | 31.7   | 31.4 | 31.5 | 30.1     |  |
| Standard Deviation                                                | 4.5    | 3.3  | 2.7    | 2.5  | 4.2    | 3.8  | 3.5  | 5.2      |  |
| Assumed Protection value                                          | 8.1    | 7.4  | 10.4   | 19.9 | 27.5   | 27.8 | 28.0 | 24.9     |  |
|                                                                   | H = 28 |      | M = 21 |      | L = 13 |      |      | SNR = 24 |  |

|                                                                   |        |      |        |      |        |      |      |          |  |
|-------------------------------------------------------------------|--------|------|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 158g Headband Type: Plastic Cushion Type: Foam |        |      |        |      |        |      |      |          |  |
| Frequency (Hz)                                                    |        |      |        |      |        |      |      |          |  |
| <b>Supamuff</b>                                                   | 63     | 125  | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                             | 14     | 13.1 | 11.9   | 18.6 | 29     | 29.7 | 37.1 | 31.9     |  |
| Standard Deviation                                                | 5      | 3.6  | 2.4    | 2.7  | 3      | 3.2  | 4    | 6.3      |  |
| Assumed Protection value                                          | 9      | 9.5  | 9.5    | 15.9 | 26     | 26.5 | 33.1 | 25.6     |  |
|                                                                   | H = 28 |      | M = 19 |      | L = 13 |      |      | SNR = 23 |  |

|                                                                   |        |      |        |      |        |      |      |          |  |
|-------------------------------------------------------------------|--------|------|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 210g Headband Type: Plastic Cushion Type: Foam |        |      |        |      |        |      |      |          |  |
| Frequency (Hz)                                                    |        |      |        |      |        |      |      |          |  |
| <b>Soundstopper Foldamuff</b>                                     | 63     | 125  | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                             | 16.4   | 13.2 | 18.4   | 26.5 | 35.3   | 33.0 | 37.2 | 33.9     |  |
| Standard Deviation                                                | 4.8    | 3.3  | 2.8    | 3.2  | 3.2    | 3.7  | 2.1  | 4.0      |  |
| Assumed Protection value                                          | 11.6   | 9.9  | 15.6   | 23.3 | 32.1   | 29.3 | 35.1 | 29.9     |  |
|                                                                   | H = 31 |      | M = 25 |      | L = 17 |      |      | SNR = 28 |  |

|                                                                   |        |      |        |      |        |      |      |          |  |
|-------------------------------------------------------------------|--------|------|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 330g Headband Type: Plastic Cushion Type: Foam |        |      |        |      |        |      |      |          |  |
| Frequency (Hz)                                                    |        |      |        |      |        |      |      |          |  |
| <b>Monza</b>                                                      | 63     | 125  | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                             | 15.3   | 18   | 24.7   | 35.6 | 41.6   | 32.4 | 37.3 | 39.3     |  |
| Standard Deviation                                                | 3.2    | 3.3  | 2.9    | 2.8  | 5.2    | 4.7  | 4.1  | 3.5      |  |
| Assumed Protection value                                          | 12.1   | 14.7 | 21.8   | 32.8 | 36.4   | 27.7 | 33.2 | 35.8     |  |
|                                                                   | H = 30 |      | M = 30 |      | L = 22 |      |      | SNR = 31 |  |

|                                                                   |        |      |        |      |        |      |      |          |  |
|-------------------------------------------------------------------|--------|------|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 300g Headband Type: Plastic Cushion Type: Foam |        |      |        |      |        |      |      |          |  |
| Frequency (Hz)                                                    |        |      |        |      |        |      |      |          |  |
| <b>Monaco</b>                                                     | 63     | 125  | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                             | 18.1   | 20.7 | 28.9   | 37.6 | 44.0   | 37.1 | 41.8 | 41.5     |  |
| Standard Deviation                                                | 2.8    | 2.8  | 3.1    | 3.9  | 3.5    | 3.0  | 2.6  | 3.7      |  |
| Assumed Protection value                                          | 15.3   | 17.9 | 25.8   | 33.7 | 40.5   | 34.1 | 39.2 | 37.8     |  |
|                                                                   | H = 37 |      | M = 34 |      | L = 28 |      |      | SNR = 36 |  |

|                                                                      |        |      |        |      |        |      |      |          |  |
|----------------------------------------------------------------------|--------|------|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 224g Headband Type: Plastic Cushion Type: Foam    |        |      |        |      |        |      |      |          |  |
| NOTE: These figures correspond to when the headband is over the head |        |      |        |      |        |      |      |          |  |
| Frequency (Hz)                                                       |        |      |        |      |        |      |      |          |  |
| <b>Big Range</b>                                                     | 63     | 125  | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                                | 16.1   | 13.6 | 17.6   | 24.1 | 37.3   | 33.9 | 38.8 | 37.6     |  |
| Standard Deviation                                                   | 4.3    | 2.9  | 2.4    | 2    | 3.2    | 2.7  | 2.9  | 3        |  |
| Assumed Protection value                                             | 11.8   | 10.7 | 15.2   | 22.1 | 34.1   | 31.2 | 35.9 | 34.6     |  |
|                                                                      | H = 33 |      | M = 25 |      | L = 17 |      |      | SNR = 28 |  |

|                                                                   |        |      |        |      |        |      |      |          |  |
|-------------------------------------------------------------------|--------|------|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 170g Headband Type: Plastic Cushion Type: Foam |        |      |        |      |        |      |      |          |  |
| Frequency (Hz)                                                    |        |      |        |      |        |      |      |          |  |
| <b>Classic 1</b>                                                  | 63     | 125  | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                             | 15.0   | 12.9 | 15.6   | 25.2 | 33.4   | 30.8 | 38.8 | 34.8     |  |
| Standard Deviation                                                | 4.2    | 3.1  | 2.6    | 2.7  | 4.0    | 3.1  | 2.9  | 4.7      |  |
| Assumed Protection value                                          | 10.8   | 9.8  | 13.0   | 22.5 | 29.4   | 27.7 | 35.9 | 30.1     |  |
|                                                                   | H = 30 |      | M = 23 |      | L = 16 |      |      | SNR = 26 |  |

|                                                                   |        |      |        |      |        |      |      |          |  |
|-------------------------------------------------------------------|--------|------|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 210g Headband Type: Plastic Cushion Type: Foam |        |      |        |      |        |      |      |          |  |
| Frequency (Hz)                                                    |        |      |        |      |        |      |      |          |  |
| <b>Classic 2</b>                                                  | 63     | 125  | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                             | 16.4   | 13.2 | 18.4   | 26.5 | 35.3   | 33.0 | 37.2 | 33.9     |  |
| Standard Deviation                                                | 4.8    | 3.3  | 2.8    | 3.2  | 3.2    | 3.7  | 2.1  | 4.0      |  |
| Assumed Protection value                                          | 11.6   | 9.9  | 15.6   | 23.3 | 32.1   | 29.3 | 35.1 | 29.9     |  |
|                                                                   | H = 31 |      | M = 25 |      | L = 17 |      |      | SNR = 28 |  |

|                                                                   |        |      |        |      |        |      |      |          |  |
|-------------------------------------------------------------------|--------|------|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 270g Headband Type: Plastic Cushion Type: Foam |        |      |        |      |        |      |      |          |  |
| Frequency (Hz)                                                    |        |      |        |      |        |      |      |          |  |
| <b>Classic 3</b>                                                  | 63     | 125  | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                             | 19.4   | 19.4 | 23.1   | 31.6 | 39.6   | 36.9 | 41.3 | 37.7     |  |
| Standard Deviation                                                | 4.8    | 4.0  | 3.2    | 4.1  | 3.5    | 3.8  | 3.8  | 6.6      |  |
| Assumed Protection value                                          | 14.6   | 15.4 | 19.9   | 27.5 | 36.1   | 33.1 | 37.5 | 31.1     |  |
|                                                                   | H = 34 |      | M = 29 |      | L = 12 |      |      | SNR = 32 |  |

|                                                                   |        |      |        |      |        |      |      |          |  |
|-------------------------------------------------------------------|--------|------|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 205g Headband Type: Plastic Cushion Type: Foam |        |      |        |      |        |      |      |          |  |
| Frequency (Hz)                                                    |        |      |        |      |        |      |      |          |  |
| <b>Classic GP</b>                                                 | 63     | 125  | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                             | 17.9   | 12.9 | 19.4   | 26.7 | 36.4   | 38.9 | 40.7 | 40.2     |  |
| Standard Deviation                                                | 7.2    | 6.1  | 4.4    | 4.1  | 3.6    | 3.7  | 5.1  | 4.4      |  |
| Assumed Protection value                                          | 10.7   | 6.8  | 15.0   | 22.6 | 32.8   | 35.2 | 36.6 | 35.8     |  |
|                                                                   | H = 35 |      | M = 24 |      | L = 15 |      |      | SNR = 27 |  |

|                                                                   |        |      |        |      |        |      |      |          |  |
|-------------------------------------------------------------------|--------|------|--------|------|--------|------|------|----------|--|
| Ear Defender Mass: 230g Headband Type: Plastic Cushion Type: Foam |        |      |        |      |        |      |      |          |  |
| Frequency (Hz)                                                    |        |      |        |      |        |      |      |          |  |
| <b>Classic Extreme</b>                                            | 63     | 125  | 250    | 500  | 1000   | 2000 | 4000 | 8000     |  |
| Mean Attenuation (dB)                                             | 15.6   | 20.2 | 21.1   | 28.2 | 34.8   | 35.2 | 34   | 36.4     |  |
| Standard Deviation                                                | 7.2    | 3.5  | 1.9    | 2.1  | 4.8    | 5.1  | 3.5  | 4.1      |  |
| Assumed Protection value                                          | 8.4    | 16.7 | 19.2   | 26.1 | 30     | 30   | 30.5 | 32.3     |  |
|                                                                   | H = 31 |      | M = 28 |      | L = 22 |      |      | SNR = 30 |  |