## Appendix AD: Calibration and Mechanical Check of the Audiometer

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| District Name: *Click to Enter District Name* Date: *Click to Select a Date* |

Manually-operated pure tone audiometers (those which require the clinician to manually set the frequency and decibel level) must be calibrated annually and meet ANSI S3.6-2004 standards.

1. The manual for each audiometer will indicate which standards are met.
2. A "biologic check" of the audiometer should be performed before each day's use to ensure the results obtained for that day are valid. The following guidelines are recommended for the biologic check.
   1. Whenever possible, the same individual should perform the biological check each day for the specific audiometer being used.
   2. Obtain a true threshold (the softest level that can be heard 2 out of 3 times) on the better ear with the right earphone (red earphone) and record the results at each frequency.
   3. Using the **SAME** ear, obtain a threshold with the left earphone (blue earphone) and record the results.
   4. Compare the thresholds at each frequency to ensure that they do not differ by more than +/- 5 dB. If they do vary, the audiometer should not be used. This discrepancy between earphones indicates that one earphone is testing at a better level than the other earphone. The audiometer needs to be checked.
3. A maintenance check of the audiometer should be performed at the same time of the biologic check before each day's use to ensure the audiometer is in good working order. The following guidelines are recommended for the maintenance check. It is recommended that a clinician with normal hearing do the quick maintenance check immediately before use.
4. Preferably after use with each child, it is recommended that the earphones be cleaned with a **NON-ALCOHOLIC,** 100% tuberculocidal, bactericidal, fungicidal, and virucidal agent. When cleaning, keep all moisture away from the diaphragm.

| **Check** | **Problem** | **Send for Repair** |
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| Press the interrupter switch and present tone. | Do you hear a "click"? | If so, send for repair. |
| With earphone on the clinician's ears, present a 1000 Hz tone at 50 dB HL in each ear and shake or run fingers along the cords to the earphones. | Is the tone intermittent or is static heard? | If so, send for repair. |
| Check Earphone cushions. | Are the earphone cushions clean and free from cracks and tears? | If not, obtain new ones. |
| Check Dials. | Are the frequency and attenuator dials tight and free from slippage? | If not, obtain new ones. |
| Place headband on head. | Is the headband snug with sufficient tension on the head? | If not, obtain a new one. |
| Check for cross talk at 1000 Hz at 70 dB HL for each earphone. | As you listen to the right earphone, no sound should be present in the left earphone. | If crosstalk occurs, send for repair. |

**Daily Biologic Calibration and Mechanical Check Data Sheet**

Name of individual performing check: *Click to Enter Name*

Audiometer ID: *Click to Enter ID* Date: *Click to Select a Date*

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| **Same Ear Hearing Threshold Level** | | | | | | | | |
| PHONE | 500 Hz | 1000Hz | | 2000Hz | 3000Hz | 4000Hz | 6000Hz | 8000Hz |
| Right (red) |  |  | |  |  |  |  |  |
| Left (blue) |  |  | |  |  |  |  |  |
| **Mechanical Checklist** | | | | | | | | |
| **Specific Check** | | | **Does Problem Exist**  **(Select Yes or No)** | | | **Specific Repair Need** | | |
| Is click heard with interrupter switch? | | | *Select Yes or No* | | | Send for repair | | |
| Are earphone cords intermittent? | | | *Select Yes or No* | | | Send for repair | | |
| Is static heard in earphone cords? | | | *Select Yes or No* | | | Send for repair | | |
| Are dials slipping? | | | *Select Yes or No* | | | Send for repair | | |
| Is crosstalk present? | | | *Select Yes or No* | | | Send for repair | | |
| Is headphone band loose? | | | *Select Yes or No* | | | Obtain new headband | | |
| Are earphone cushions cracked or torn? | | | *Select Yes or No* | | | Obtain new cushions | | |

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