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## Caution

**Read these instructions completely before beginning the installation. The anr modules are finely tuned & require that installation be performed strictly in accordance with this manual. Deviations from the instructions contained herein will result in a system malfunction. Purchaser assumes all risks arising from an improper installation.**

**This product is intended for “self” installation into your headset and requires reasonable skill in the use of a soldering tool but a minimal understanding of electronics. If you question your ability to perform the installation, you are advised to take this unit & your headset to the nearest electronic technician, or ship them to HEADSETS, INC. for a factory installation. Any competent radio/tv technician or avionics technician should be able to install the modules in less than 2 hours.**

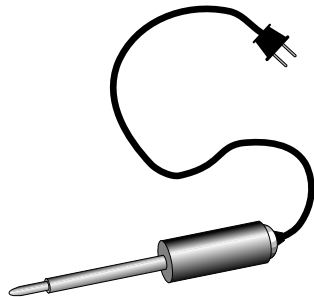
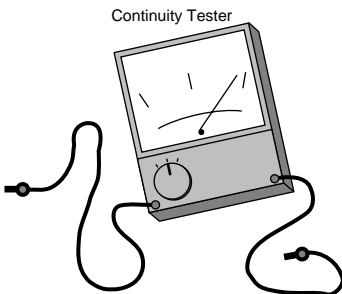
## Parts List

### ***Check to see you have received all materials***

- 1 pair modules** (2 modules) - marked R & L. Each module contains an anr speaker, audio speaker, microphone and circuit board.
- 1 battery aase** - Sliding door permits easy access to the 9v battery.
- 1 power cable** - 60 inch, 2 conductor (red = 9v+ black or white = ground-).
- 1 crossover cable** - a 4 conductor cable, 33" length.
- 1 zip-loc bag of installation materials:** solder, 28ga wire, shrink-wrap, tie-wraps, 2 fabric pads (black/white oval), one small zip-loc bag containing a spot of silicone grease.
- 1 pair of Peltor earseals**

## Tools Needed

- 1. Fine tip soldering tool (20 watt or less)
- 2. Small wire cutters
- 3. Small screwdriver set
- 4. Damp sponge- to clean solder tip
- 5. Butane lighter-to heat shrink wrap
- 6. Continuity Tester (optional)-very helpful to confirm & identify wire leads



## Installation Overview

The modification of your Peltor 7005/7006 headset involves the following steps:

1. **Removal** of earmolds, two pieces of original foam insulation and original audio speakers, original crossover cable
2. **Installation** of power cable and crossover cable
3. **Soldering:** connecting wire leads as per wiring diagram
4. **Re-assembly** of insulation, soldering three leads to each anr module, closing earmold

The anr modules for Peltor headsets have a yellow conform foam gasket attached. This gasket provides an air tight seal between the module and the earmold.

### **I. Remove earmolds, existing speakers, original insulation**

See Figure 1. First, remove both earmolds from the earmolds. Peltor headsets have rigid earmolds which snap into the earmolds. Reach in and pull the earmolds out with your fingers. Remove the first two pieces of original foam insulation and set aside for reuse. Do not remove the deepest piece of foam insulation from the earmolds.

In each cup you will find a small audio speaker encased in blue plastic. Remove the two screws holding each speaker and remove the speakers. There is no need to pry open the speaker cases and disconnect from the speaker itself. Clip the two wires attached to each speaker, about 1/4 inch from each speaker. In each earmold mark these two wires audio. The speaker cases were mounted on the Peltor pc board which must remain in place.

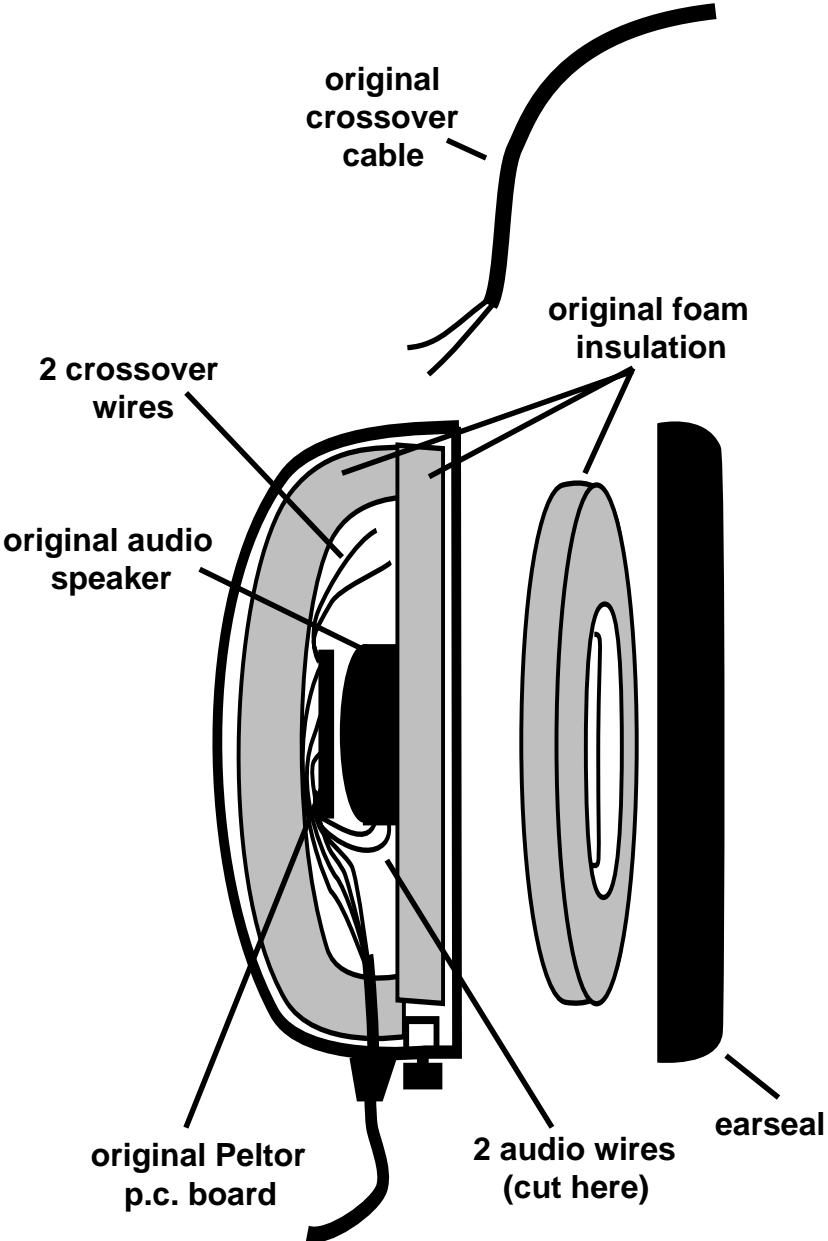
### **II. Remove old crossover cable and install 4c crossover cable** (most laborious part of installation)

To remove the old crossover cable, cut the cable in each earmold, just inside each cup. In each earmold mark these two wires crossover.

Remove the metal crimps (at the grommets). Upon reassembly, there should be little need for a crimp here, but use one of the tie-wraps provided with your kit if necessary. Do not re-use the metal crimps.

**Before removing the old cable from the headband, use it to pull the new cable through the headband.** The only way to do this is to solder the new cable to the old cable and tape over the rough splice with one layer of electrician's tape. Then, you will need to lubricate the new cable with a very thin coating of silicone grease (provided) before carefully pulling the new cable through. Have an assistant help by pushing on the opposite end of the cable.

After pulling the new crossover cable through the headband, you must pull the cable ends through their respective grommet and into the earmolds. Getting the cable ends through the grommets and into the earmold will be difficult or impossible unless you lubricate the cable before it enters the grommet. Apply a very thin film of silicone grease to each end of the cable. Push the new crossover cable through the grommet on top of each earmold.



**Fig. 1**  
Original audio speaker and insulation

### III. Install power cable

The power cable may be pulled through the same grommet where the main audio cable enters the earcup. First, remove the metal band found on the inside portion of this grommet, just as you did with the crossover cable. Next, leaving all wiring intact, carefully pull out the main cable until the cable casing exits the grommet. The individual cable wires remain attached and will extend up through the grommet and up into the earcup. Next, lubricate the top 1 or 2 inches of both cables with the silicone grease provided. Place the 2 cables side by side and push/pull the 2 cables together into the earcup. Inside the earcup, place a tie wrap around both cables. Pull down on the cables until the tie-wrap stops on the grommet. The 9v+ lead is the red wire, the 9v- lead is the black wire.

### IV. About soldering

If you are not experienced with a fine tip soldering tool, a few minutes of practice will greatly improve your proficiency. Spend enough time and care to insure that solder joints and splices are cleanly done.

When soldering 2 wires together, twist the bare wire strands and trim to leave only 1/8" bare wire exposed. Heat the bare wire ends with iron and "tin" wire ends by melting solder into the wire until it is "wet" with solder. The rosin core of the solder acts to facilitate the wetting of the wire braid, so melt the solder directly into the wire to be tinned, and also to the tip of the (clean) tool. Clean the solder tool tip of excess solder& rosin by rubbing it on a damp sponge or towel.

Wire ends being soldered should each have only 1/8" to 1/4" exposed, short enough that they are completely covered by shrink wrap.

Cover the exposed splice with shrink wrap. Heat the shrink wrap for 1-2 seconds with a flame (butane lighter works best). Keep the flame away from the wires to avoid burning.

Use only electronic type solder (has no acid). A fine point soldering iron is available at most hardware stores for under \$10. Practice soldering. Re-work any splices if not pleased with initial work, or if you see that the wiring job can be improved.

### V. Compare existing p.c. board in each earcup to Fig. 2

Figure 2 is provided as a general overview of the circuit boards found in each Peltor earcup. Your circuit boards may not exactly match Figure 2. Use Figure 1.1 and Figure 3 when making the wiring harness. These instructions are designed so that the installer need only identify the 2 original speaker wires and 2 original crossover cable wires in each earcup.

Early model boards have no components and act only as junction boards. Later models have components for a microphone pre-amp. Either way, they will remain in place and the existing leads on these boards will be used to wire in the system. By attaching only to existing leads you are able to **avoid soldering directly to the boards**. A cleaner installation will be made with this method.

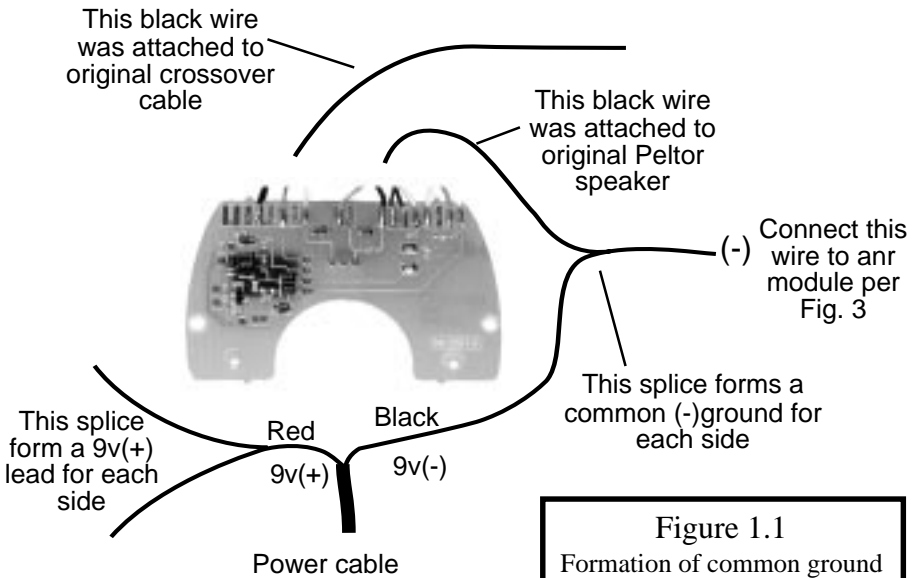
## VI. Splice and solder wiring (Fig. 1.1)

Note: All soldering described on this page occurs in left earcup. Before you begin to solder any wires you should have installed the new power cable and crossover cable as described previously. The new crossover cable has 4 conductors (red, green, black, white). This installation requires only 3 conductors, so disregard the white wire.

### 1. Form the common ground circuit:

Solder the 9v(-) lead from the power cable to the black wire originally attached to the Peltor speaker. Next, solder a 4 inch piece of black wire (provided) to this first splice. This black wire is a common ground and will attach to the anr module per Fig. 3.

Re-attach the two wires that were original crossover wires to the new crossover cable; yellow to green and black to black.



### 2. Form the 9v(+) circuit:

Cut two pieces of red wire 4 inches long and dovetail these two to the 9v(+) wire. (See Fig 1.1 above). Solder one of these to the crossover cable (red). The other will attach directly to the left module in the next step.

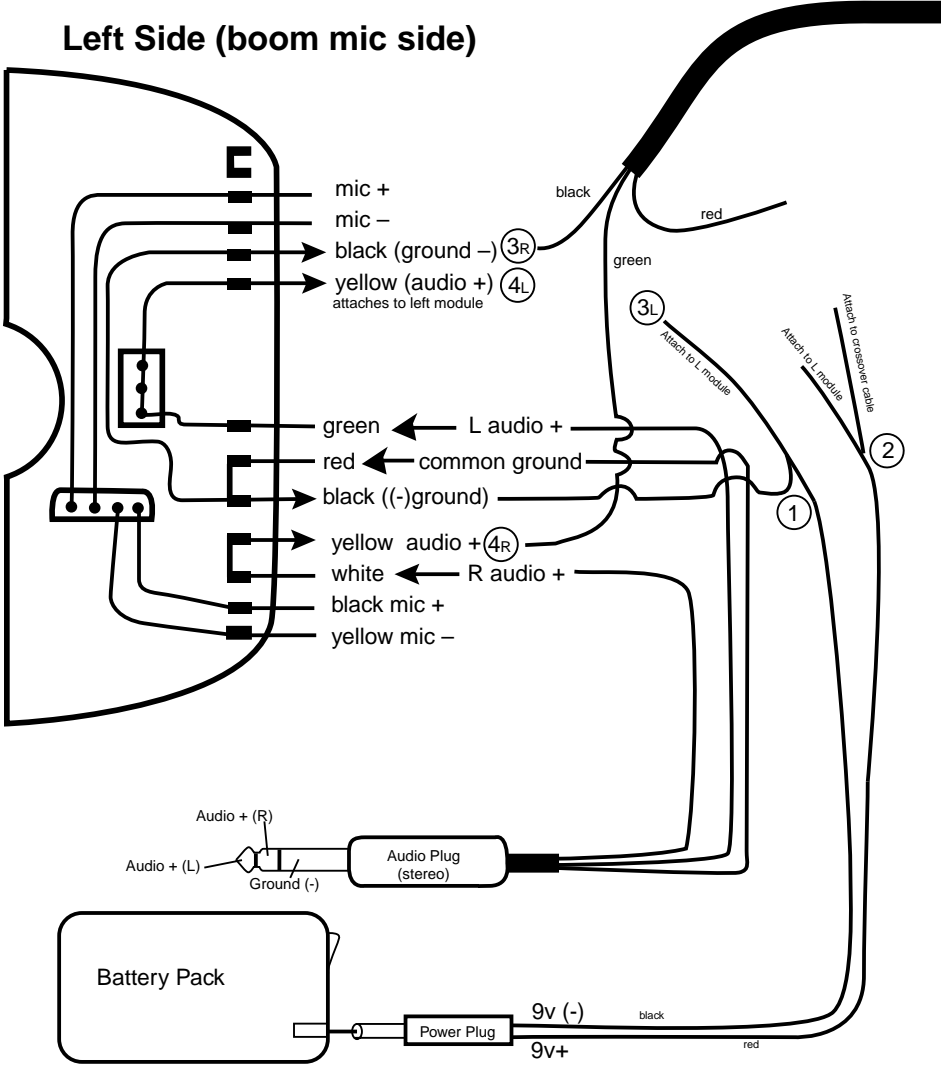
**3. The audio(+) L lead** is the yellow wire that went to the original Peltor speaker. It will attach to the left module per Fig. 3.

**The audio(+) R lead** is the yellow wire that that went to the original crossover cable. The audio(+) R lead will attach to the new crossover cable (green) and will carry the audio signal to the right earcup.

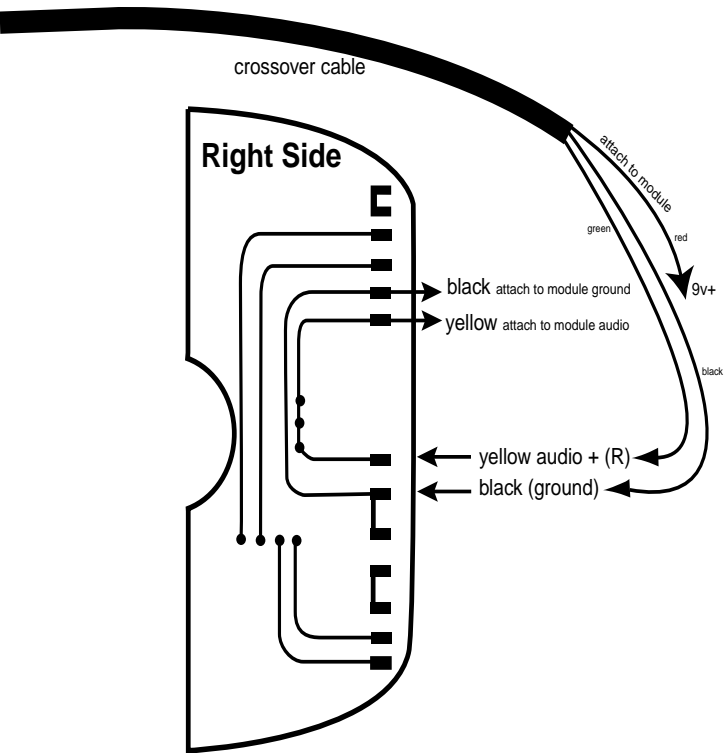
**4. In right earcup** solder the 2 original crossover wires to the new crossover cable; yellow to green and black to black.

**Figure 2**  
Wiring diagram

**Left Side (boom mic side)**







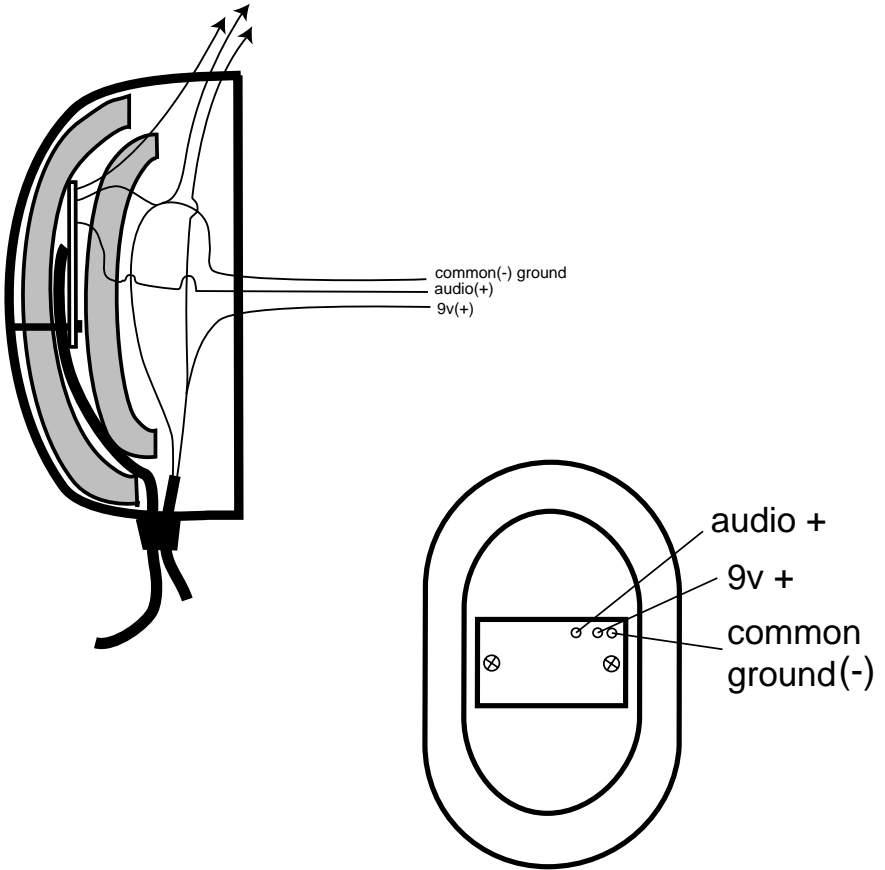
### Peltor 7005/7006 Wiring Diagram

- ① The 9V (-) ground merges with the audio (-) ground to form a Common ground.
- ② The 9V (+) divides into 2 leads, one lead going to each module.
- ③L ③R These are the 2 common grounds (-), one lead going to each module.
- ④L ④R These are the 2 audio leads, one lead going to each module.

## VII. Solder 3 wires to each anr module

After the parallel wiring circuits have been completed, there should be three exposed wires coming from each earcup, about 3 inches long. Solder these wires to the anr modules per the drawing below. Do this before reinstalling foam insulation.

Before soldering any wires to the anr modules' circuit boards, check to make sure the module marked L is on the left side and the one marked R is on the right side.



**Fig. 3**

Wiring to modules

## VIII. Closing the headset

The final step is to reinstall the original insulation, anr module and earseal. In each earcup the original p.c. board is to be sandwiched between two of the original foam pieces. The third piece of foam insulation is donut shaped and fits on top of the other insulation, cradling the anr module. The anr module should then be placed in the earcup face up and centered. Place the Peltor earseal directly over the anr module and compress until the earseal aligns with the earcup. If there are no exposed wires, insulation, etc., the earseal may be snapped into place. The anr module is now suspended between the original foam insulation (behind the module) and the yellow confor foam gasket (between module and earseal). The position of the module maybe adjusted slightly side to side and top to bottom.

If you need to remove a module, you may reach in under the edge of the earseal and pop the earseal out. Also notice there is a very small notch on the edge of each earcup where it mates with the earseal. You may use very small screw driver to pry the earseal from the earcup.

