

Installation of the CEP interface harness, CEP900-I04, into the ALPHA helmet

STEP 1 CONNECTOR ASSEMBLY (ALPHA)

1. Place the helmet on a surface in front of your with the front of the helmet facing away with the right side of the helmet facing toward you.
2. The location of the hole to be drilled in the helmet shell is determined by using the lower edge of the helmet shell edge roll and the screw fastener which holds the earcup tension bands in place.
3. Using the 6 inch rule, place the rule parallel to the shell edge roll and measure one inch from the edge of the tension band adjustment knob to a point on the masking tape and draw a horizontal line with the marker.
4. Utilizing your 6 inch ruler, measure perpendicular from the shell edge roll a distance of 1 and 1/8 inches and mark the point with a vertical line using the marker.
5. The intersection of these two lines is the point of insertion for the helmet interface.
6. Drill a 3/8" hole through the helmet shell at this location. Trim around the edge of the hole removing loose, excess fibers.
7. Insert the interface, CEP900-I04, through the 3/8-inch hole, **feeding the brass pins attached to the black and white wires through the hole first**. Seat the connector into the hole with the ABS spacer between the outer shell and the connector.
8. On the inside of the helmet, pass the solder tab washer through the pins and over the grommet and position on the inside of the shell over the connector threads.
9. Pass the connector nut down the wire over the grommet, (this may be a challenge the first time), and thread the nut onto the connector threads.
10. Position the solder tab washer so the solder tab is directed toward the top of the helmet and tighten the connector nut. The torque on the nut should be about 96-inch ounces.
11. Using long nose pliers, pull the solder tab washer at the solder hole up and away from the helmet shell about 1/2 inch. Solder the black **ground** wire to the solder tab washer. Bend the solder tab back to the surface of the helmet.



STEP 2 EARCUP ASSEMBLY

1. Position the helmet with the right earcup down, toward the table surface.
2. Remove the earphone retaining foam, earphone receiver, and foam backing piece from the earcup.
3. Disconnect the earphone receiver, using a jeweler's screwdriver.
4. Carefully pull additional communication cable into the earcup to allow easier access to the metal tips.
5. Rotate the earcup so the wire into the back of the earcup is positioned so the additional hole can be drilled through the earcup wall.
6. Mark a location on the right earcup that is 3/8" to 1/2" adjacent to the existing grommet.
7. Carefully drill a 1/4" hole at that location by positioning the drill bit 90 degrees to the surface of the earcup and drill through the earcup wall. Be very careful to keep the wires inside the earcup away from the drill bit when drilling the hole. (Fig.1)
8. Insert the CEP interface-cable assembly, **brass pins attached to the black and white wires**, into the hole and seat the grommet. Additional wire may be pulled through the grommet into the earcup **to assist in joining the brass interface and the earphone receiver pins**.
9. **One at a time**, loosen the set screw in the brass pins that are attached to the ends of the black and white wires. (Careful to not loosen too far).
10. Join each of the earphone pins into the back of the CEP interface pins, **black/black wire and white/white wire** and tighten the set screws.
11. Re-attach the earphone receiver to the two joined pins.
12. Replace the backing foam, earphone receiver, and the earphone retaining foam into the earcup.
13. Position the earcup in the retaining harness at its original position for the user.
14. **Test the interface by listening for audio signals first through the earcups and then through the CEP.**
15. **Installation is complete if clear audio signals are present.**

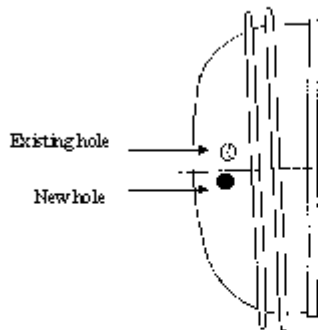


Figure 1. Drill 1/4" hole below existing grommet.