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Excel Transducer cable install procedure

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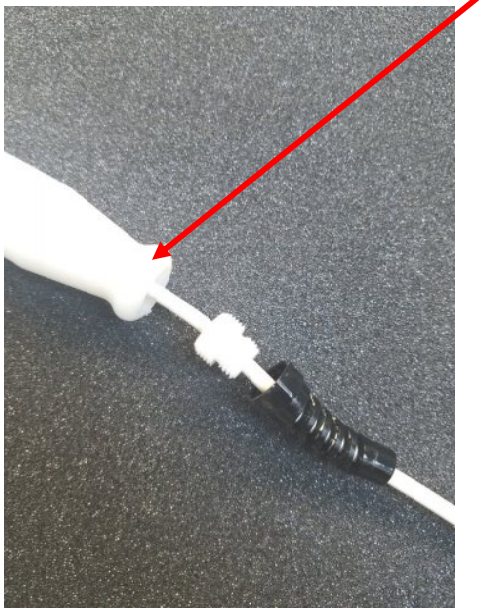
Start out with the sound head by un-screwing the strain relief and the threaded insert from the head, move it down the wire and try to remove the internal wire plug as well. There is an “O” ring there that will need to be replaced.



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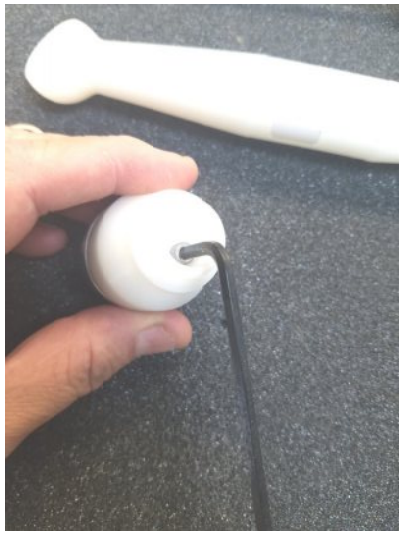
The Job is complete and ready for testing and to be put back in service.

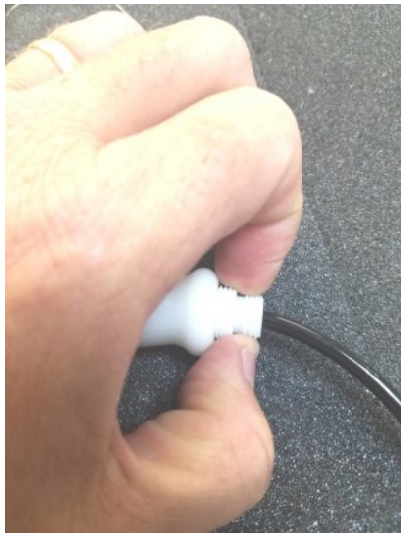
Unscrew the plastic cup from the handle

Now pull the handle and the wire until it breaks free from the crystal/cup assembly. It may take a little force.

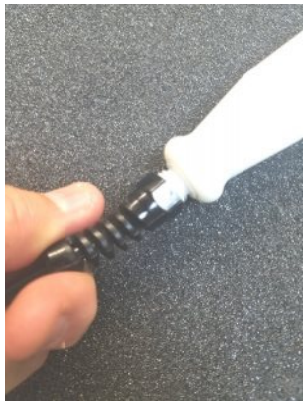
Here is a exploded picture of how to reassemble the head



Take an allen wrench and unscrew the plastic cap from the crystal cup assembly.



Now tighten up the threaded plug and tighten with a pair of pliers,



Tighten the strain relief .

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Once the assembly is close to the handle, start threading the handle on the assembly by turning the handle and NOT the assembly. Too much torque on the cable could break the ground and center conductor job you just completed

Tighten down the assembly to the handle.

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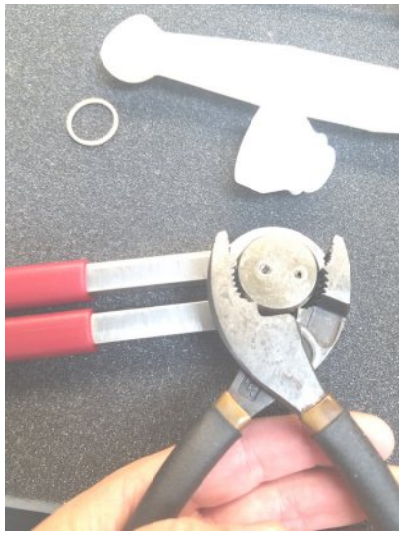
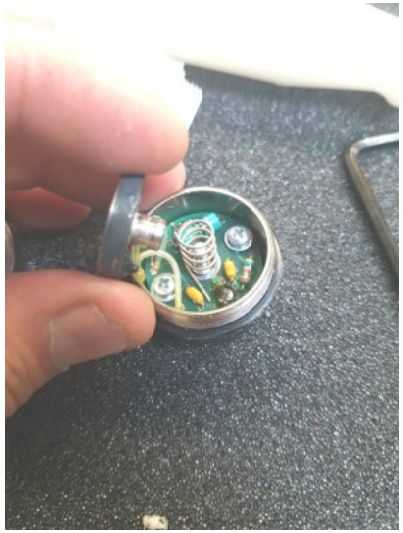
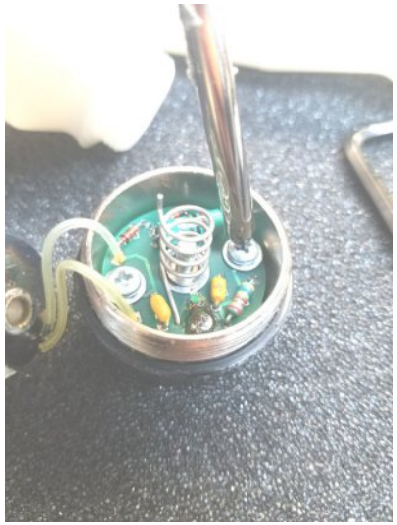


Use a crystal wrench and a pair of pliers to remove the crystal from the crystal cup.

Crystal wrenches are available at ersbiomedical.com Part number C5W005



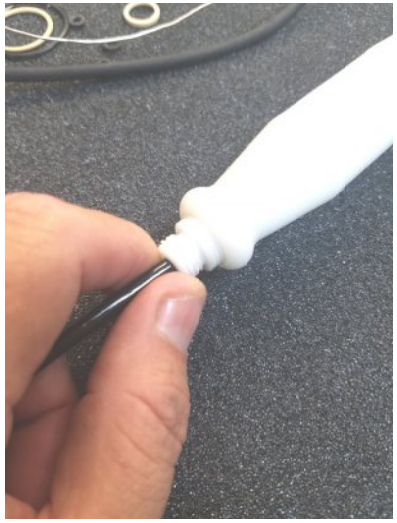
Once the crystal is off, you'll notice the PCB and the contact on a spring. Lift up the contact and be carful not to break the thermistor wires on the contact.



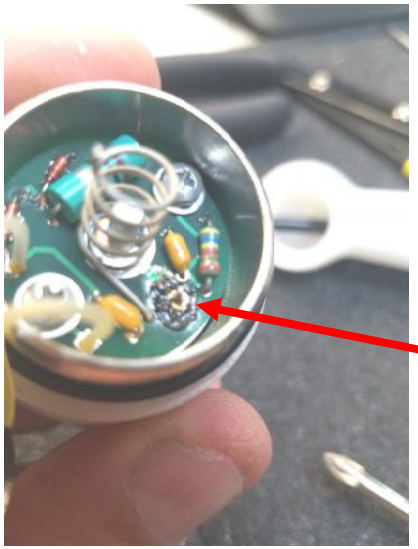
Gently remove the two screws that hold the PCB in place.

Lift up the PCB by the spring and set aside.

Loosen the screw about two turns. Screw the crystal back on tightly and then tighten the screw again to compress the assembly. *Don't use the crystal wrench to tighten.*



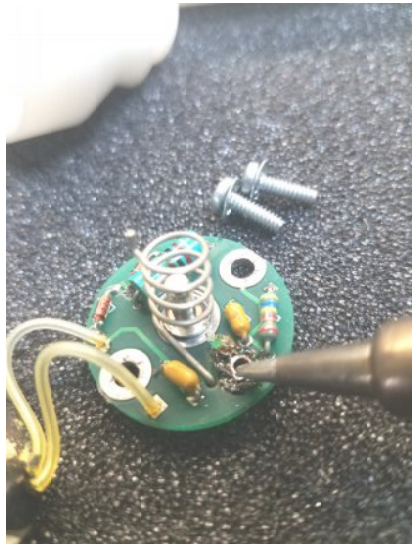
Pull on the wire and feed the crystal assembly toward the handle.



Once both screws are in place and the tinned center conductor is protruding through the hole.
Solder the center conductor to the PCB

Gently slide the contact over the spring and rod and line up the small hole that attaches to the spring. Compress it down a bit to stabilize.

Pour out the two standoffs and remove the “O” ring



De-solder the broken wire in the center lead connection on the PCB

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Notice the slotted cap screw in the crystal cup shield

Unscrew it and set it aside.

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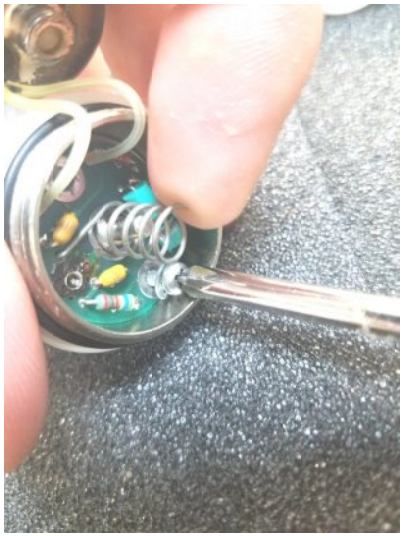
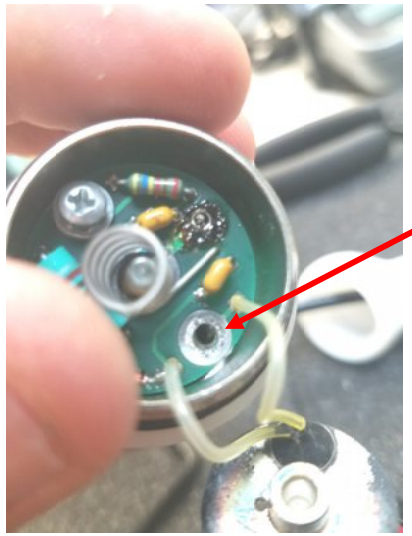


Install the first screw. don't tighten it all the way, it needs to be slightly loose to let the other stand off roll into place.



Line up the second standoff and gently install the screw.

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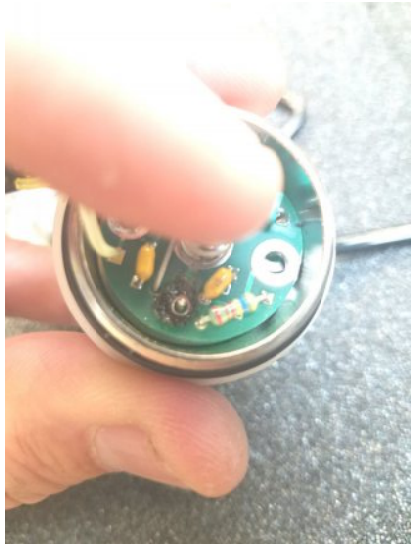
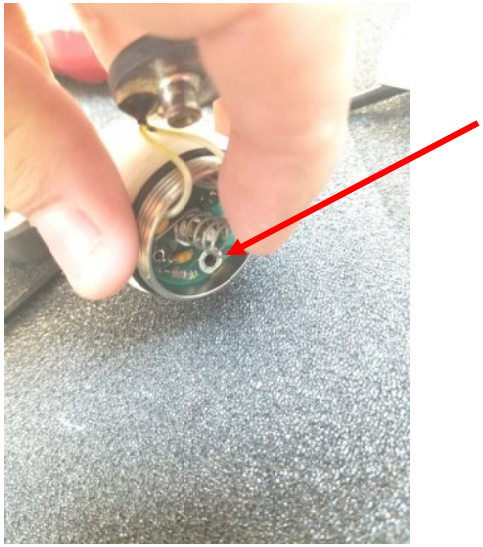


Slide the PCB over the center conductor and hold in place.



Tilt the head over and let one stand off slide into place.

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Use a dental pick or similar to remove the old ground shielding from the hole.

Open the package with the new cable and “O” rings, remove the wire tie.
Part number 100269

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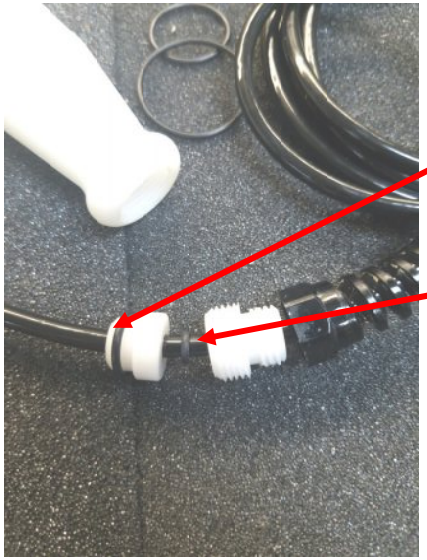
Note the contents of the kit, there are five different “O” rings.
Crystal thread
Cup to handle
Insert plug
Screw
Wire
Center conductor



Slide the threaded port and the hole plug on the cable and Note the assembly process and direction of the threads, plug and “O” ring setting.

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Tin the end of the center conductor

Drop in the stand offs, don't worry about lining them up, you’ll have to tilt the head and let it drift into place when inserting the screws

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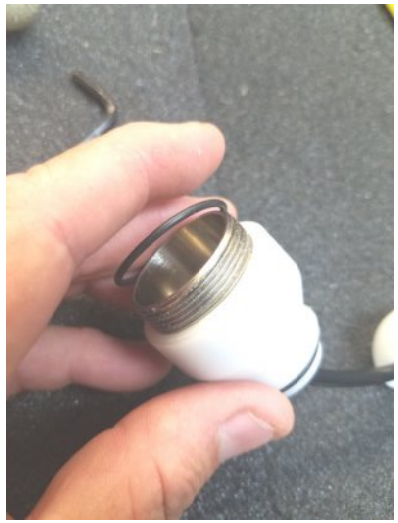
Make sure the “O” ring is on the plastic cup, if you forget, you can slide it up the back end of the head and roll it into place.



Slide on the crystal “O” ring over the threads.

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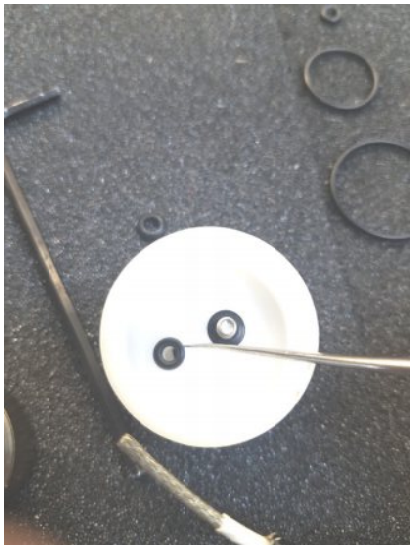
Slide the wire through the handle and gently thread on the parts, *don't tighten them down.*

Pull the wire about 4-6 inches out of the top to work on it.

Gently trim the shielding leaving about a 1/4 inch of cover. The shielding around the center Conductor will be used to ground the head under the cap nut in the crystal cup shield



Now, remove the old compressed “O”rings that hold the screw and surround the center conductor, and install the new ones. One smaller than the other, the smaller one over the center conductor hole.

Slide the wire through the plastic cup and then through the crystal cup shield.
Tighten the screw underneath firmly, push the shielding down into the hole while the center conductor is protruding out. Stuff it down with a flat blade screwdriver and install the cap nut and tighten, DONT nick the center conductor.

Now trim a small section of the center conductor off, approximately 3/16”