Revision date: 10-Oct-16

AUTHOR?

VM3COP55.04 V1000 Production Procedure

Parts list:

Part number:	Description:	Quantity:
1430284	V1000 Case with cut outs	1
1430286	V1000 Case seal kit (Set of 2)	1
1430287	V1000 Battery compartment	1
1430288	V1000 Battery contacts 4 x AA	1
1430295	V1000 Keypad membrane	1
1430296	V1000 Label set	1
1430297	V1000 Intensity control potentiometer	1
1430298	Duplas (hard top) black mat	1 1/4
1430300	V1000 PCB Assembly (Set of 2)	1
1430301	V1000 Transducer Mount	1
1430303	V1000 Transducer mounting screw	4
1430304	V1000 Transducer mounting washer	4
1430305	V1000 Transducer mounting nut/spacer	8
1430306	V1000 Transducer screw	4
1430307	V1000 Transducer washer	4
1430308	V1000 Transducer nut	4
1430309	V1000 Transducer interface cushion.	1
1430310	Connector - crimp socket	4
1430311	Connector – 3-pole (transducer)	1
1430312	Connector – 2-pole (power)	1
1430320	V1000 Transducer v2	1
1430325	Label – Warranty void if broken	1
	Tamper Evident Seal ? ?	

Tool list:	
Soldering iron	
Anti-static mat and wrist strap	
Wire cutters	
Pliers	
Screw drivers	
Spanners	
Crimp tool	

1430330
1430331

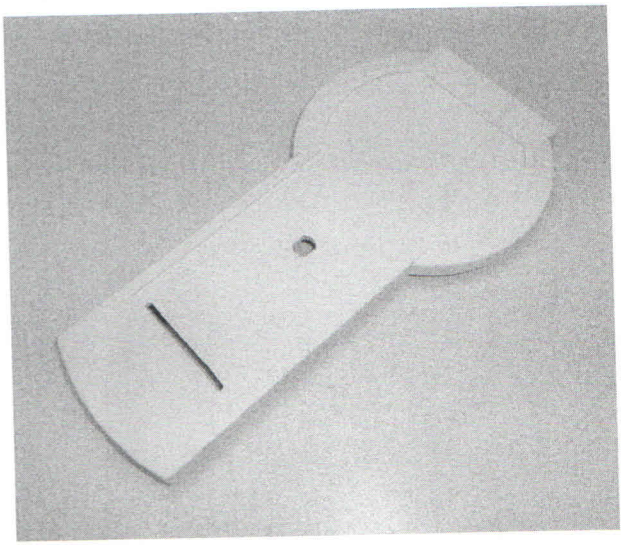
3+ Serial number label

Batteries ?

Upper case preparation:

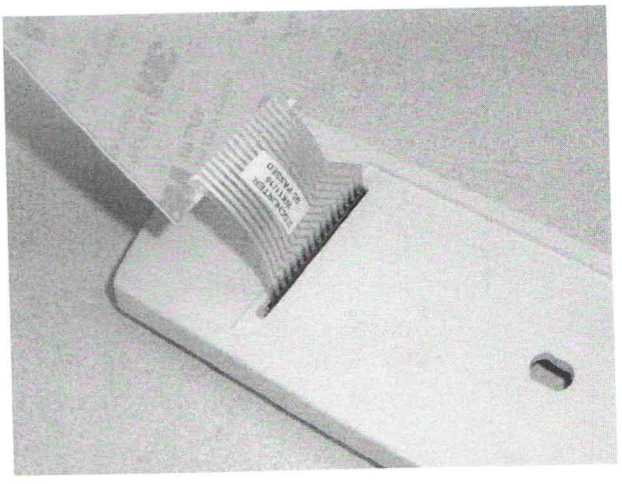
1. Clean any residue from the surface of the case.

1430284

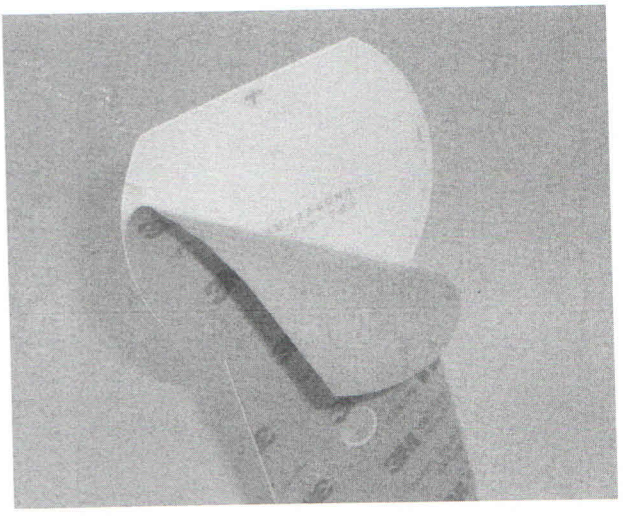


2. Feed the keypad connector through the slotted hole near the bottom of the case.

1430295

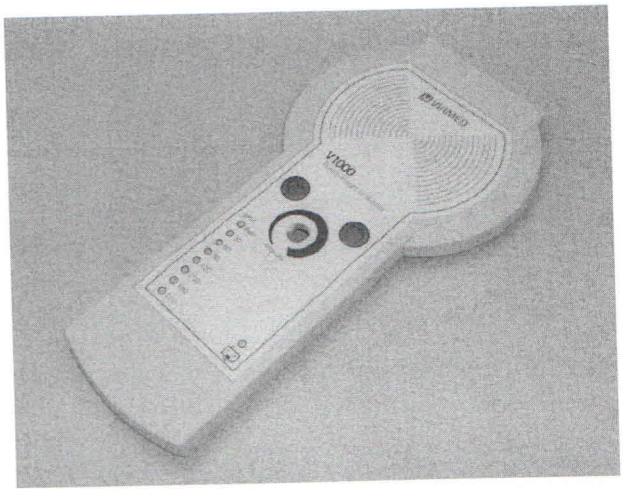


3. Remove the protective backing from the keypad to expose the adhesive backing.



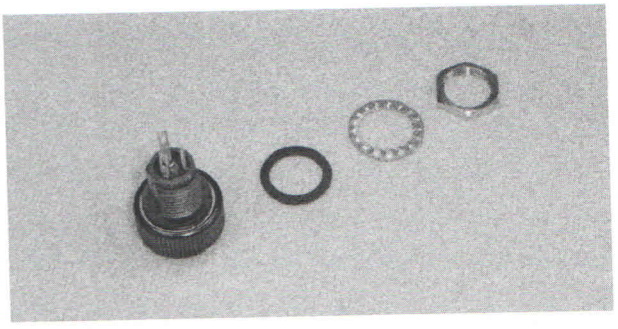
4. Centrally locate the keypad membrane into the recess on the front of the case. Ensure that the bottom edge of the keypad is as close to the bottom edge of the recess as possible.

5. When aligned correctly, press the keypad into place.



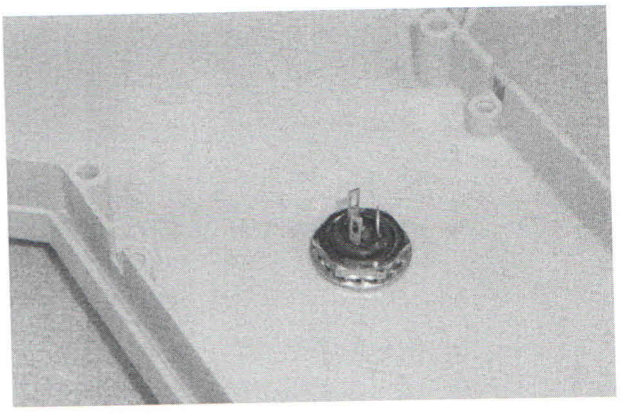
6. Place the rubber seal over the thread of the control pot.

1430297



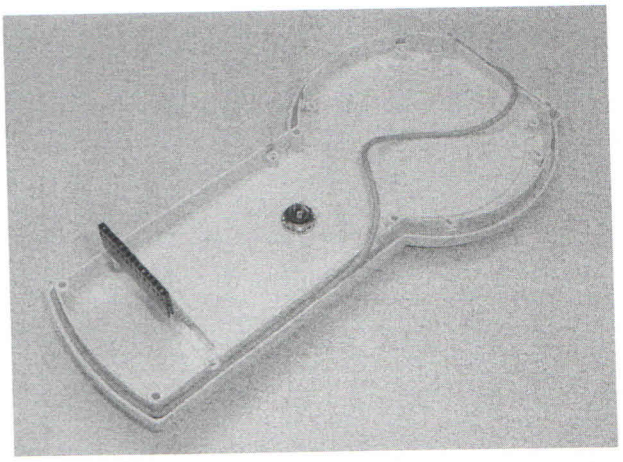
7. Push the control pot through the central hole in the front of the case. Ensure the control pot is correctly orientated (Large tab to the top side of the case).

8. Using the washer and nut, affix the control pot to the case.



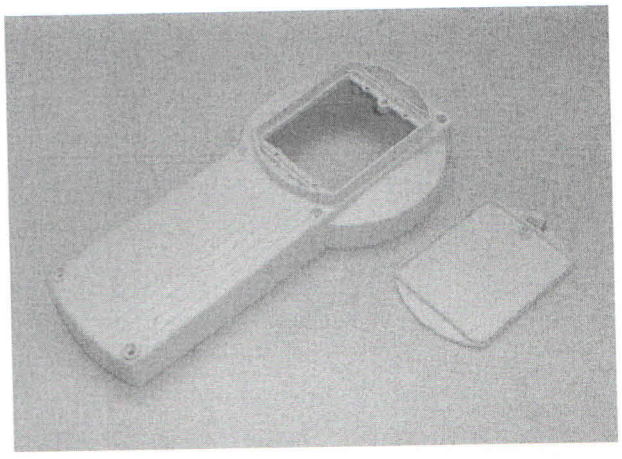
9. Place the case seal into the channel around the perimeter of the case and push into place.

1430286



Lower case preparation:

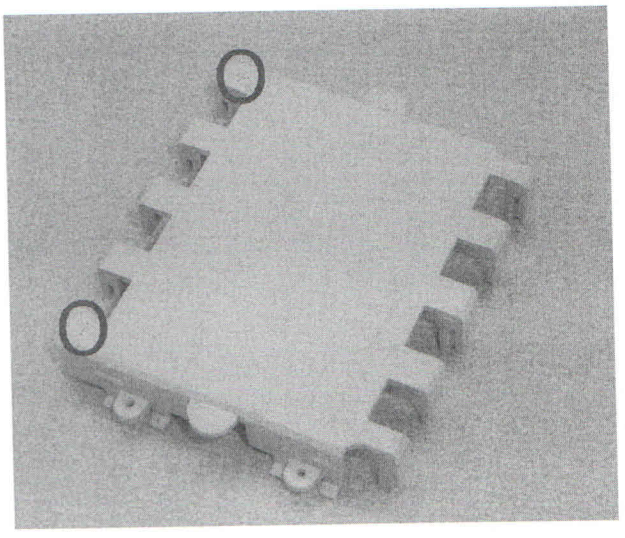
1. Remove the battery door from the lower case.



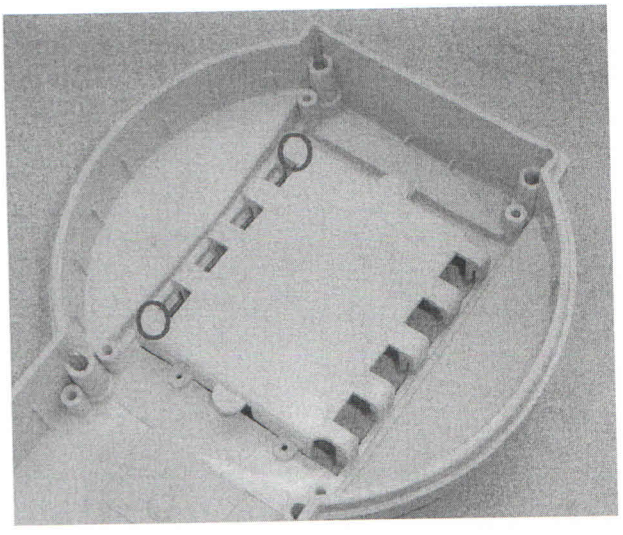
2. The battery compartment is fitted from the inside of the case.

   The polarity marks, in raised plastic on the battery compartment, should be on the left hand side of the inside of the case.

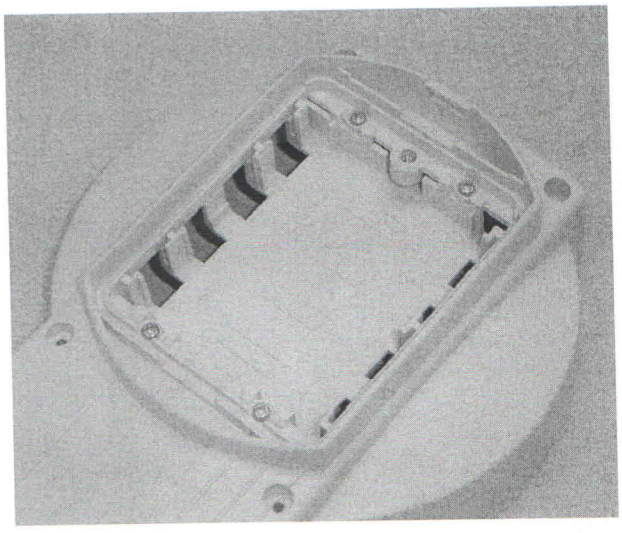
   1430287



3. Using the retaining hooks, located at each end of the battery compartment, insert the compartment into the lower case.

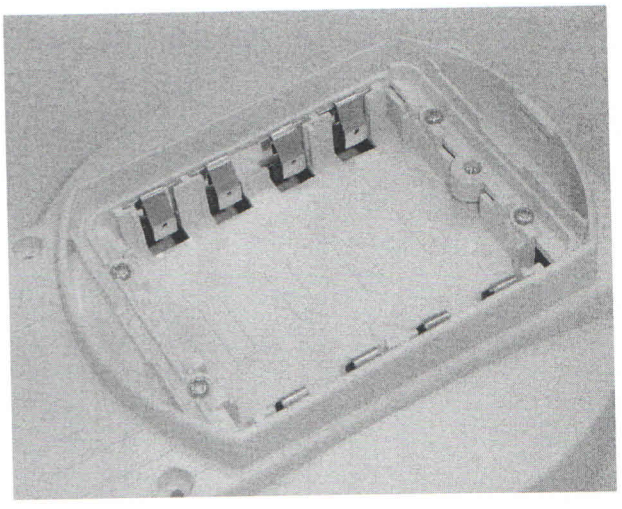


4. Using the four retaining screws, affix the battery compartment in place.



5. Insert the battery contacts from the back of the case.

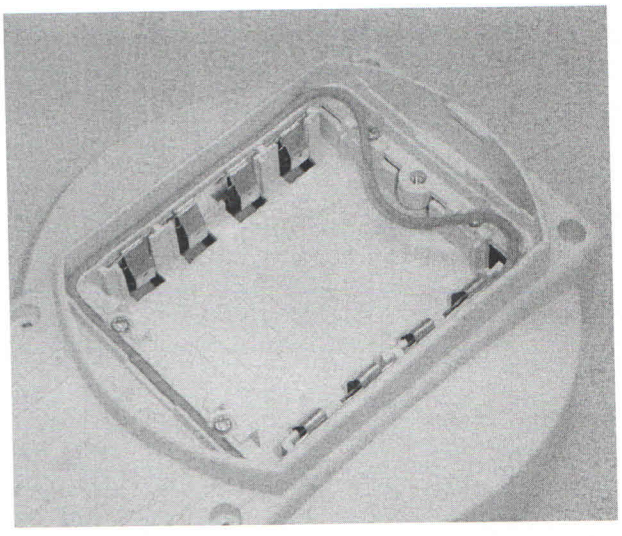
1430288



6. Place the battery compartment seal into the channel around the perimeter of the battery compartment and push into place.

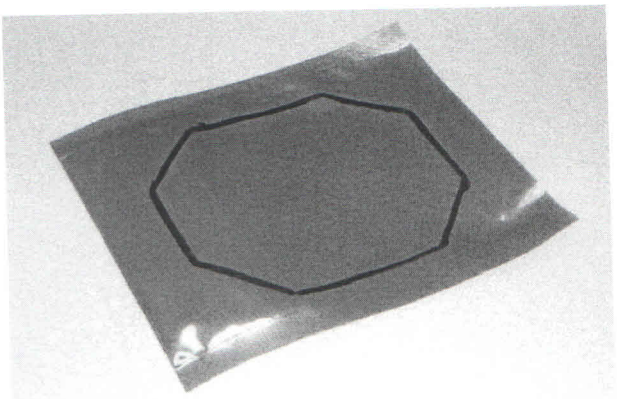
1430286

ONE OF TWO SEALS

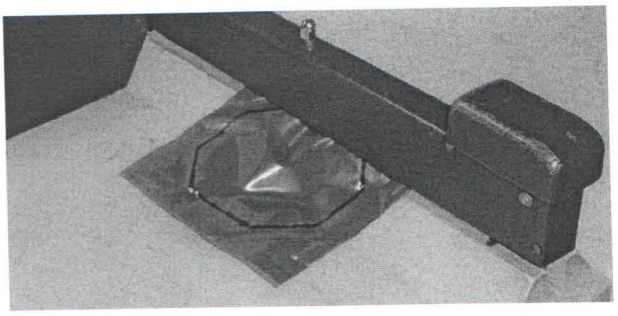


Transducer interface cushion preparation (PN: 1430309):

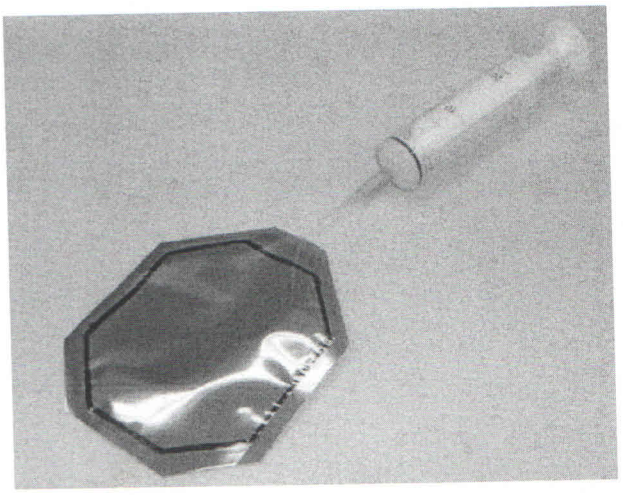
1. Using a template, mark out and cut an interface cushion.



2. Seal the edges of the transducer cushion, leaving a small gap for filling.



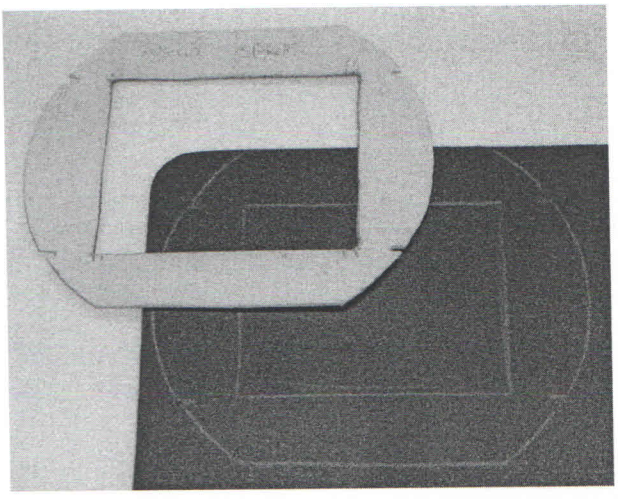
3. Fill the transducer cushion with water, leaving as little air in the cushion as possible, and seal.



4. Trim the excess material from the outline.

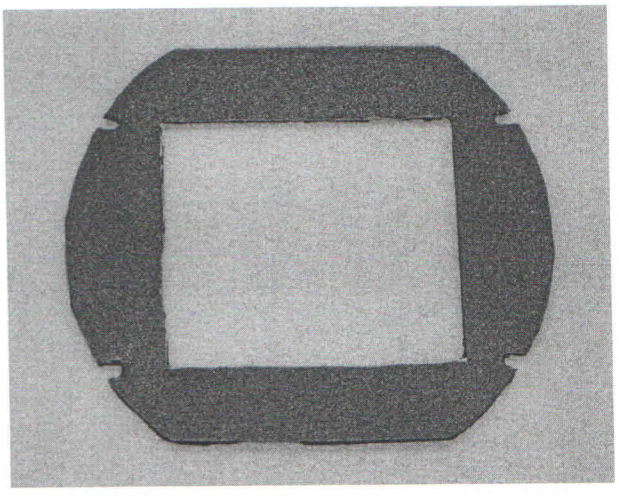
Transducer surround preparation:

1. Using the template, mark out and cut a transducer surround from hard-backed foam.



1430298

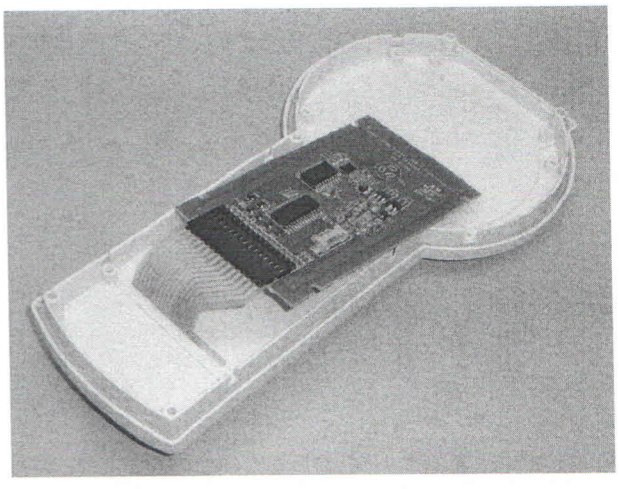
Use 1/4 of the mat.



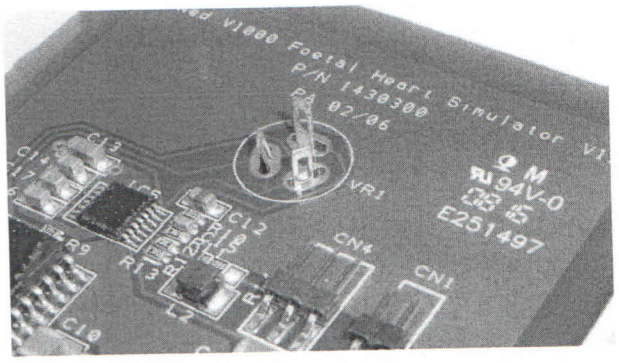
Assembly:

1. Connect the keypad connector to the PCB.

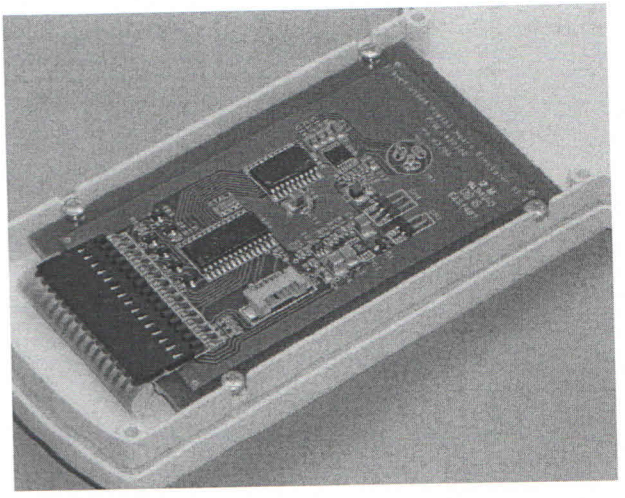
1430300
(SET OF 2 BOARDS)



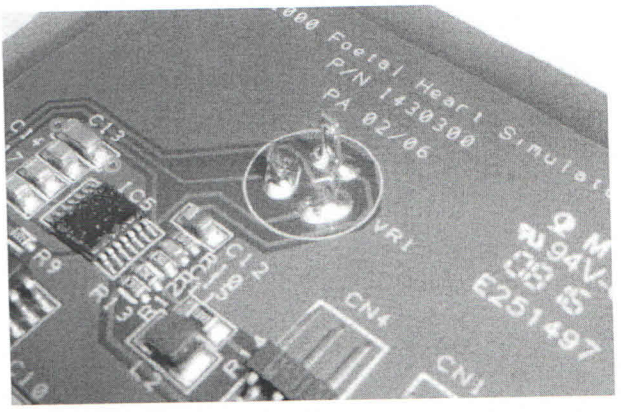
2. Locate the PCB over the control pot, allowing the control pot tabs to pass through the three holes at the top of the PCB.



3. Using the PCB retaining screws, affix the PCB into place.



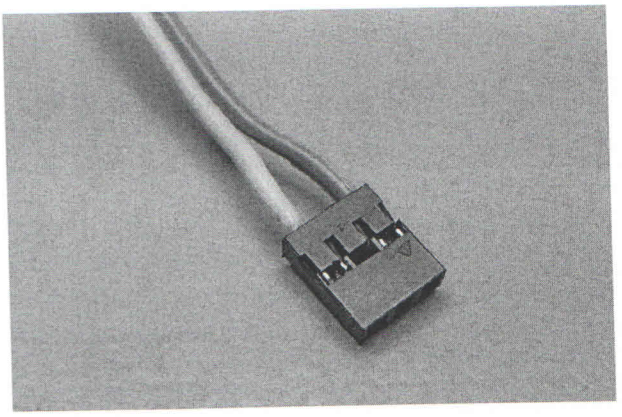
4. Solder the three control pot tabs to the contacts on the PCB.



P/N ?

5. Cut a length of ribbon cable to 75mm. Strip 2mm of plastic from each wire, and tin the wire.

6. Strip 2mm of plastic from each wire. Affix a 3 pin M22 connector.



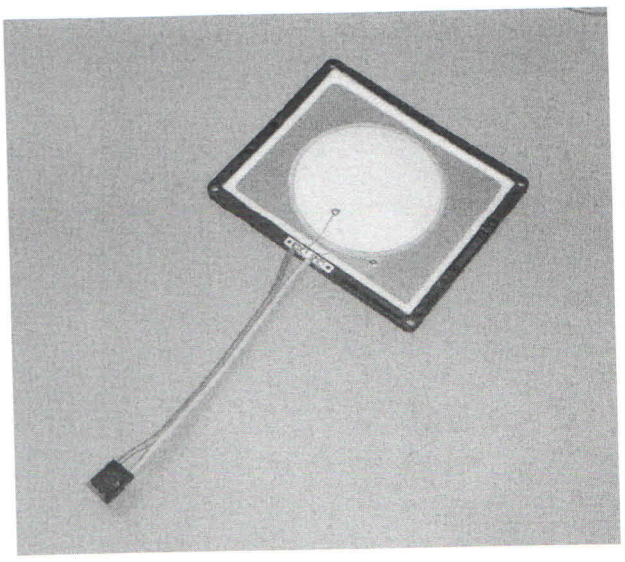
1430311

2x 1430310

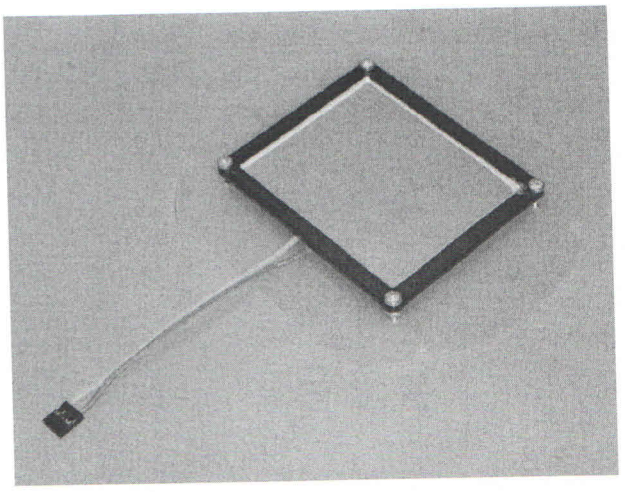
Crimp the wires.

7. Solder the cable to the transducer.

1470301

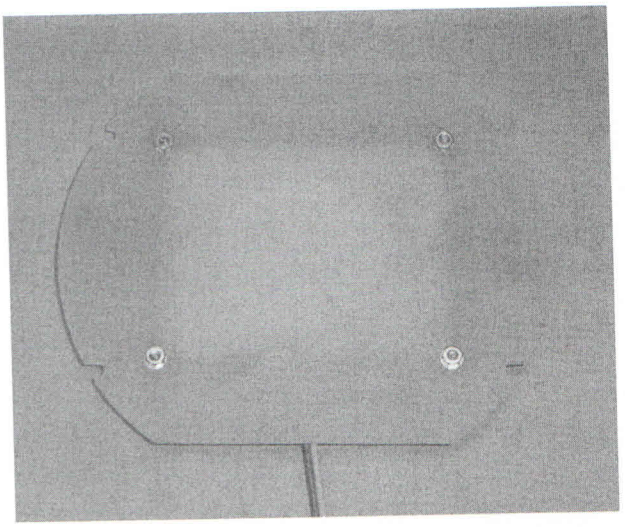


8. Mount the transducer to the transducer mounting board. Space the transducer away from the board using a nut.



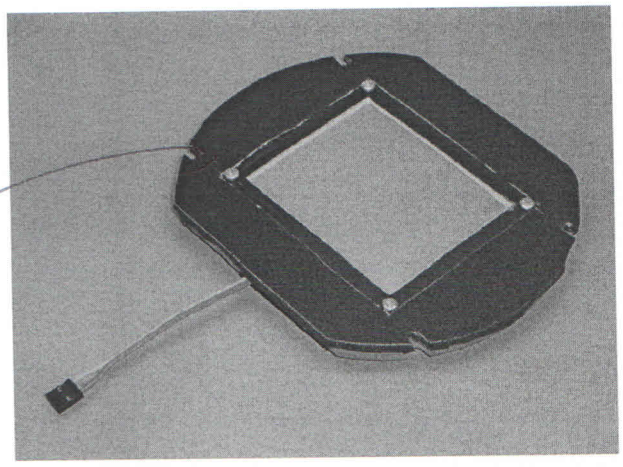
9. Affix into place using a bolt, washer and nut

4x 1470303 1470306
4x 1470304 1470307
4x 1470305 1470308



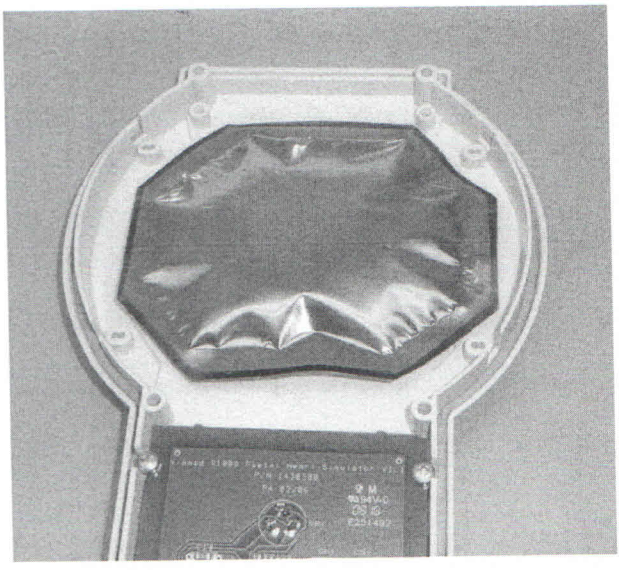
10. Using a small amount of double sided tape, affix the transducer surround to the transducer mounting board.

WHICH WAY ROUND?

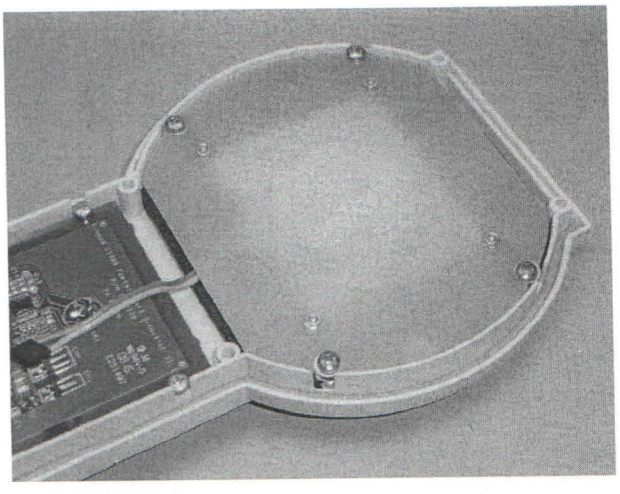


P/N?

11. Using double sided tape, affix the transducer interface cushion to the inside surface of the upper case.

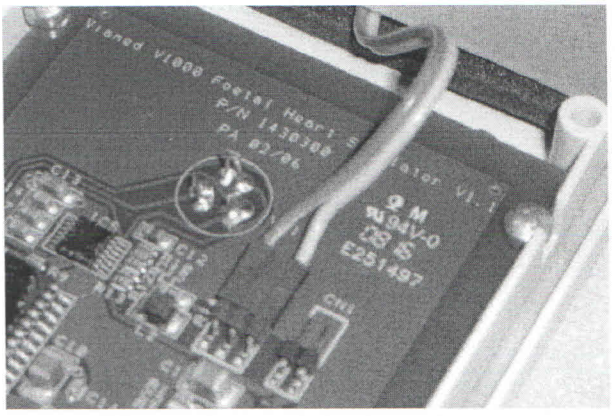


12. Place the transducer assembly over the interface cushion, with spacing nut on the underside of the mounting board, and fix into place using the mounting screws.

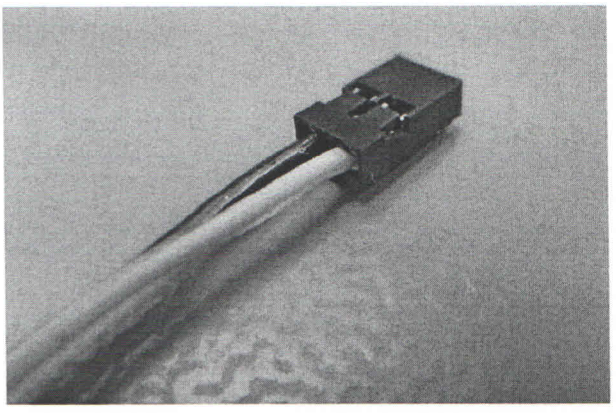


4x 1430703
4x 1430704
4x 1430705

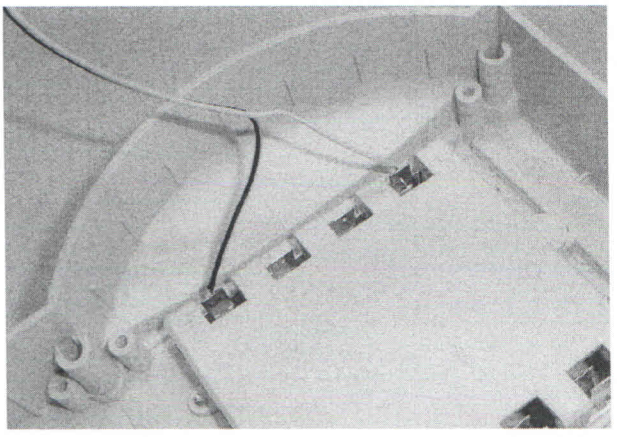
13. Connect the transducer assembly to the PCB using the 3 pin connector.



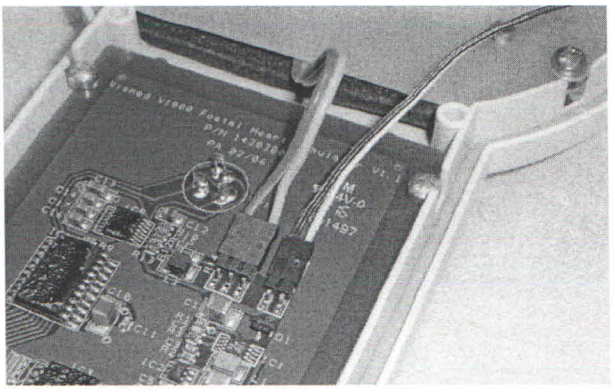
14. Cut a length of ribbon cable to 150mm. Affix a 2 pin M22 connector.



15. Solder the ribbon cable to the battery contacts.

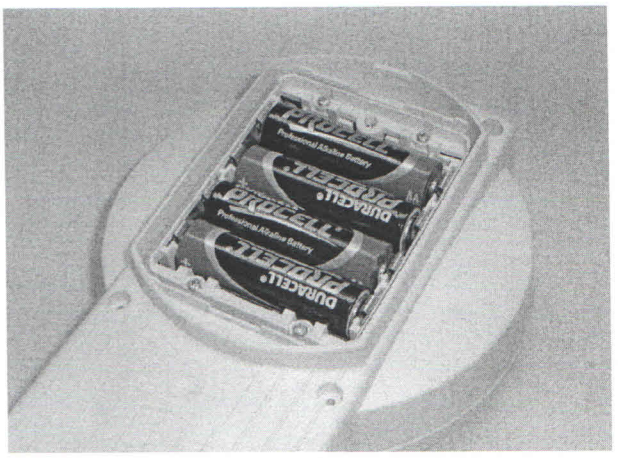


16. Connect the 2 pin M22 connector to the 2 pin connector on the PCB.



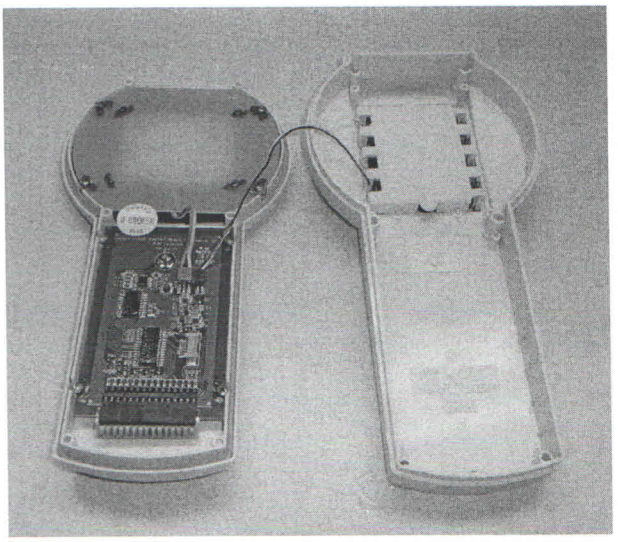
17. At this point, test the unit. Insert 4xAA batteries and fix the case halves together.

18. Test the unit functions as expected. Refer to the QA procedure for the method.



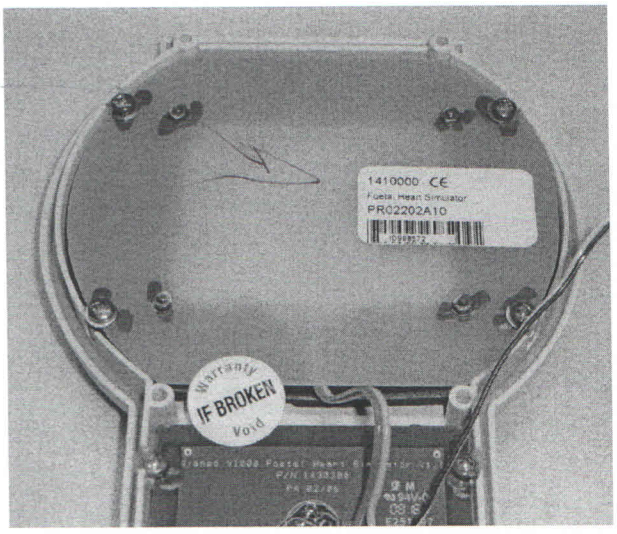
19. When the unit is working as expected, use Tamper Evident Seal on the exposed nuts and screw heads.

1430325

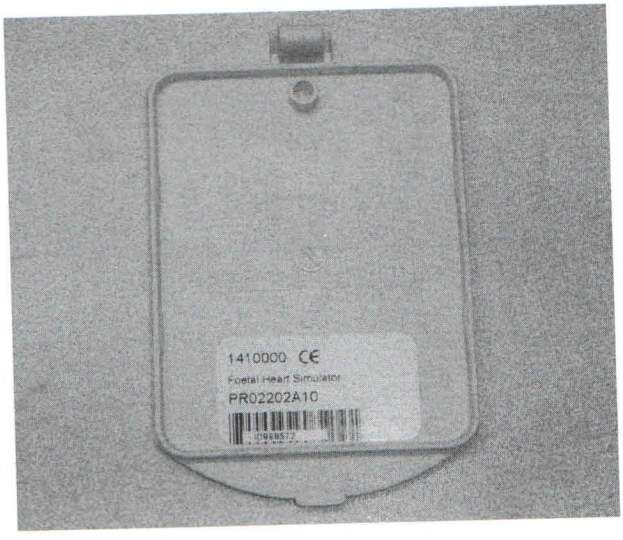


20. Affix a serial number label to the back of the transducer assembly.

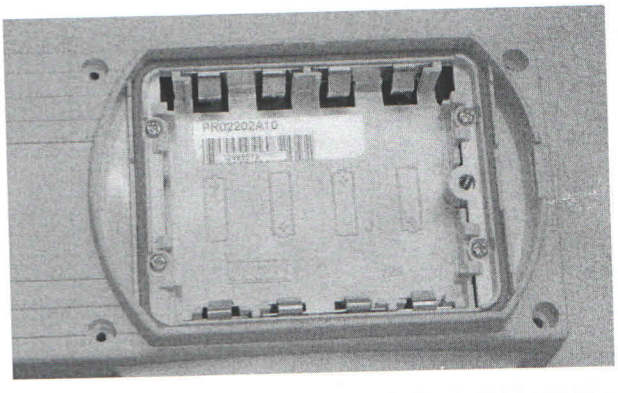
21. Affix a 'Warranty Void' label between the transducer assembly and the main PCB.



22. Affix a serial number label to the inside of the battery compartment door.

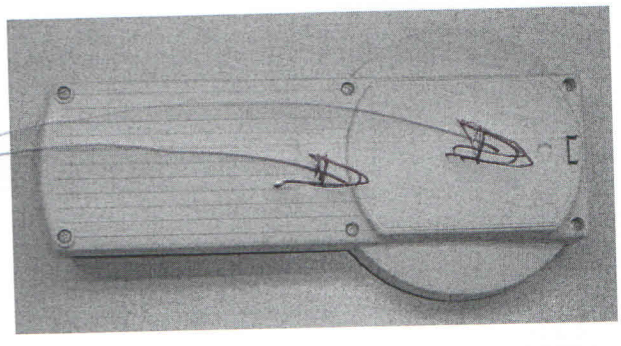


23. Affix a trimmed serial number label to the inside of the battery compartment.



24. Fully assemble the unit, using the case screws.

CE + rear Labels
1430296



25. Affix a 'Calibration Void' label to the top of the unit, between the case halves.

26. Insert 4xAA batteries and test the unit. If the unit is working, then it may be submitted for QA.

P/N ?
Is this the correct Label?

QA procedure?