

CLOSE, GLUE & FINISH

SLA & UV TECHNOLOGY • ITE PRODCUTION

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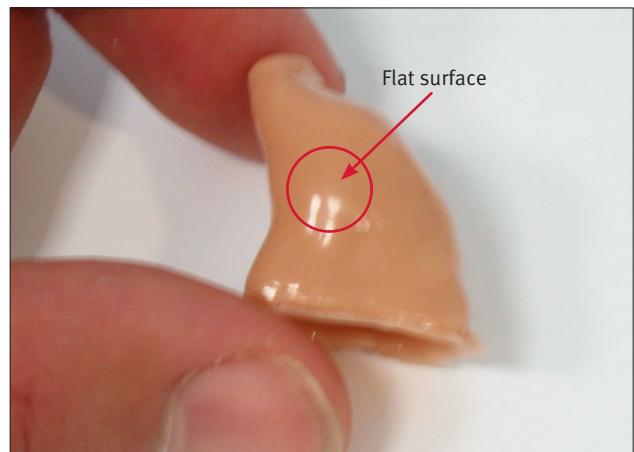
Common materials for Close, Glue & Finish

Description	Code No
Glue, Loctite 420 (20 gr.)	794-30-035-06
Clamps	890-21-019-01
Faceplate cutter, spiral	890-20-142-09
Tape, transparent	890-03-058-01
Optic Fiber set, complete (220V)	890-21-517-04
Pre-cut tape, 10 battery size (100 pcs.)	775-20-300-10
Pre-cut tape, 312 battery size (100 pcs.)	775-20-301-11
Miller, cylindrical	890-20-042-08
Miller, conical	820-15-036-03
Miller, conical (small)	890-20-125-08
Holder for sandpaper	890-21-317-02
Sandpaper, grit 120, width 15 mm, brown	890-20-136-01
Sandpaper, grit 180, width 15 mm, green	890-20-154-04
Buffing mops	890-03-026-02
Polishing mops	890-03-027-03
Wax Pumice 949, for first buffing	788-90-006-05
Wax Atol 6, for second buffing	788-90-005-04
Transparent test tool	Refer to the style specific code no. on the Introduction Program
Burr 1.0 mm	890-20-031-05
Acrylic modelling paste, red (20 gr.)	780-30-092-07
Acrylic modelling paste, blue (20 gr.)	780-30-093-08
Acrylic Emodelling paste Xpress beige (20 gr.)	780-30-097-00
Pull out string	890-01-501-04
Drill 1.4 mm	890-20-113-04
Drill, long spiral, 0.6 mm	890-20-143-00
Drill, short spiral, 0.6 mm	890-20-127-00
Brush for lacquering	825-18-097-04
Lacquer, hard coat, LP/H, 100 ml	795-10-008-04
Lacquer, hard coat, Sonopal A1, 100 ml	795-10-010-08
Lacquer, soft coat, LP/W, 100 ml	795-10-009-05
Label, red dot (500 pieces)	586-01-067-04
Label, blue dot (500 pieces)	586-01-902-05
Label, white dot (500 pieces)	586-01-068-05
Tray, white, disposable (250 pieces)	890-01-148-05
Depth gauge	Refer to the Product specific Spare Parts List
“Foam” suspension, receiver (250 pieces)	540-97-063-05
Motor	890-21-313-08
High Knob for volume control	Refer to the Product specific Spare parts list
Protection grid for microphone (100 pieces)	890-01-230-00

Laser serial number production



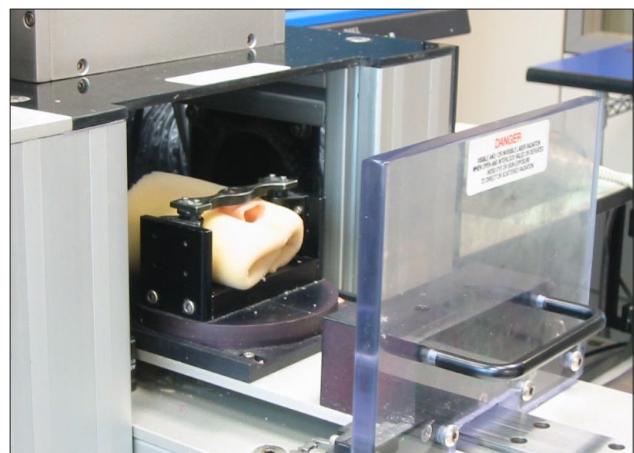
1. Load logo file in the laser machine. If the laser software for automatic generation of the serial number is installed, then scan bar code for order number.



2. To obtain the best result, laser mark on a flat surface of the shell.



3. Place the shell into the fixture. Be sure that the shell is correctly secured in the fixture otherwise the marking will not be readable.



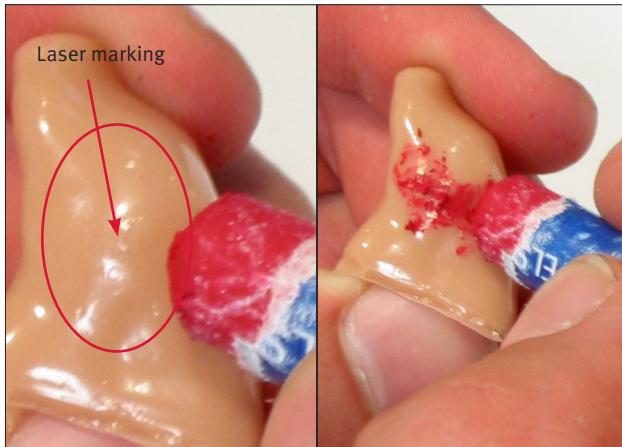
4. Close the laser machine drawer/door. Scan the necessary bar code(s) on the Work order with the bar code laser.



5. Press "Start write" button on the laser machine. The laser marking will automatically take place.



6. When the marking is done remove the shell from the fixture.



7. Add oil pastel (or ink) colour to the laser marking.



8. Alcohol can be added to the tissue for easier cleaning.
Remove excess of colour with a tissue.

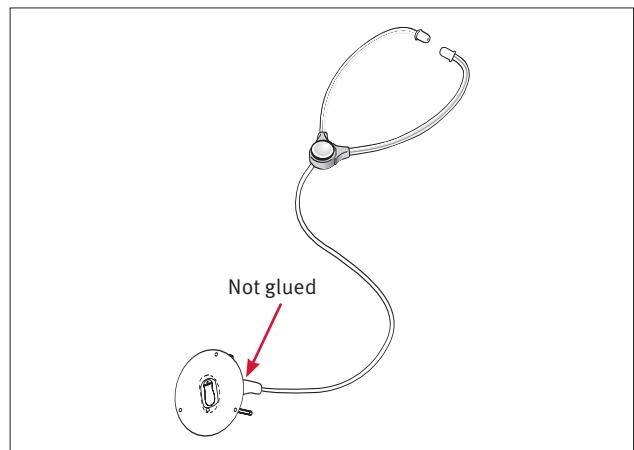
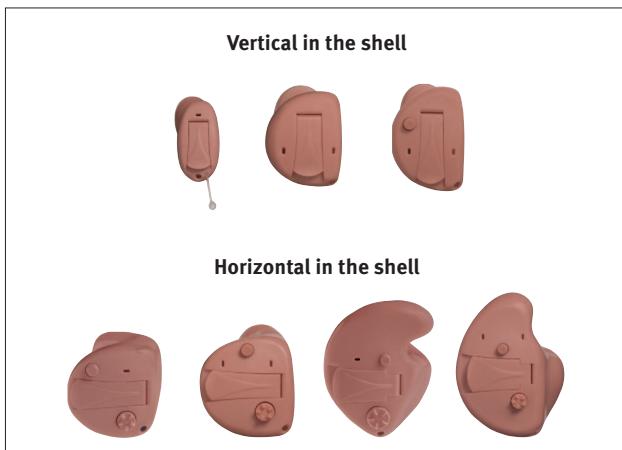


9. Check that the serial number, model and company name on the Work order corresponds to the shell marking.



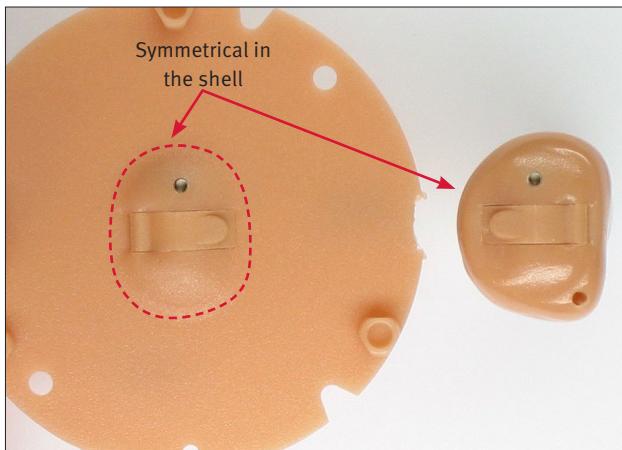
10. Check for correct laser marking: Right, Left, style and for legibility (clear marking).

Closing – Faceplate Solution



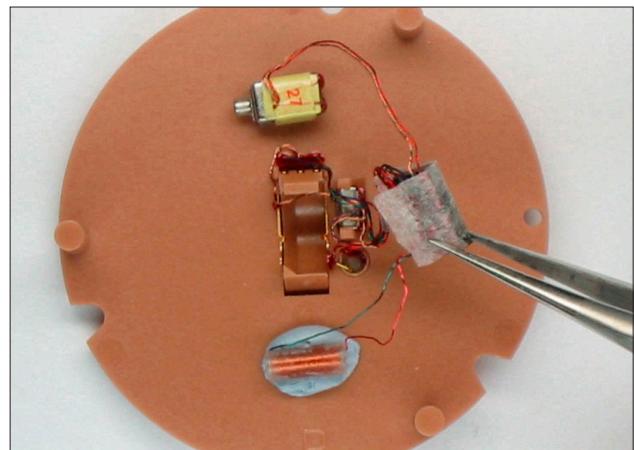
1. To make instr. smaller, it is best to mount the batt. door vertical in the shell. This is, though, only possible for CIC/MC/ITC/ ITE & ITE T styles. For optimal acous. performance (the mic. inlet must be as free as pos.), the batt. door, in the 2XX styles and Dual-mic styles, have to be mounted horizontal in the shell.

2. Perform listen test *before gluing* faceplate to the shell. The receiver suspension-tube must still be kept long (refer to the ITE WI “Assembly – Listening test” for more info).

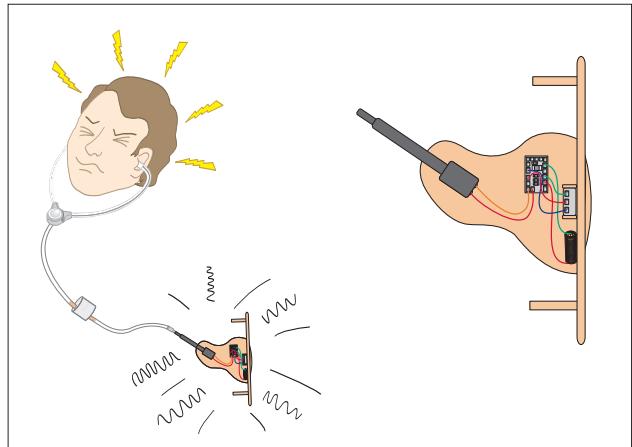
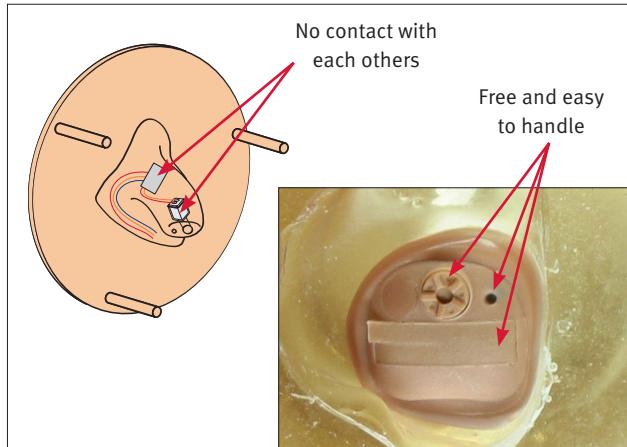


3. Always mount the faceplate as centred (symmetrical) as possible in the shell.

In case of binaural: The faceplate position in the shell must be the same for both instrument.



4. Carefully lift up all components, amplifier/receiver and telecoil from the faceplate. Being careful with the litz wires.

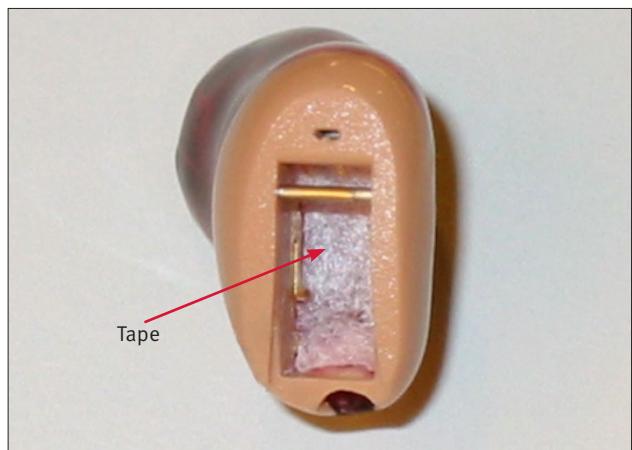
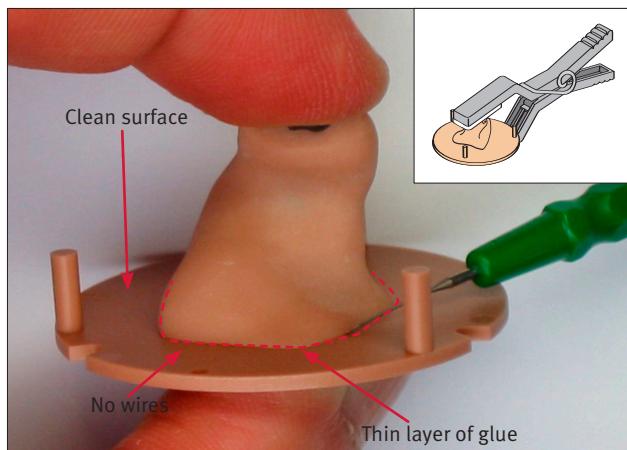


5. While closing the instrument, be aware:

- Components do not touch each others (microphone/amplifier/receiver/telecoil). Telecoil and Receiver placement, refer to ITE WI “Assembly – Telecoil assembly” and “Assembly – Receiver assembly”.
- Microphone inlet is free.
- Controls (switch, VC, pull out string etc.) are easy to handle.
- Battery drawer closes completely with battery inserted.

6. **Power instrument** might be difficult to close because of feedback due to the high gain and the little space in the shell. To avoid feedback, be sure that:

- Receiver is completely free in the shell (refer to ITE WI “Assembly – Receiver assembly”).
- Components do not touch each others (microphone/amplifier/receiver/telecoil).



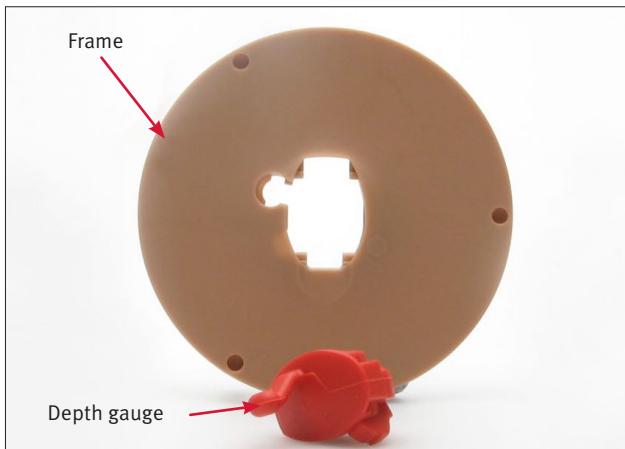
7. When gluing faceplate to shell:

- Keep battery drawer open.
- Make sure that the surface of the faceplate is clean.
- Be careful not to glue any wires to the shell.
- Do not press faceplate to shell too hard. Let glue enter between the two parts.
- Apply a layer of glue all around the faceplate/shell.
- Use clamps to hold and press faceplate against the shell and let the glue harden for few minutes.

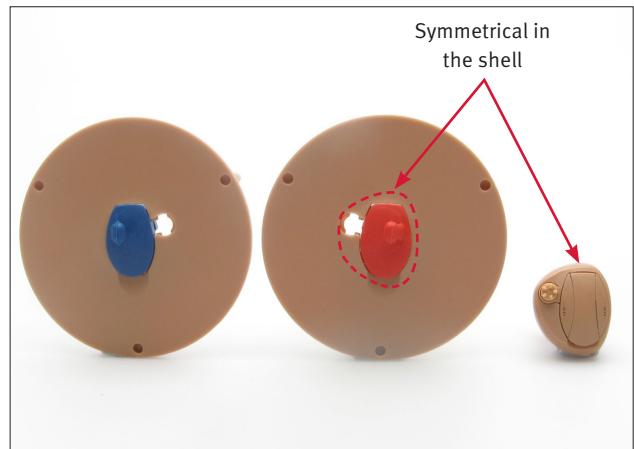
After gluing refer to Faceplate cut etc. page 15.

Closing – Carrier Solution

ITC D



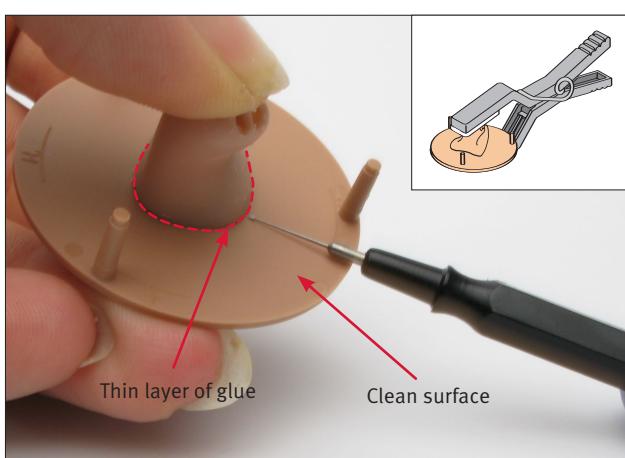
1. Mount the depth gauge on the frame.



2. Always mount the frame as centred (symmetrical) as possible in the shell.

In case of binaural: The frame position in the shell must be the same for both instrument.

Refer to Direct instrument page 14 to see the position of the frame.



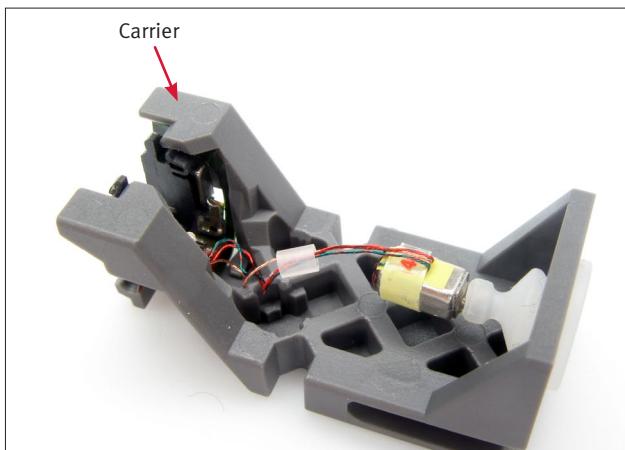
4. When gluing frame to shell:

- Make sure that the surface of the frame is clean.
- Do not press faceplate to shell too hard. Let glue enter between the two parts.
- Apply a layer of glue all around the frame/shell.
- Use clamps to hold and press faceplate against the shell and let the glue harden for few minutes.

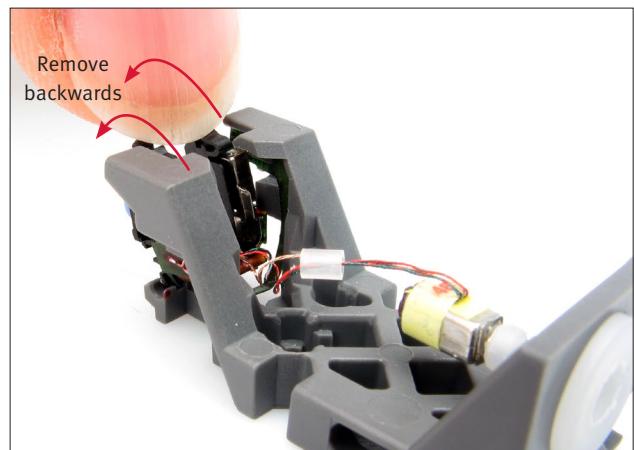
After gluing refer to Faceplate cut etc. page 15.

Note: The instrument must be lacquer or buff and polish before assembly.

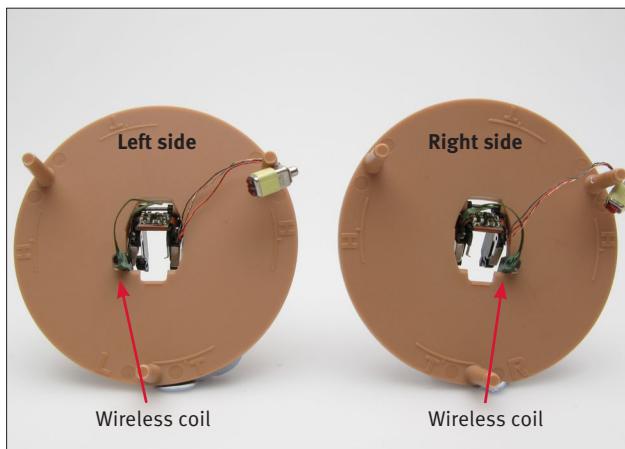
How to place electronic



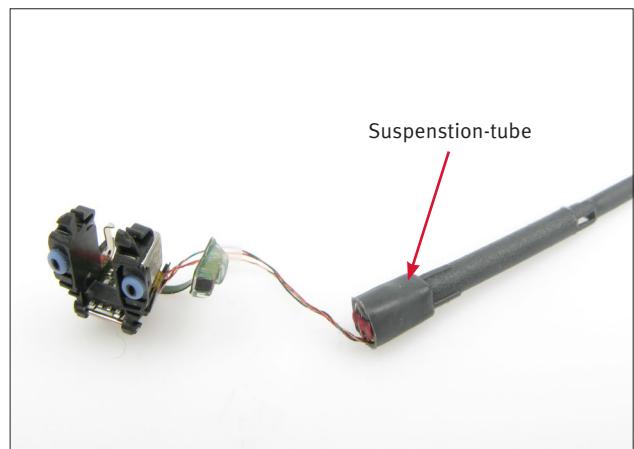
1. Remove receiver from the carrier.



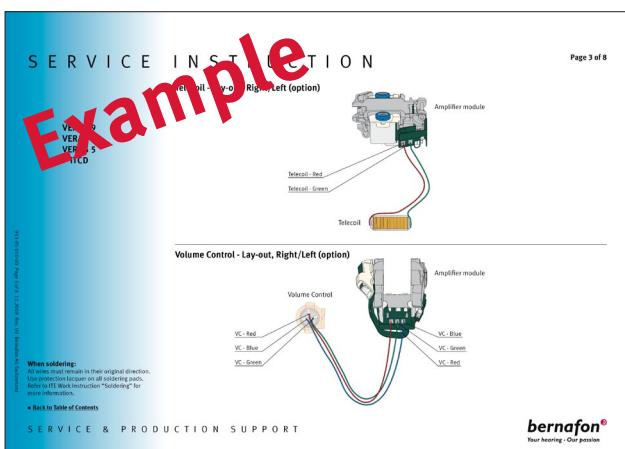
2. Remove the unit from the carrier.



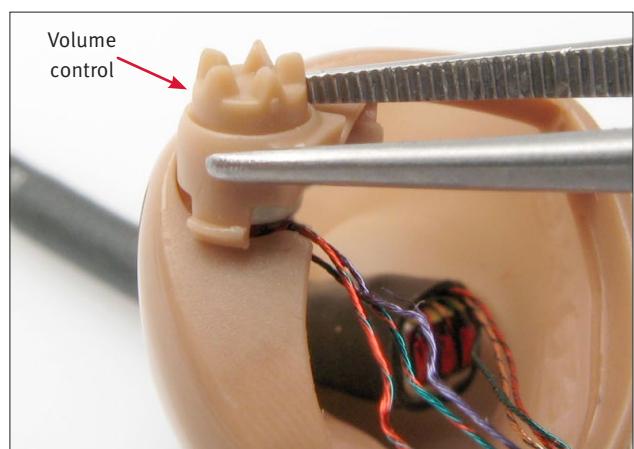
Note: How to identify the Unit? See where the Wireless coil is placed in the frame.



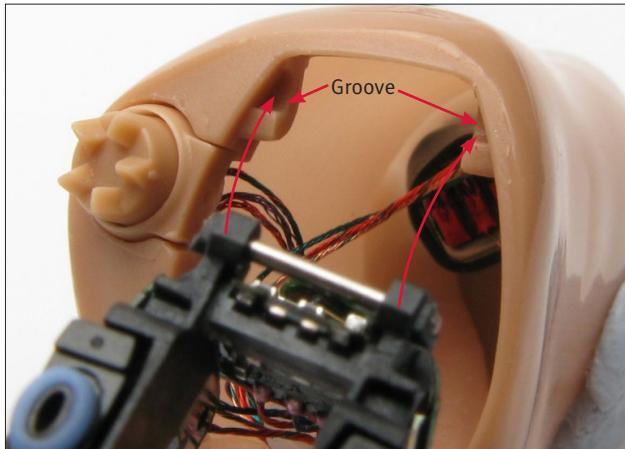
3. Mount the suspension-tube on the receiver. If the instrument is with VC refer to step 4. If it is without VC refer to step 7.



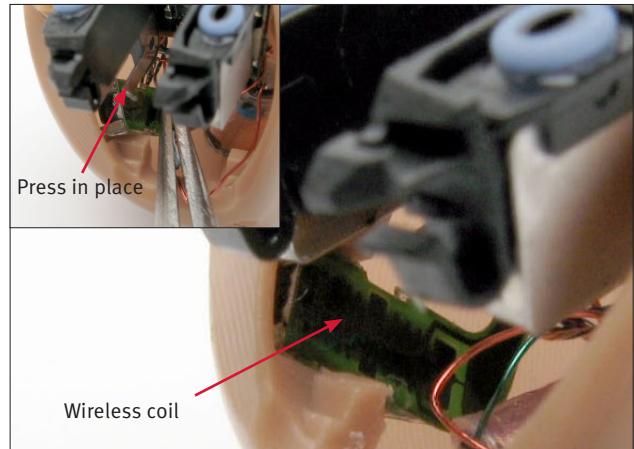
4. If the instrument is with volume control solder the VC to the amplifier, refer to Service instruction.



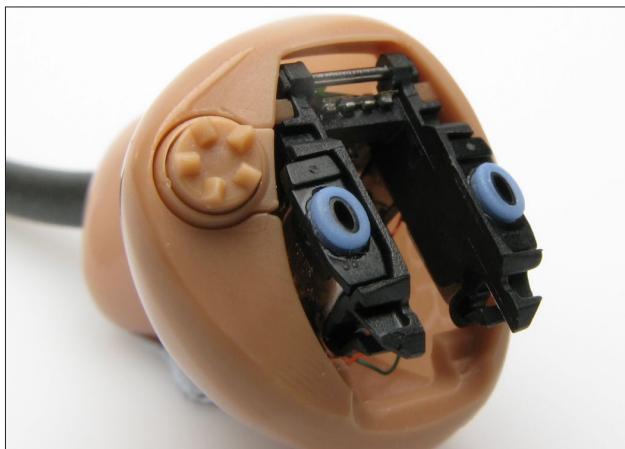
5. Mount the volume control in the grooves for the VC.



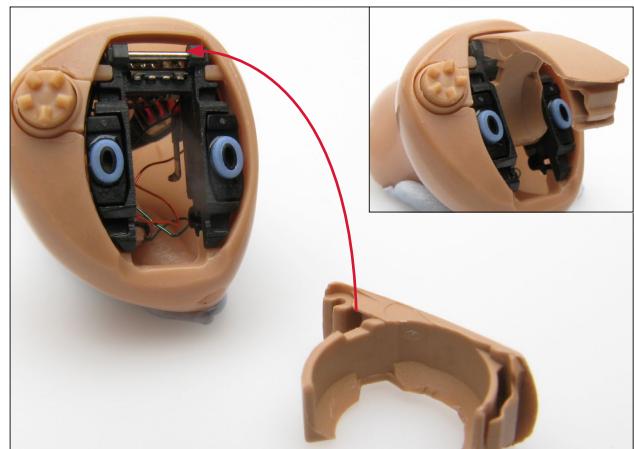
6. Mount the suspension-tube/receiver in the shell.
Refer to ITE WI "Assembly – Receiver Assembly".
Place the unit in the grooves on the shell.



7. Place the wireless coil in the grooves for the wireless coil.
Do not glue the wireless coil.



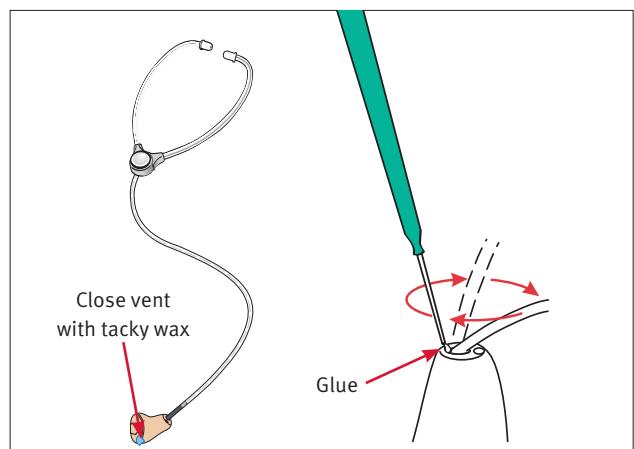
8. Press the unit down until it "click".



9. Mount the battery door.



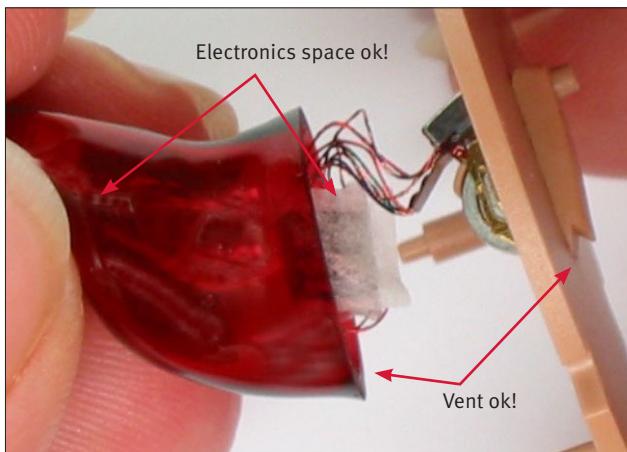
10. Place the microphone cover in front of the microphone.



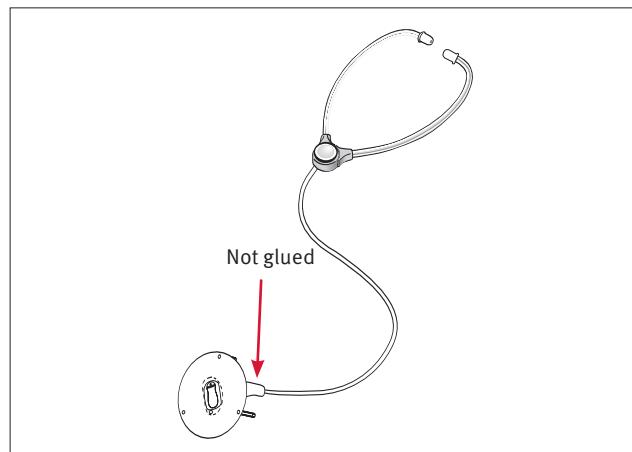
11. Perform Listening test, and glue suspension-tube all around the receiver hole. Pre-cut tube if necessary.
(Refer to ITE WI "Assembly – Listening Test" and "Assembly – Receiver assembly" for more information). Proceed to wax protection insertion. (Refer to ITE WI "Assembly – Wax protection systems" for more information).

Closing – Unit Solution

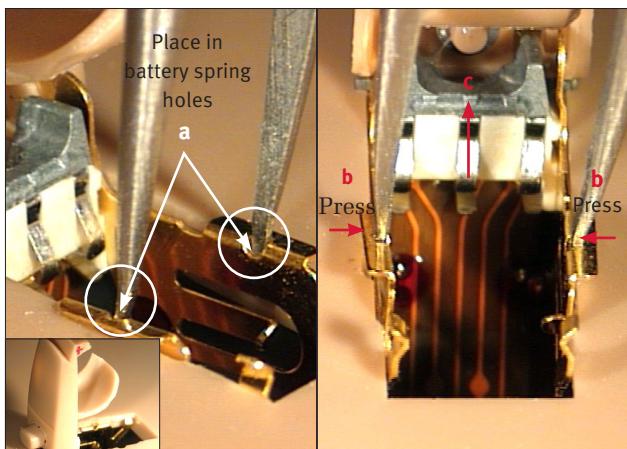
CIC/MC



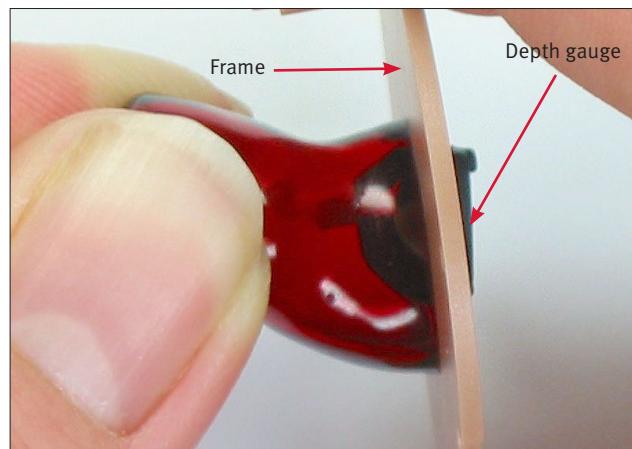
1. Use the Kit assembly to check electronics/vent placement in the shell/frame.



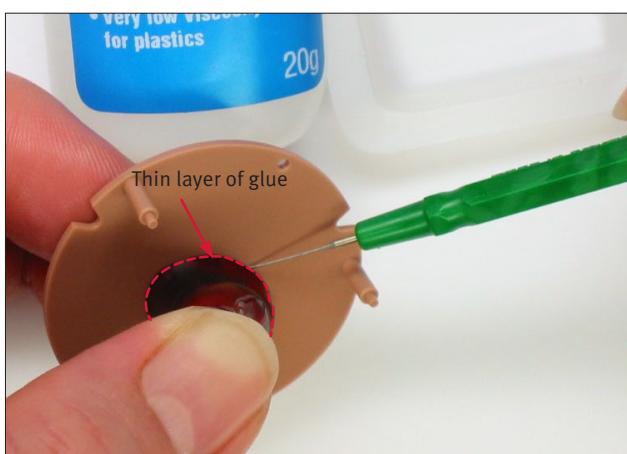
2. Perform listening test.



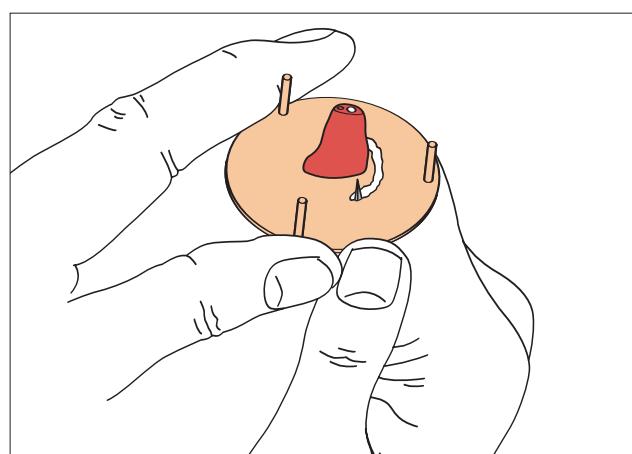
3. Dismount the unit (with battery drawer) by:
 - a. Inserting tweezers into battery spring holes/grooves in the frame.
 - b. Hold and press them gently towards each other.
 - c. Pull them up until unit release.



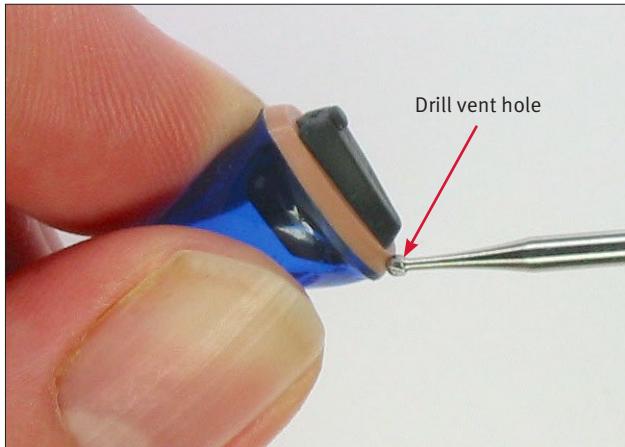
4. Mount depth gauge in the frame. Position frame/depth gauge on the shell.



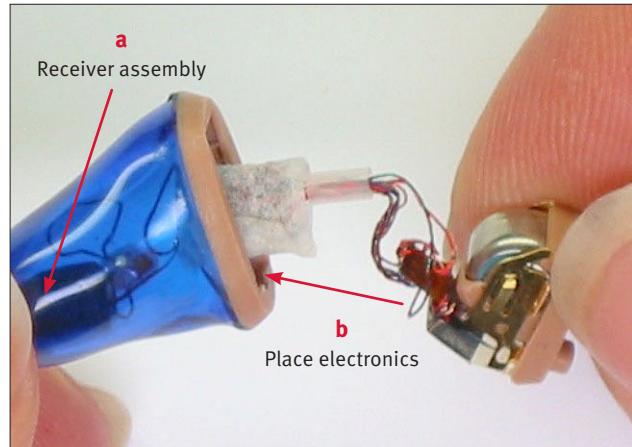
5. Glue shell to the frame.



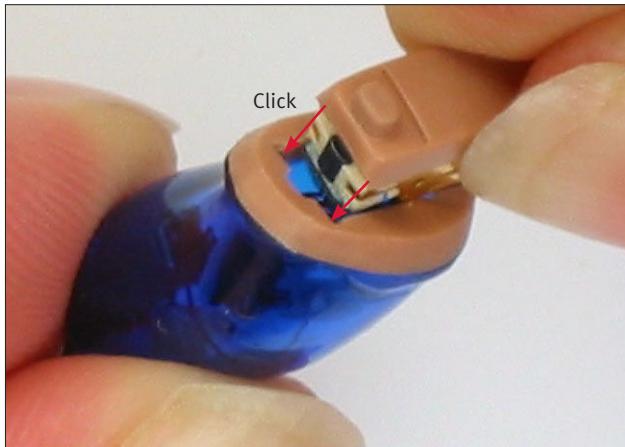
6. After gluing refer to Faceplate cut etc. page 15.



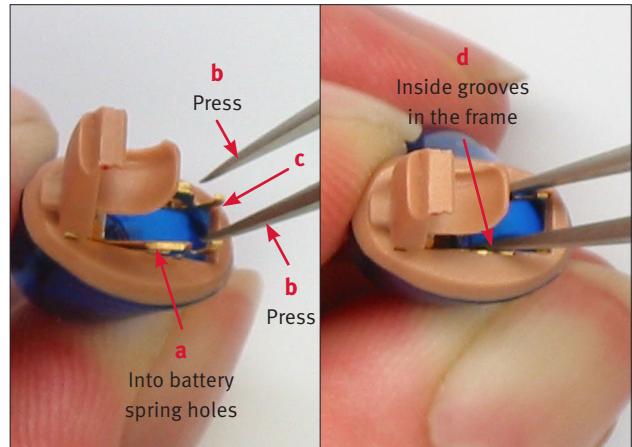
7. After cutting/finishing the frame (and vent) proceed to buff and polish or lacquer.



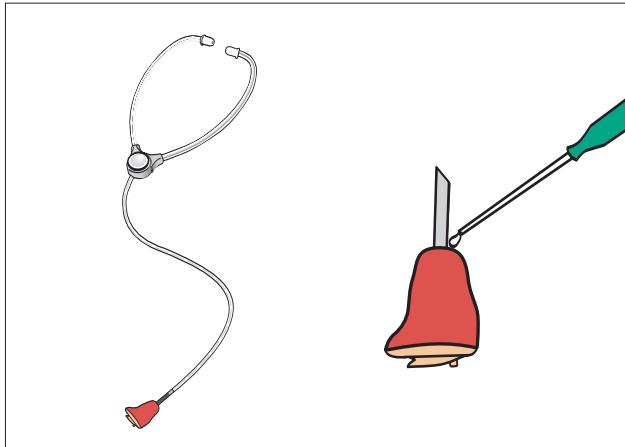
8. After the shell is polished you can proceed to the assembly. **a.** Mount receiver in the shell (refer to ITE WI "Assembly – Receiver assembly"). **b.** Place electronics.



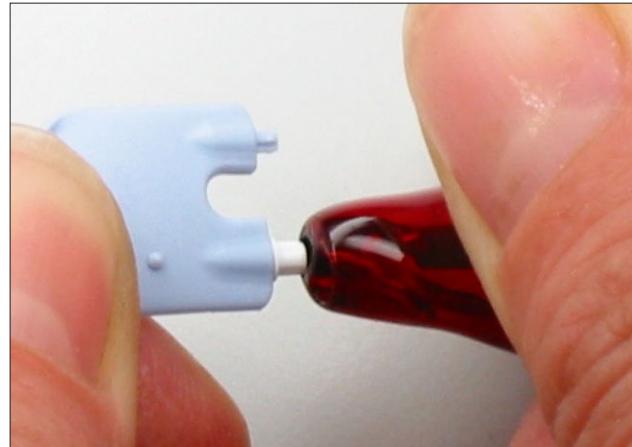
9. "Click" the microphone assembly side of the module into the frame.



10. **a.** Insert tweezers into the holes in each battery spring.
b. Press them gently towards each other. **c.** Push down.
d. Insert battery springs in the grooves inside the frame.

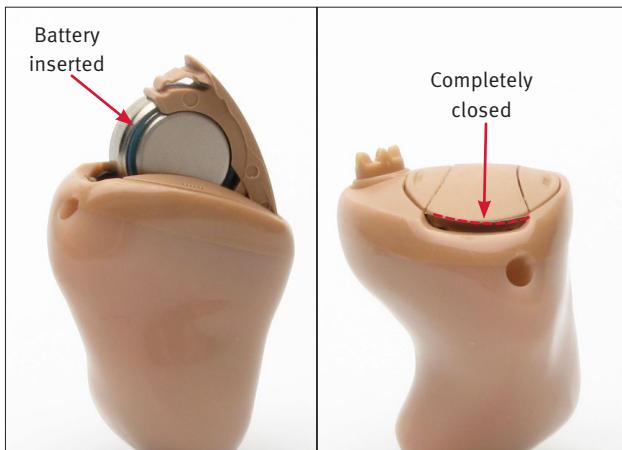


11. Perform Listening test, and glue suspension-tube all around the receiver hole. Pre-cut tube if necessary. (Refer to ITE WI "Assembly – Listening Test" and "Assembly – Receiver assembly" for more info).



12. Insert wax protection (refer to ITE WI "Assembly – Wax Protection System").

Final control after closing the instrument



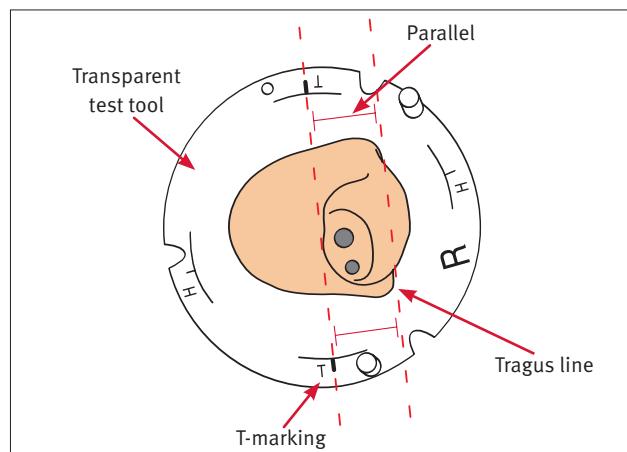
1. Check that the battery drawer, with inserted battery, close completely.



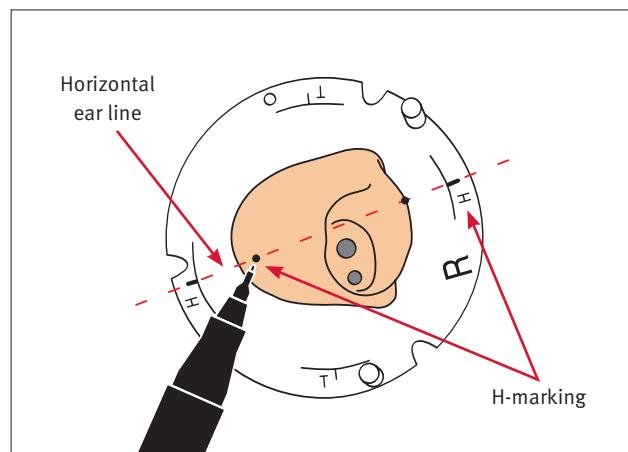
2. Check mechanical functionality of volume control/high knob, battery drawer, trimmers, switches, etc.

Check that the battery drawer is not touching the Anti-tragus and that the microphone inlet and the vent are completely open.

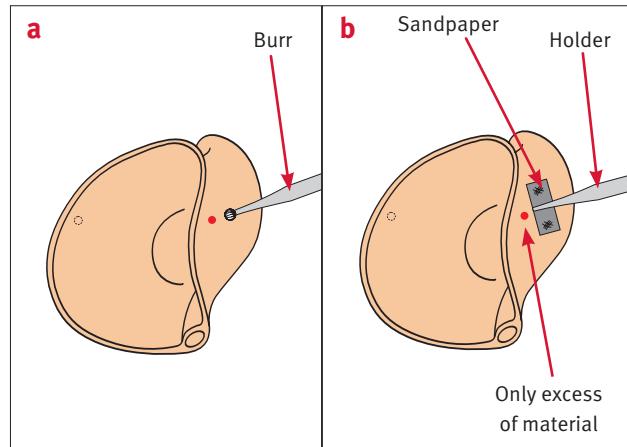
Direct instrument



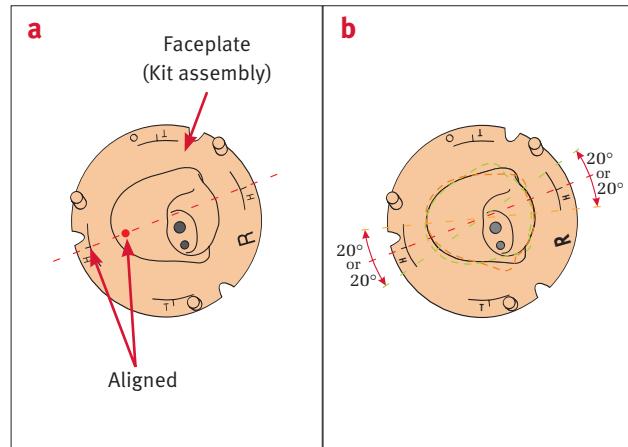
1. Using the transparent test tool, place the shell with the Tragus line parallel to the T-markings on the faceplate.



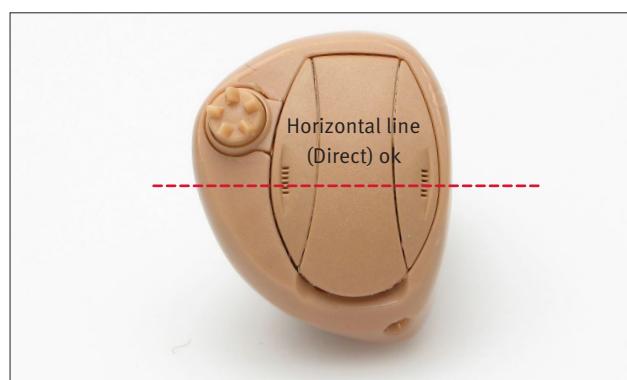
2. Using a thin perm. marker, mark a dot on the shell (you can also mark inside the shell) following the Horizontal ear line which matches the H-marking on the faceplate.



3. a. Drill a small cavity on each marking dot and colour the cavities with red or blue acrylic material. The marking dot indicates the Horizontal ear line. b. Take away excess of coloured material using sandpaper before proceeding to the kit assembly to the shell.

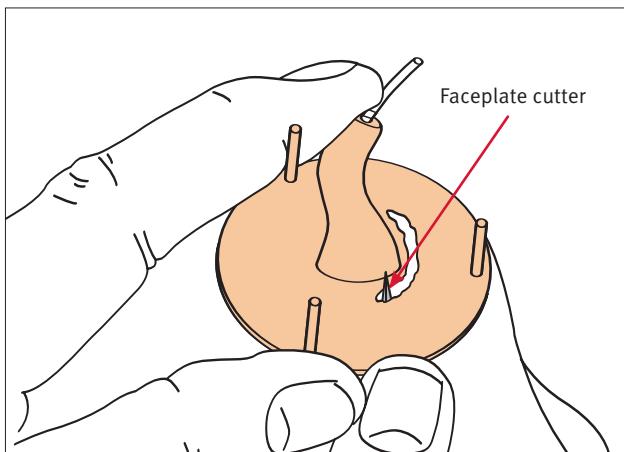


4. a. Place the shell with the colored dots aligned to the H-position on the faceplate. b. From the "H-position" it is allowed to angle the shell up till $\pm 20^\circ$ in order to secure space for electronics.

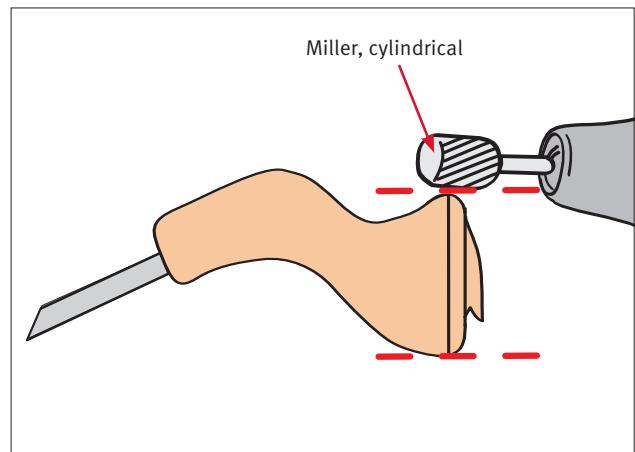


5. After closing the Direct Instrument check that the horizontal ear line is matching the allowed faceplate position.

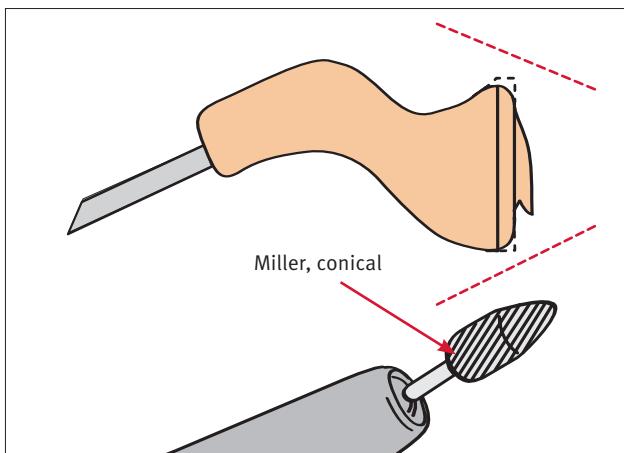
Faceplate cut



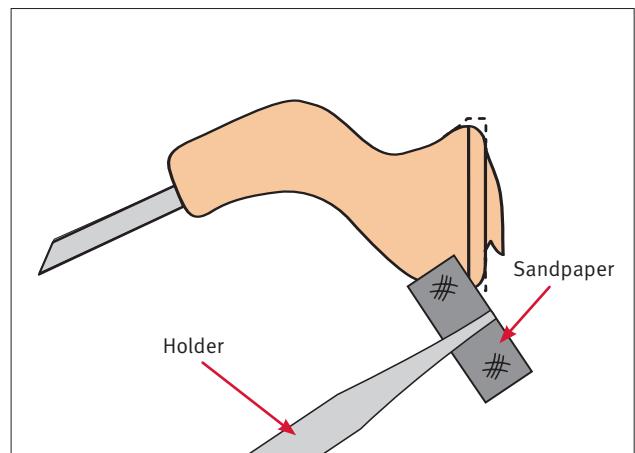
1. Before faceplate cut, always use tape or Depth gauge to cover/protect opening for microphone and Programming flex Connector. Roughly cut off excess of faceplate.



2. Bevel the faceplate until it is "rounded" with the base of the shell.



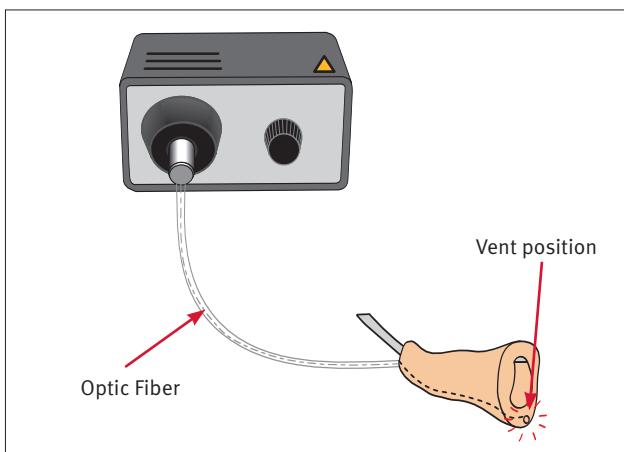
3. To make instrument more invisible, bevel the faceplate with an inclination towards the battery drawer.



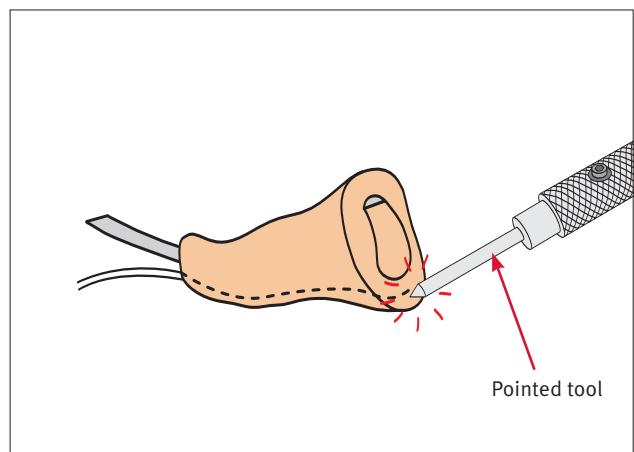
4. Use sandpaper to remove marks left by the miller and round/smooth faceplate border. Use sandpaper:

- Brown for deep marks
- Green to round/smooth faceplate.

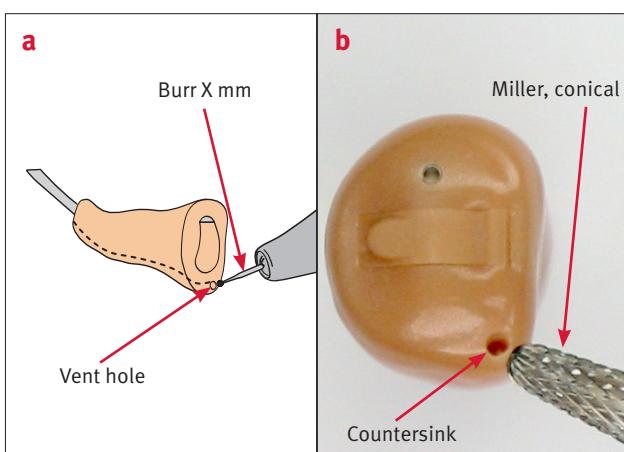
Vent position



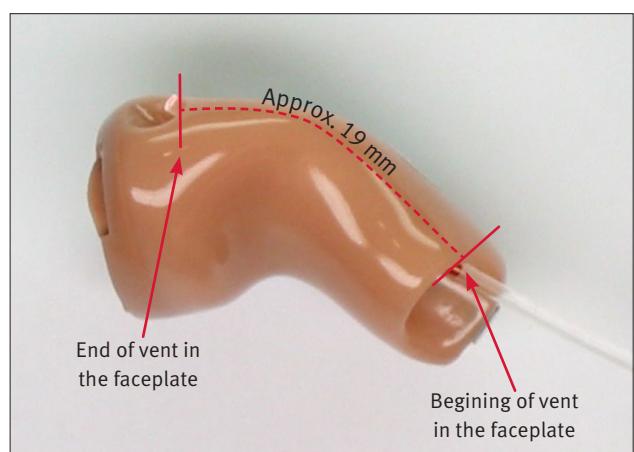
- Find the vent position on the faceplate using the Optic Fiber.



- Mark the vent position with a sharp pointed tool.



- Burr the vent hole on faceplate using the burr with the same size as the vent. Slightly countersink vent hole in the shell, if necessary.



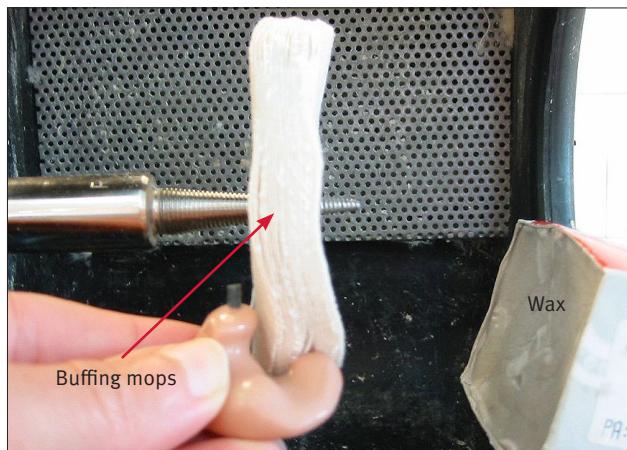
- If the instrument is one of those listed in the note*, check that the vent lenght is not longer than approx. 19 mm. Refer to the ITE WI "Shell production – Vent" page 28 (Keep in mind the final instrument cosmetic).



- Check vent for leak (damage could occur when drilling the vent hole on the faceplate side). Refer to ITE WI "Shell production – Vent" for more information.

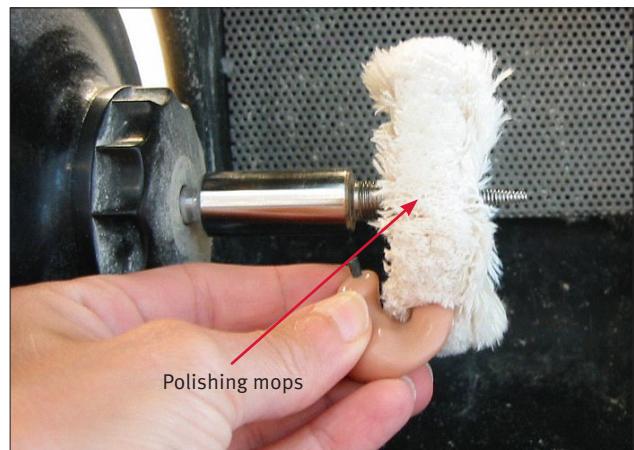
***) Applicable to all Neo, Win, Icos, Prio, Move and Veras styles.**

Buff and polish



1. a. Buff the instrument *first time* using the buffing mops together with the wax *Pumice 949*.

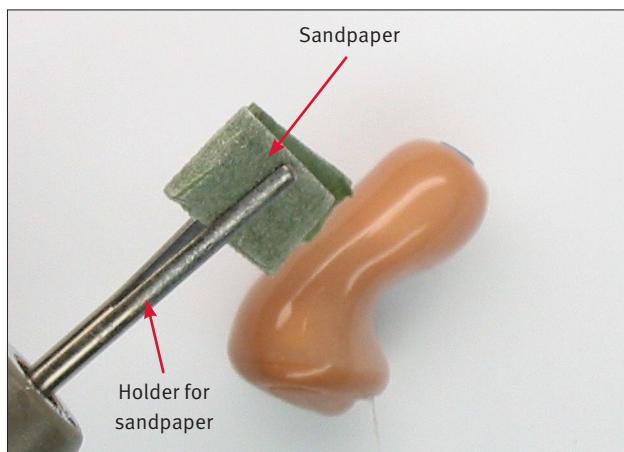
b. Buff the instrument for the *second time* using buffing mops together with wax *Atol 6*.



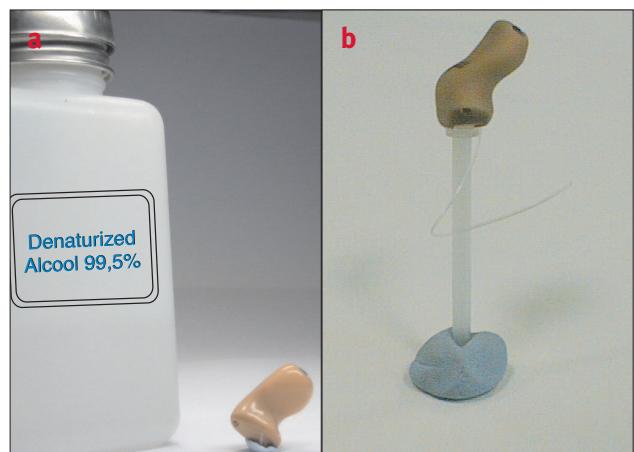
2. Polish the instrument using polishing mops.

Proceed to Pull out string at page 19 before buff and polish or lacquer.

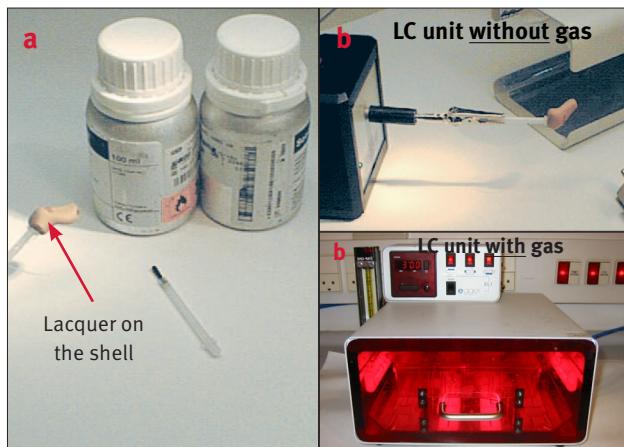
Lacquer



1. Roughen shell surface with sandpaper, grit 180.



2. **a.** Clean shell surface using denaturized alcohol (99.5%).
b. Mount the instrument to a supporting pin and fix it with tacky wax. Proceed to hard or soft lacquering as shown in the next steps.

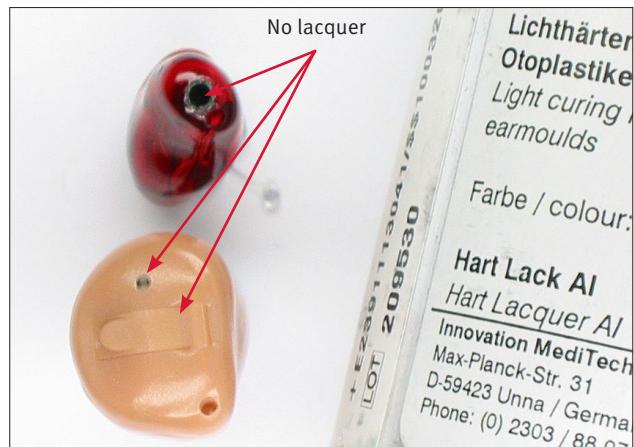


4. For hard coat lacquer LP/H or Sonopal A1

- a.** Apply hard lacquer to shell surface using a small brush.
- b.** Place the instrument in the light box with/without gas (LC unit) for approximately 1-2 min.

For soft coat lacquer LP/W

- a.** Apply soft lacquer on shell. **b.** Place the inst. in the light box with gas (LC unit EL-1, gas modified) for approximately 2-3 min.

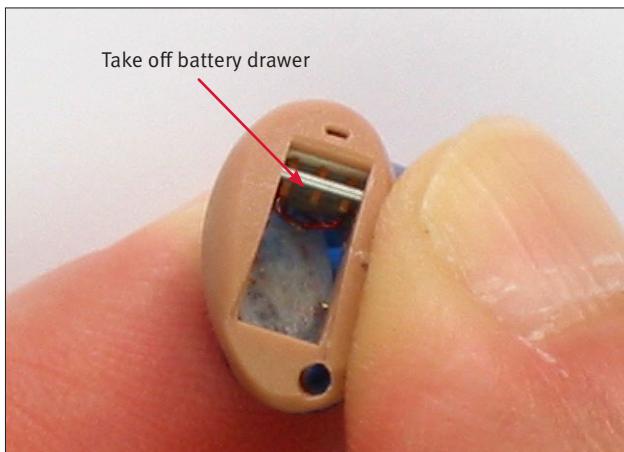


5. After lacquering, check that there is no lacquer inside the receiver tube, vent and on the top of the faceplate.

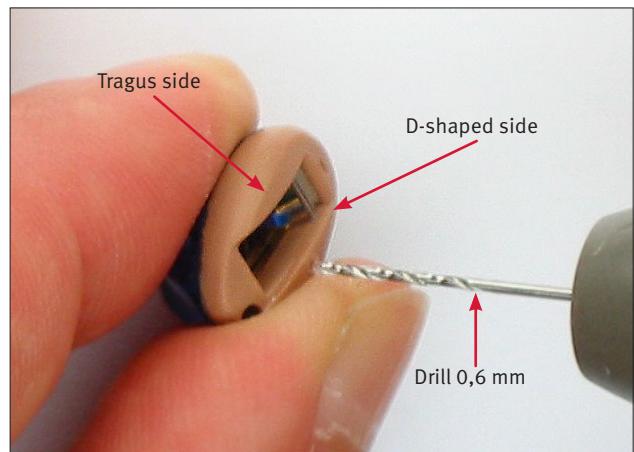
Proceed to Pull out string at page 19 before buff and polish or lacquer.

We do not recommend to make soft lacquering with use of LC Unit without gas because the lacquer will not be properly cured.

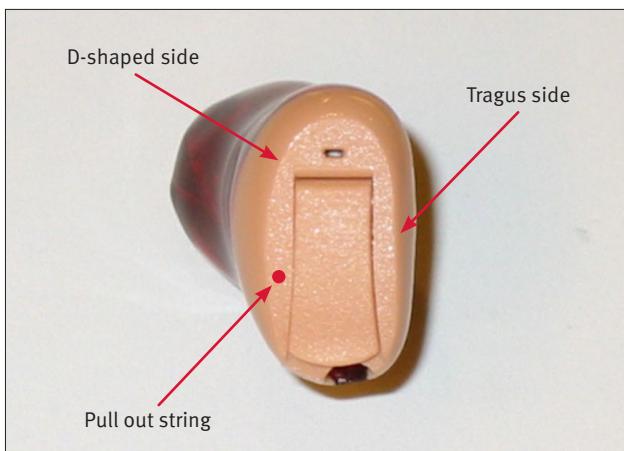
Pull out string



1. Open or take off the battery drawer to avoid gluing it to the battery contacts, when gluing the pull out string.



2. Drill a 0.6 mm hole at the D-shaped side of the faceplate (concha side of the ear canal).



3. We do not recommend the Tragus side since this could interfere with the pull out string.

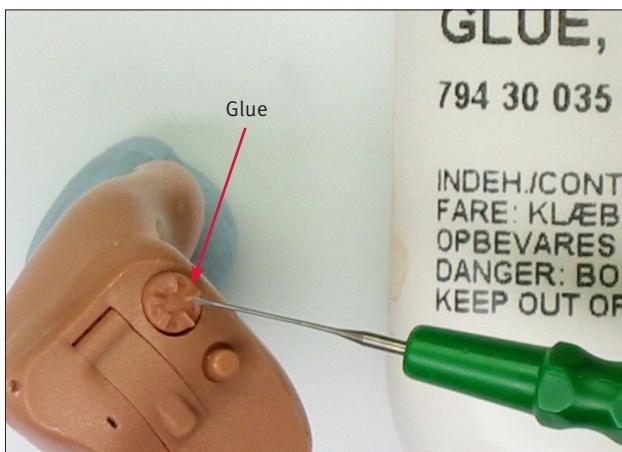


4. Adjust pull out string length as desired. **a.** Dip the end of the pull out string into the glue. **b.** Insert it in the hole. **c.** Place glue between the pull out string and the hole.

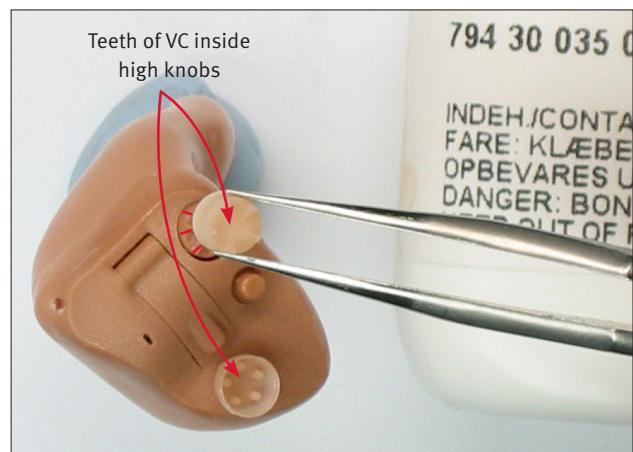


5. Check pull out string are easy to handle.

High Knob



1. Place a drop of glue on the top of the volume control.
Do not apply too much glue, this to avoid gluing the volume control.

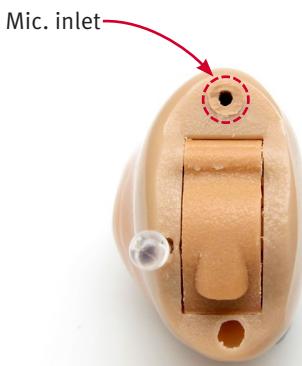


2. Place the high knob on the VC. The “teeth” of the VC must fit inside the high knob.

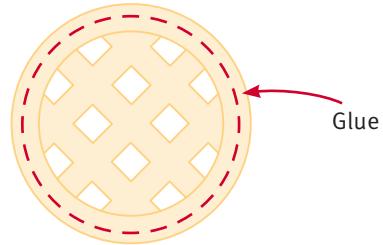


3. Press the high knob on the volume control while turning it clock-wise and counter-clockwise.

Microphone protection grid

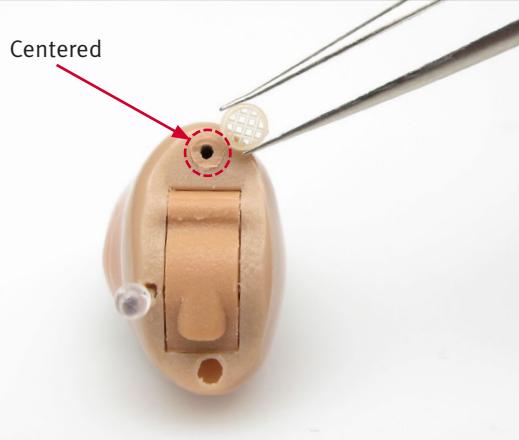


1. Check that the protection grid matches the microphone inlet.



2. Place a drop of glue Loctite 420 around the grid.

Centered



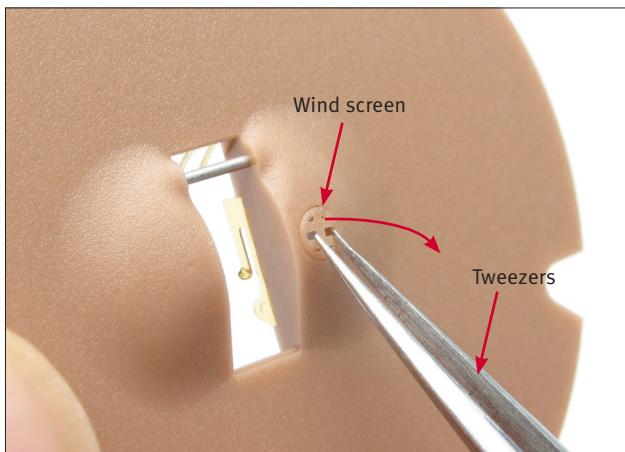
3. Positioning the protection grid centered on the microphone inlet.

Microphone grid free from glue



Note: Be careful that the glue does not penetrate in the microphone inlet and the grid opening.

Replacement of microphone wind screen on ITC*



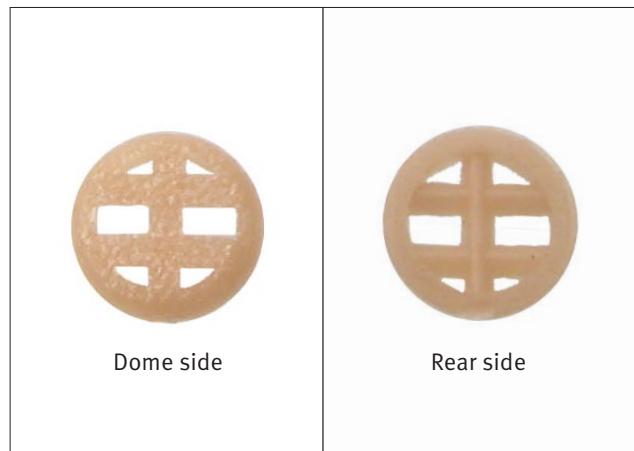
1. Use a tweezers to remove the microphone wind screen.



2. Place a new wind screen on the microphone inlet with the dome side up.



3. Press the wind screen in place – making sure it “click”.
If the wind screen doesn't click, turn it up side down and try again.



*) Applicable to all Veras ITC