ACRIVA 9|7

INTRODUCTION PROGRAM
LOCAL PRODUCTION

Preliminary

bernafon

Your hearing · Our passion

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Introduction

The combination of new custom hearing aid styles to expand Bernafon's fitting portfolio and innovative new adaptive features to maximize speech understanding and listener comfort, makes Acriva the ideal solution for every listening need.
Acriva delivers a new level of versatility and fitting flexibility with 11 instrument styles (4 BTE and 7 custom), additional power options in all 2 performance categories, 9 colors and several acoustic options.
Wireless connectivity options, binaural coordination and the addition of Acriva' 5 new Frequency Composition™ and Adaptive Noise Reduction Plus also offer practical solutions for any listening environment.

Acriva offers the following instrument styles:

- IIC **new** (only in category 9)
- CIC
- CICP
- ITC
- ITCD
- ITCPD
- ITED

New features available with Acriva:
Frequency Composition™ - It takes the high-frequency cues and shifts them to lower frequencies where the hearing capacity of the client is better. The shifted signal is overlaid onto the original signal, keeping the bandwidth in the output signal unchanged and, therefore, the sound natural.

Adaptive Noise Reduction Plus - A high-speed modulation-based algorithm, so fast that the system is able to follow the rapid changes of the incoming signal, resulting in a fast recognition of the signal-to-noise ratio.

Acriva 9 IIC - A new style in Bernafon's portfolio. This deep-fitting instrument is placed entirely inside the ear canal, therefore maintaining the natural pinna-effect.

Best regards

SPS Team

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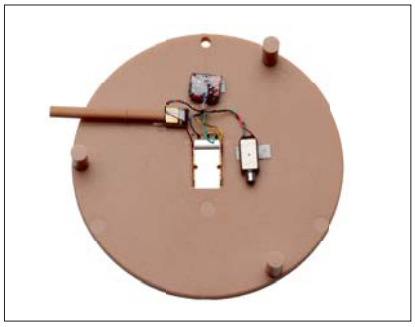
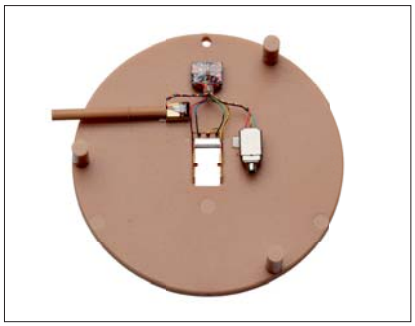
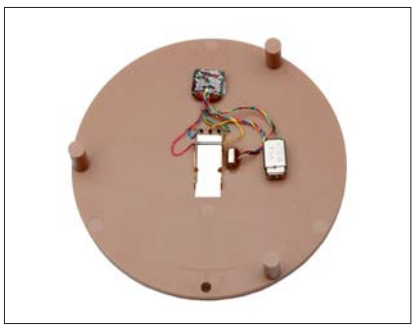
IIC
- 10 battery
- Omni
- No L/R side
- Receiver no. 55



CIC
- 10 battery
- Omni
- No R/L side
- Receiver no. 55



CICP
- 10 battery
- Omni
- No R/L side
- Receiver no. 56



ITC
- 312 battery
- Omni
- Receiver no. 54

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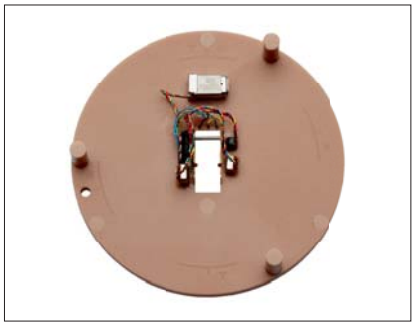
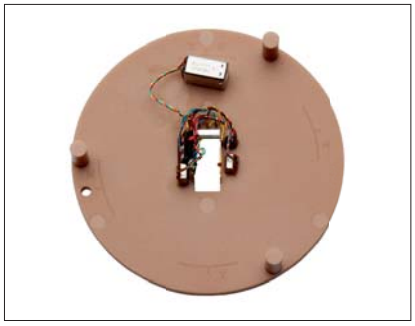
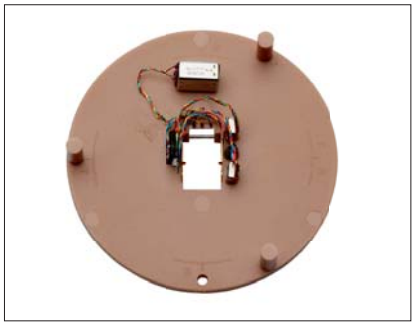


ITCD
- 312 battery
- Directional
- Receiver no. 57
- Wireless



ITCPD
- 312 battery
- Directional
- Receiver no. 58
- Wireless



ITED
- 13 battery
- Directional
- Receiver no. 58
- Wireless

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Following is an overview of the Acriva Production & Service documentation that specifies the styles described in each document.

<table>
<tr><th>Styles</th><th>SPL</th><th>SI</th><th>SD</th><th>Re-plating</th><th>Wireless Range Test</th><th>Introduction Program</th></tr>
<tr><td>IIC (10)</td><td>x</td><td>x</td><td>x</td><td rowspan="8"></td><td rowspan="3"></td><td rowspan="8">Introduction Program with product specific production procedures and features.</td></tr>
<tr><td>CIC (10)</td><td rowspan="2">x</td><td rowspan="2">x</td><td>x</td></tr>
<tr><td>CICP (10)</td><td>x</td></tr>
<tr><td>ITC (312)</td><td>x</td><td>x</td><td>x</td><td rowspan="3">x</td></tr>
<tr><td>ITCD (312)</td><td rowspan="2">x</td><td rowspan="3">x</td><td>x</td></tr>
<tr><td>ITCPD (312)</td><td>x</td><td rowspan="2">x</td></tr>
<tr><td>ITED (13)</td><td>x</td><td>x</td></tr>
</table>

Note:
SPL: Spare Parts List
SI: Service Instruction
SD: Service Data

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Choose needed kit in the table then proceed to the assembly of the kit by following the horizontal sequential procedures.

Acriva styles: ↓	**Use Kit** →	**Mount** →	**Reprogram and de-/activate options with WDH Test**
IIC (10)	Acriva - IIC		Program right/left
CIC (10)	Acriva - CIC		Program right/left
CIC (10) PB	Acriva - CIC	Floating PB	Program and enable PB
CICP (10)	Acriva - CICP		Program right/left
CICP (10) PB	Acriva - CICP	Floating PB	Program right/left and enable PB
ITC (312)	Acriva - ITC		
ITC (312) VC	Acriva - ITC	Floating VC	Enable VC
ITC (312) PB	Acriva - ITC	Floating PB	Enable PB
ITC (312) T	Acriva - ITC	Telecoil	Enable Telecoil
ITC (312) AT	Acriva - ITC	Reed switch	Enable AT
ITC (312) VC PB	Acriva - ITC	Floating VC and PB	Enable VC and PB
ITC (312) VC T	Acriva - ITC	Floating VC and Telecoil	Enable VC and Telecoil
ITC (312) VC AT	Acriva - ITC	Floating VC and Reed switch	Enable VC and AT
ITC (312) PB T	Acriva - ITC	Floating PB and Telecoil	Enable PB and Telecoil
ITC (312) PB AT	Acriva - ITC	Floating PB and Reed switch	Enable PB and AT
ITC (312) T AT	Acriva - ITC	Floating Telecoil and Reed switch	Enable Telecoil and AT

Note:
VC: Volume Control
T: Telecoil
PB: Push Button
AT: Auto Telephone

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Acriva styles: ↓	Use Kit →	Mount →	Reprogram and de-/activate options with WDH Test
ITC (312) VC PBT	Acriva - ITC	Floating VC, PB and Telecoil	Enable VC, PB and Telecoil
ITC (312) VC PB AT	Acriva - ITC	Floating VC, PB and Reed switch	Enable VC, PB and AT
ITC (312) VC T AT	Acriva - ITC	Floating VC, Telecoil and Reed switch	Enable VC, Telecoil and AT
ITC (312) PB T AT	Acriva - ITC	Floating PB, Telecoil and Reed switch	Enable PB, Telecoil and AT
ITC (312) VC PB T AT	Acriva - ITC	Floating VC, PB, Telecoil and Reed switch	Enable VC, PB, Telecoil and AT
ITCD (312)	Acriva - ITCD		
ITCD (312) AT	Acriva - ITCD	Reed switch	Enable AT
ITCD (312) PB	Acriva - ITCD	Floating PB	Enable PB
ITCD (312) PB AT	Acriva - ITCD	Floating PB and Reed switch	Enable PB and AT
ITCD (312) T	Acriva - ITCD	Telecoil	Enable Telecoil
ITCD (312) AT T	Acriva - ITCD	Reed switch and Telecoil	Enable AT and Telecoil
ITCD (312) PB T	Acriva - ITCD	Floating PB and Telecoil	Enable PB and Telecoil
ITCD (312) AT PB T	Acriva - ITCD	Reed switch, Floating PB and Telecoil	Enable AT, PB and Telecoil

Note:

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Acriva styles: ↓	Use Kit →	Mount →	Reprogram and de-/activate options with WDH Test
ITCPD (312)	Acriva - ITCPD		
ITCPD (312) AT	Acriva - ITCPD	Reed switch	Enable AT
ITCPD (312) PB	Acriva - ITCPD	Floating PB	Enable PB
ITCPD (312) PB AT	Acriva - ITCPD	Floating PB and Reed switch	Enable PB and AT
ITCPD (312) T	Acriva - ITCPD	Telecoil	Enable Telecoil
ITCPD (312) AT T	Acriva - ITCPD	Reed switch and Telecoil	Enable AT and Telecoil
ITCPD (312) PB T	Acriva - ITCPD	Floating PB and Telecoil	Enable PB and Telecoil
ITCPD (312) AT PB T	Acriva - ITCPD	Reed switch, Floating PB and Telecoil	Enable PB, AT and Telecoil
ITED (13)	Acriva - ITED		
ITED (13) AT	Acriva - ITED	Reed switch	Enable AT
ITED (13) PB	Acriva - ITED	Floating PB	Enable PB
ITED (13) PB AT	Acriva - ITED	Floating PB and Reed switch	Enable PB and AT
ITED (13) T	Acriva - ITED	Telecoil	Enable Telecoil
ITED (13) AT T	Acriva - ITED	Reed switch and Telecoil	Enable AT and Telecoil
ITED (13) PB T	Acriva - ITED	Floating PB and Telecoil	Enable PB and Telecoil
ITED (13) AT PB T	Acriva - ITED	Reed switch, Floating PB and Telecoil	Enable PB, AT and Telecoil

Note:

VC: Volume Control
T: Telecoil
PB: Push Button
AT: Auto Telephone

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Content of programs in different settings

Factory setting						
	Program 1	**Program 2**	**Program 3**	**Program 4**	**Program 5**	**Program 6**
IIC	Omni					
CIC	Omni					
CICP	Omni					
ITC	Omni	Telecoil*				
ITCD	Dir	Front Omni	Rear Omni	Telecoil*		
ITCPD	Dir	Front Omni	Rear Omni	Telecoil*		
ITED	Dir	Front Omni	Rear Omni	Telecoil*		
CP BTE	Dir	Front Omni	Rear Omni	Telecoil		
CPx BTE	Double Omni	Front Omni	Rear Omni	Telecoil		
Nano BTE	Double Omni	Front Omni	Rear Omni			
Nano RITE	Double Omni	Front Omni	Rear Omni	Telecoil		
Technical settings A0, B0, N0						
	Program 1	**Program 2**	**Program 3**	**Program 4**	**Program 5**	**Program 6**
IIC	Omni					
CIC	Omni					
CICP	Omni					
ITC	Omni	Telecoil*	Mic. +Telecoil*			
ITCD	Double Omni	Dir	Telecoil*	Mic. +Telecoil*		
ITCPD	Double Omni	Dir	Telecoil*	Mic. +Telecoil*		
ITED	Double Omni	Dir	Telecoil*	Mic. +Telecoil*		
CP BTE	Double Omni	Dir	Telecoil	Mic. +Telecoil	Mic. + DAI	DAI
CPx BTE	Double Omni	Telecoil	Mic. +Telecoil		Mic. + DAI	DAI
Nano BTE	Double Omni	Dir				
Nano RITE	Double Omni	Dir	Telecoil	Mic. +Telecoil		

Note:
*) Telecoil programs are offered only if the telecoil is activated.
DAI programs in the LabOut can only be accessed by attaching a DAI-shoe.

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LabOut: Final Local Production Setting (FLPS)						
	Program 1	**Program 2**	**Program 3**	**Program 4**	**Program 5**	**Program 6**
IIC	Omni					
CIC	Omni					
CICP	Omni					
ITC	Double Omni	Double Omni	Double Omni	Double Omni		
ITCD	Double Omni	Double Omni	Double Omni	Double Omni		
ITCPD	Double Omni	Double Omni	Double Omni	Double Omni		
ITED	Double Omni	Double Omni	Double Omni	Double Omni		
CP BTE	Double Omni	Double Omni	Double Omni	Double Omni	Mic. + DAI	DAI
CPx BTE	Double Omni	Double Omni	Double Omni	Double Omni	Mic. + DAI	DAI
Nano BTE	Double Omni	Double Omni	Double Omni	Double Omni		
Nano RITE	Double Omni	Double Omni	Double Omni	Double Omni		

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Ensure that the shells are laser-marked with full family/style description as:

AR9 IIC	
AR9 CIC	AR7 CIC
AR9 CICP	AR7 CICP
AR9 ITC	AR7 ITC
AR9 ITCD	AR7 ITCD
AR9 ITCPD	AR7 ITCPD
AR9 ITED	AR7 ITED

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● = Wireless coil (W)
○ = No wireless coil

See part numbers below.

SERIAL NUMBER LABELS

Part no.	Designation	To use on:	Colour
128411	Acriva 9 - W	Beige shells	Black text on transparent carrier (60 pcs.)
128415	Acriva 9 - W	Red, blue or brown shells	White text on transparent carrier (60 pcs.)
128413	Acriva 7 - W	Beige shells	Black text on transparent carrier (60 pcs.)
128417	Acriva 7 - W	Red, blue or brown shells	White text on transparent carrier (60 pcs.)
128409	Acriva 9	Beige shells	Black text on transparent carrier (60 pcs.)
128410	Acriva 9	Red, blue or brown shells	White text on transparent carrier (60 pcs.)
128412	Acriva 7	Beige shells	Black text on transparent carrier (60 pcs.)
128416	Acriva 7	Red, blue or brown shells	White text on transparent carrier (60 pcs.)

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Part no.	Designation	Colour
127848	Kit, AR9 IIC, right/left	black
127814	Kit, AR9 CIC, right/left	Beige
127815	Kit, AR7 CIC, right/left	Beige
124691	Kit, AR9 CICP, right/left	Beige
126148	Kit, AR7 CICP, right/left	Beige
127849	Kit, AR9 ITC, right	Beige
127850	Kit, AR9 ITC, left	Beige
127851	Kit, AR7 ITC, right	Beige
127852	Kit, AR7 ITC, left	Beige
127856	Kit, AR9 ITCD, right	Beige
127857	Kit, AR9 ITCD, left	Beige
127859	Kit, AR7 ITCD, right	Beige
127860	Kit, AR7 ITCD, left	Beige
127861	Kit, AR9 ITCPD, right	Beige
127862	Kit, AR9 ITCPD, left	Beige
127863	Kit, AR7 ITCPD, right	Beige
127864	Kit, AR7 ITCPD, left	Beige
127865	Kit, AR9 ITED, right	Beige
127866	Kit, AR9 ITED, left	Beige
127870	Kit, AR7 ITED, right	Beige
127871	Kit, AR7 ITED, left	Beige

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Part no.	Designation	Colour
120446	Depth gauge, 10, IIC/CIC/CICP, right/left	Transparent
128040	Depth gauge, 312, ITC, right	Transparent
128041	Depth gauge, 312, ITC, left	Transparent
128042	Depth gauge, 312, WL, ITCD, ITCPD, right	Transparent
128043	Depth gauge, 312, WL, ITCD, ITCPD, left	Transparent
128034	Depth gauge, 13, WL, ITED, right	Transparent
128035	Depth gauge, 13, WL, ITED, left	Transparent
117468	Programming cable, FlexConnect, mini	

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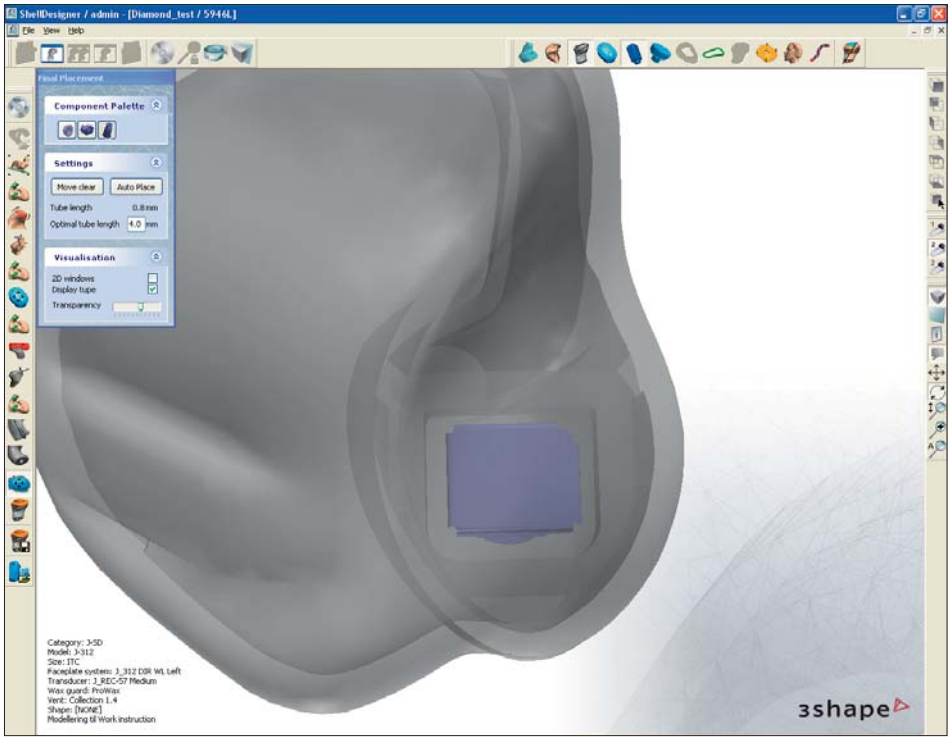
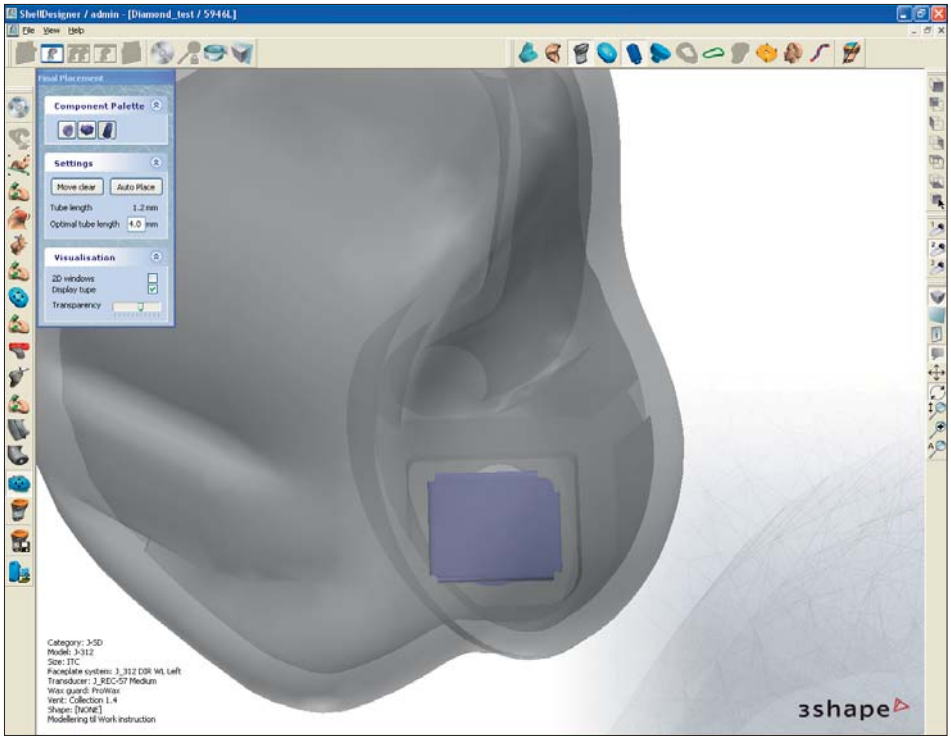


1. Try to place the receiver in the middle of the canal.
The support inside the shell will then be build all around the receiver.

If the support can not be build all around the receiver it is acceptabel.



2. The receiver should not be too close to the shell.

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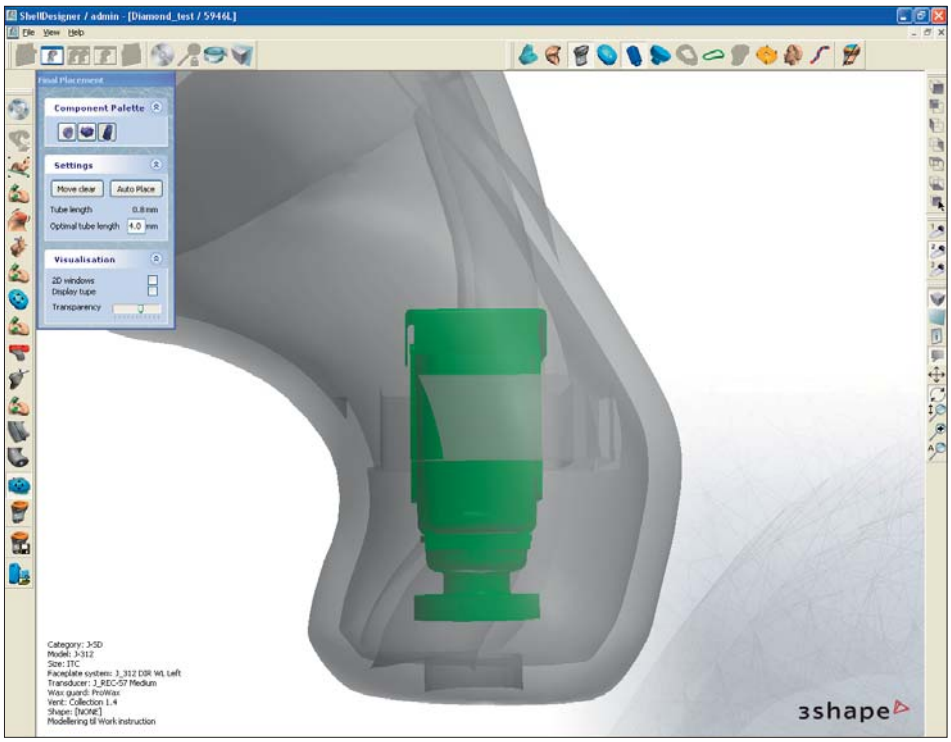
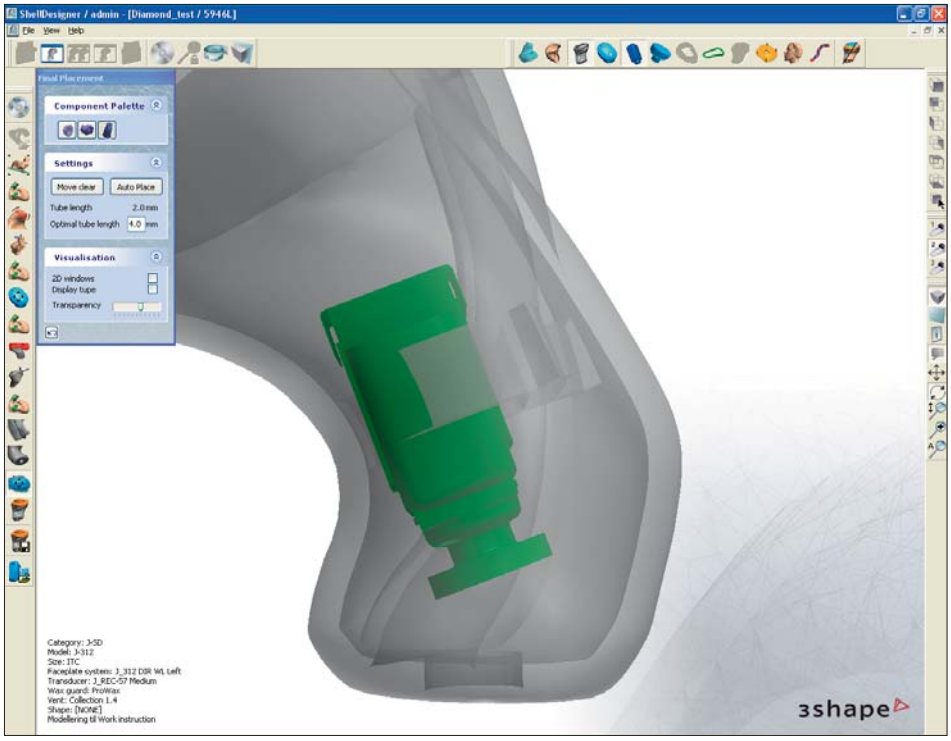


First Priority
1a. Try to place the receiver and the canaltip in a 90° angle.



Second Priority
1b. If it's not possible to place the receiver and the canaltip in a 90° angle it is allowed to deviate the angle 25° up or down.

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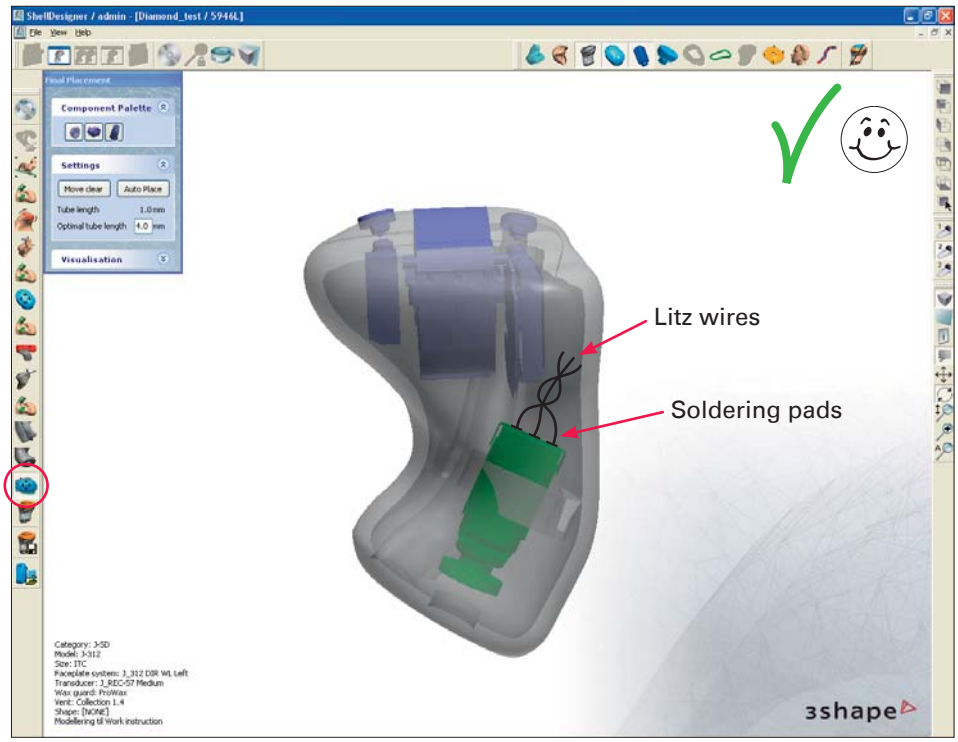
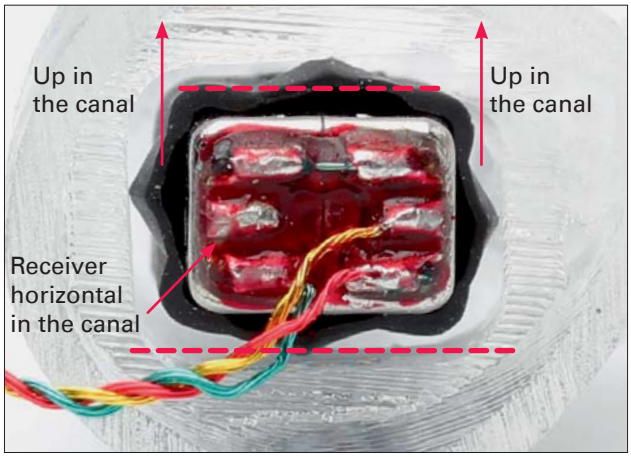
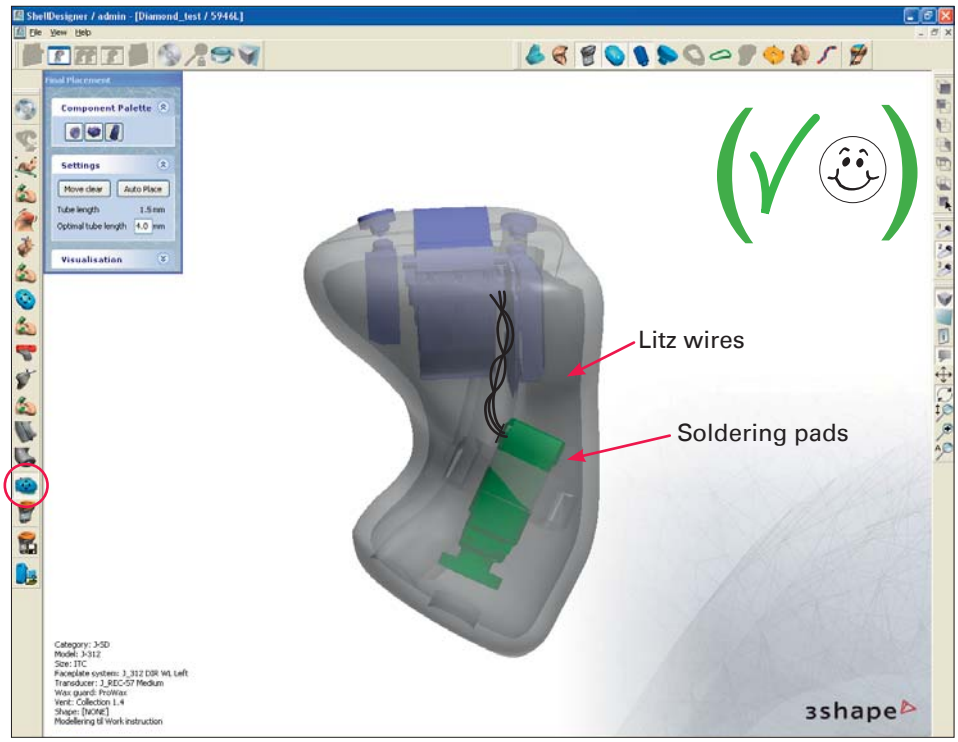


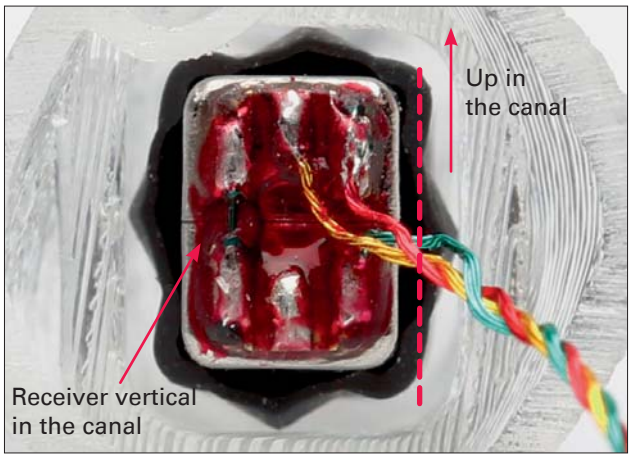
First Priority
1a. This is the optimal position of the receiver in the shell.
This is to prevent feedback.



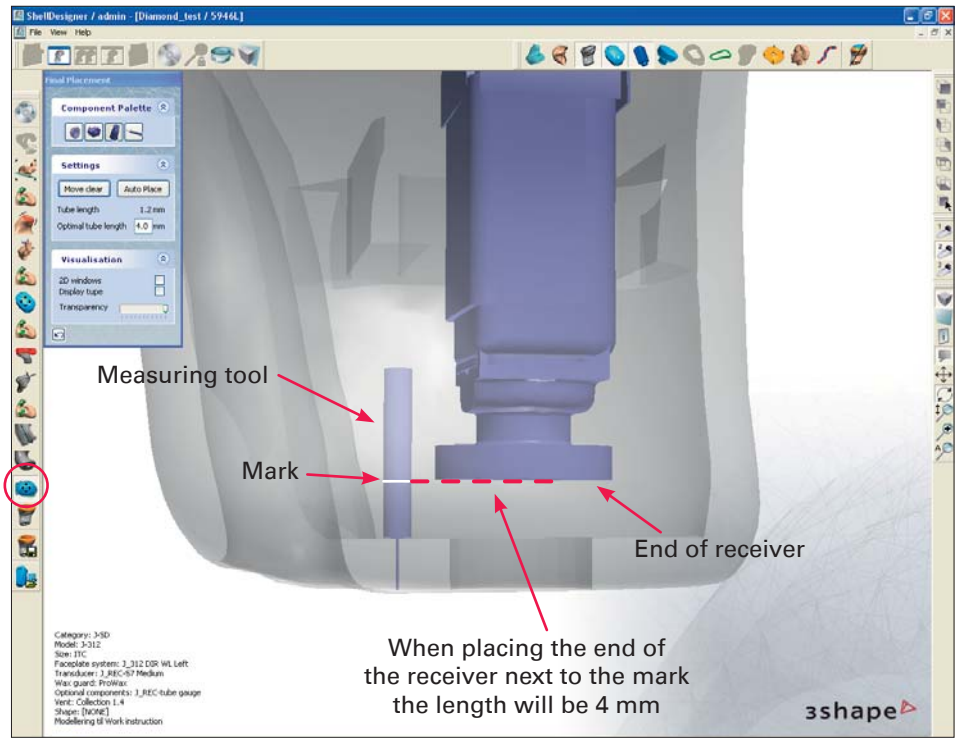
1b. The optimal position of the receiver in the shell is horizontal in the canal.



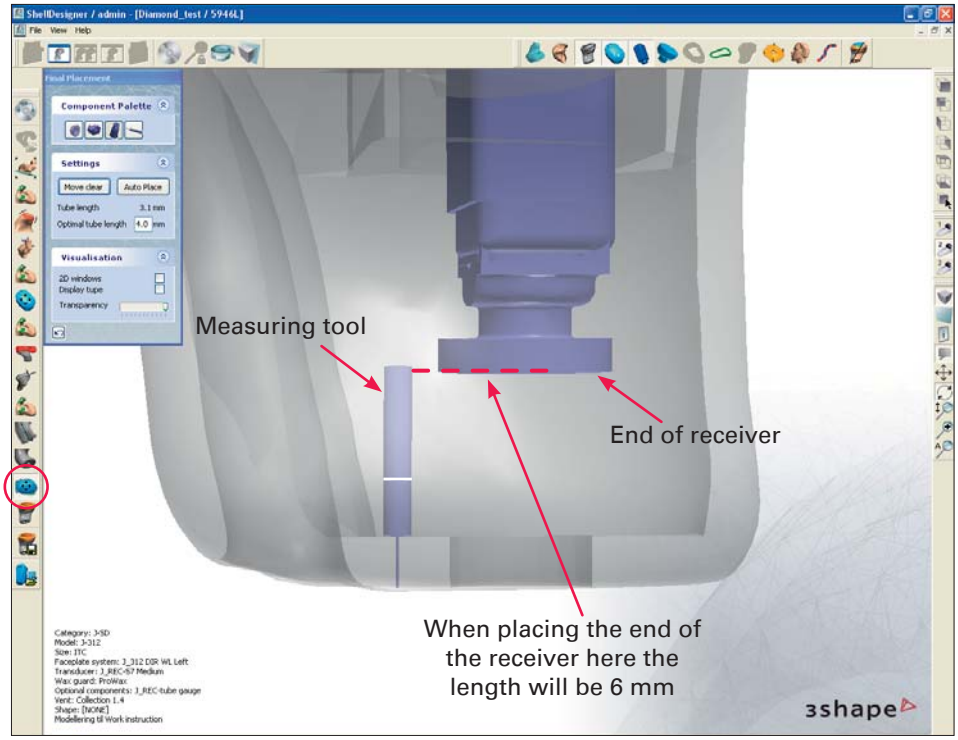
Second Priority
1a. If it's not possible to place the receiver horizontal it is allowed to place the receiver vertical in the canal but only as a second option.



1b. If it's not possible to place the receiver horizontal it is allowed to place the receiver vertical in the canal.



Straight receiver
1. The tube length **must be between 3-6 mm**. The nominal lenght is 4 mm. When placing the end of the receiver next to the mark on the measuring tool the tube length will be 4 mm.



Straight receiver
2. When placing the end of the receiver next to the top of the measuring tool the tube length will be 6 mm.

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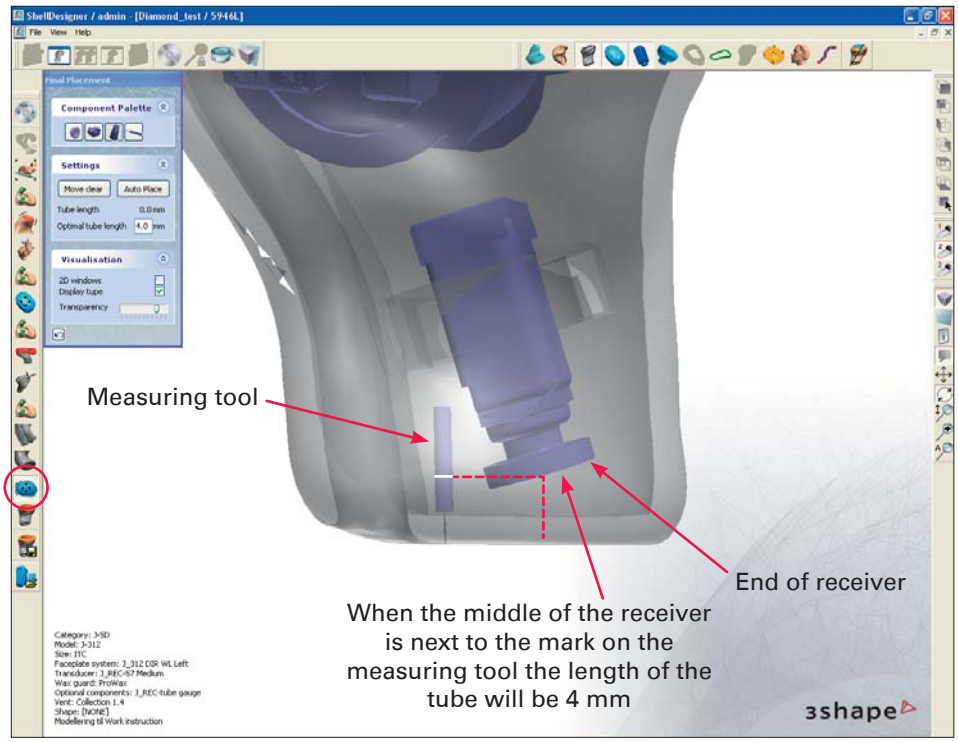
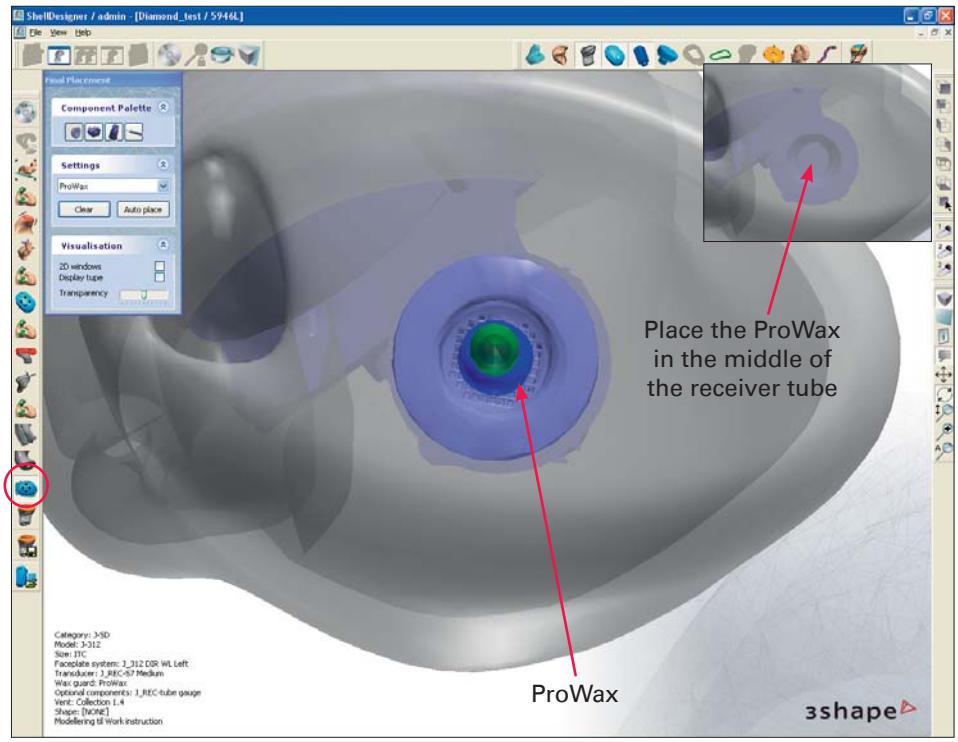
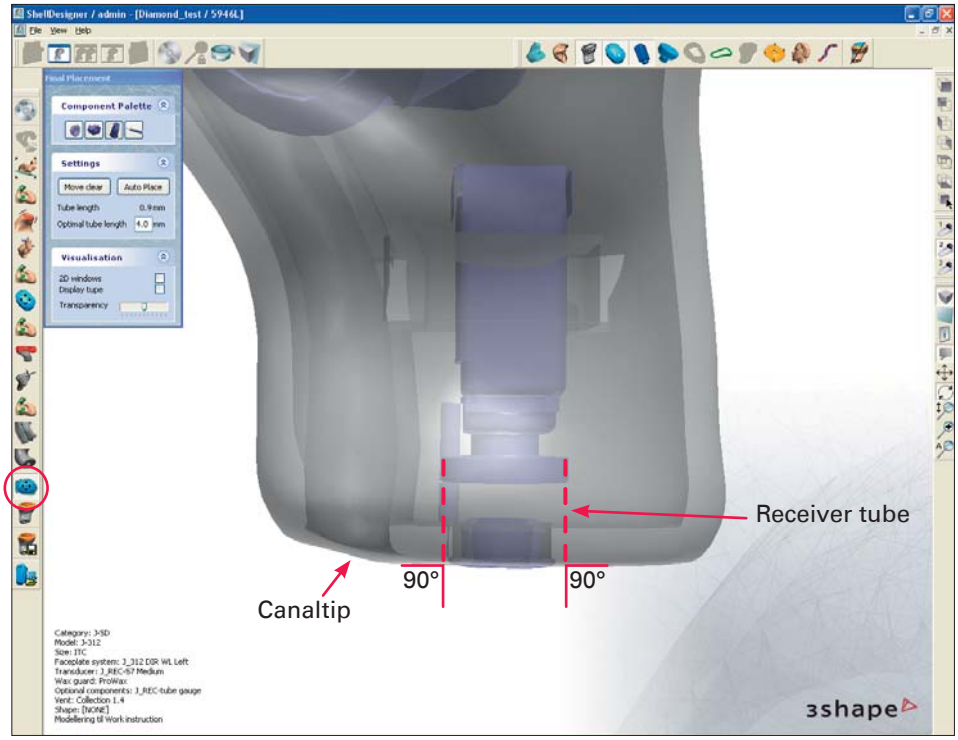


Angled receiver
1. When you use the angled receiver option the measuring point on the receiver is the middle of the receiver end.

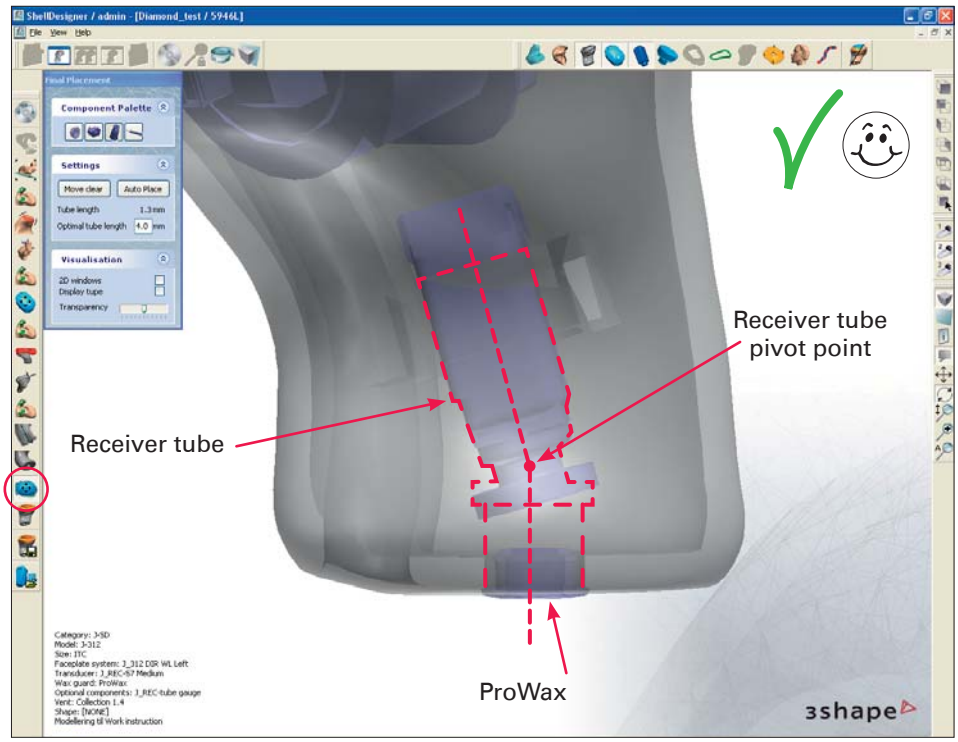


1. Place the ProWax in the middle of the receiver tube.

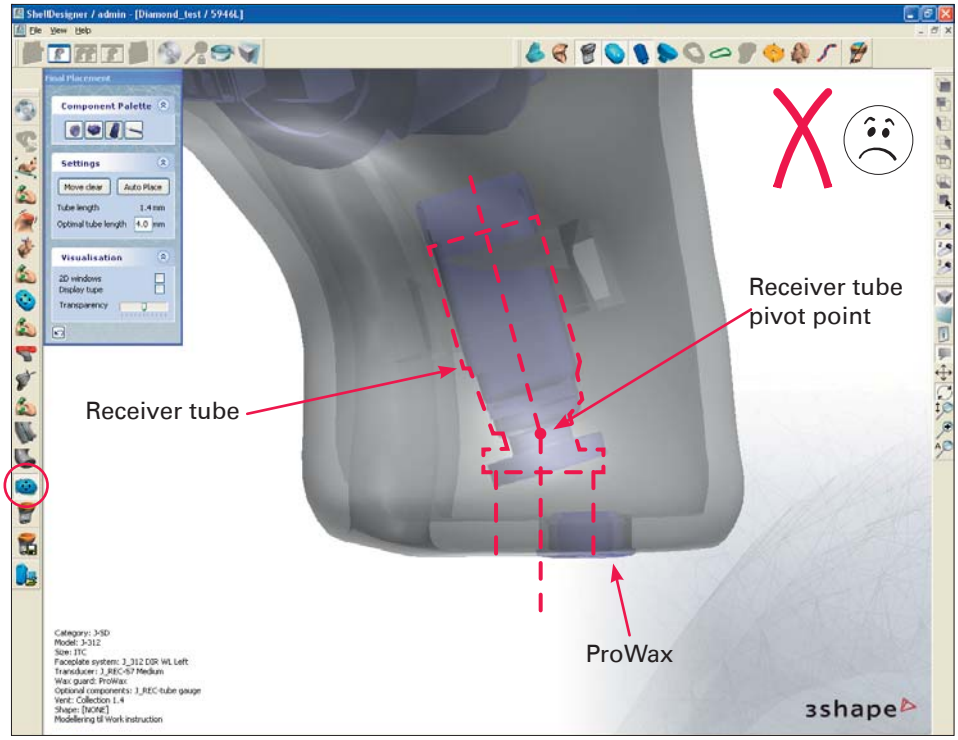


Straight receiver

2. Receiver tube and the canaltip is in a 90° angle.



Angled receiver
3a. If the receiver is angled it is important that the ProWax is placed under the pivot point of the receiver.



Angled receiver
3b. ProWax **NOT** under the pivot point of the receiver.

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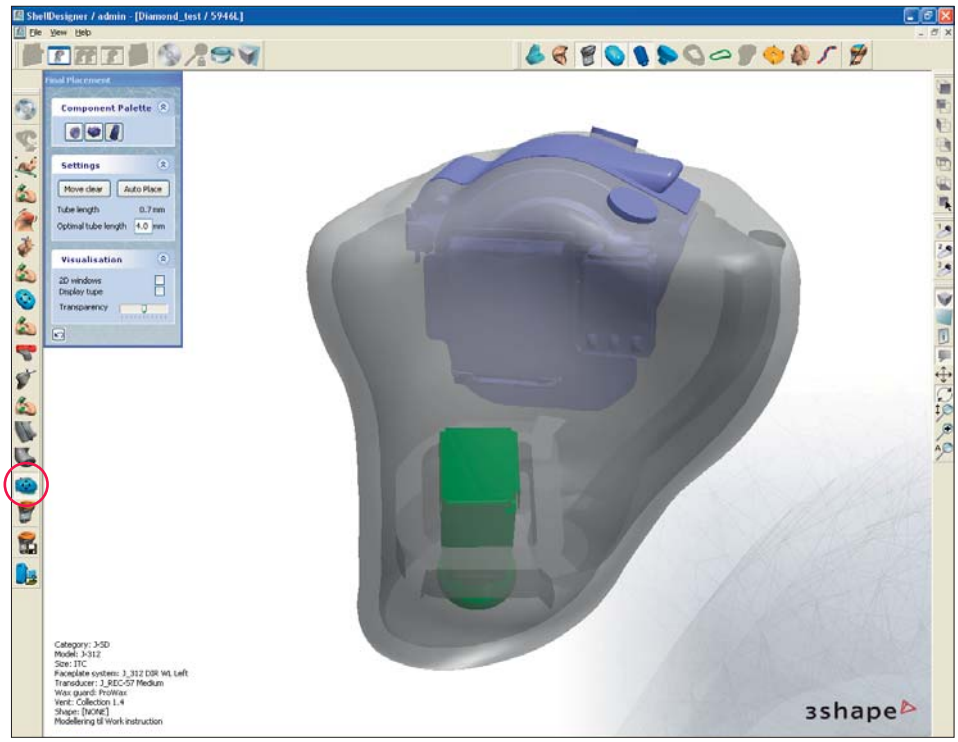
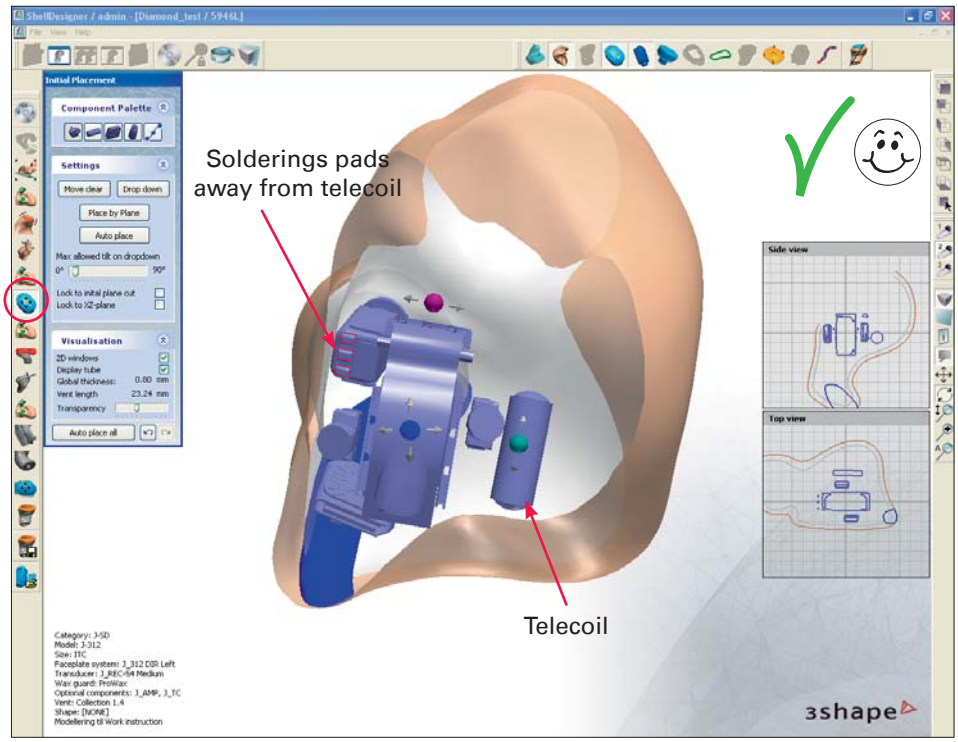
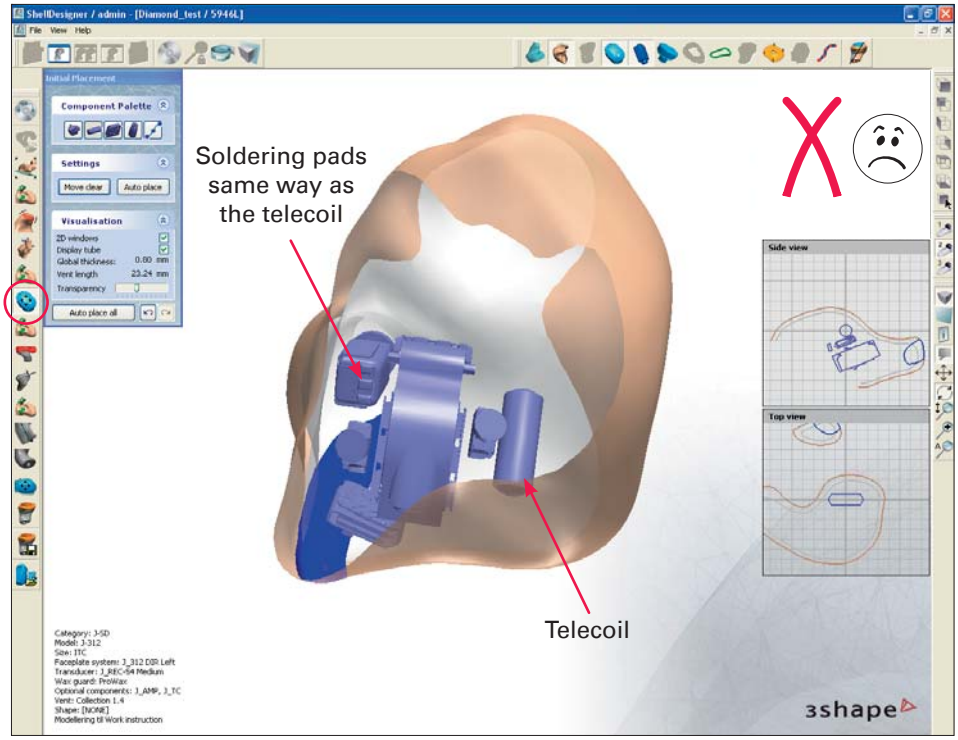


1. Before finish the modeling check the support.



1a. When placing the receiver it is important that the soldering pads is away from the telecoil. This is to prevent feedback.



1b. Wrong placement for receiver. Soldering pads same way as the telecoil.

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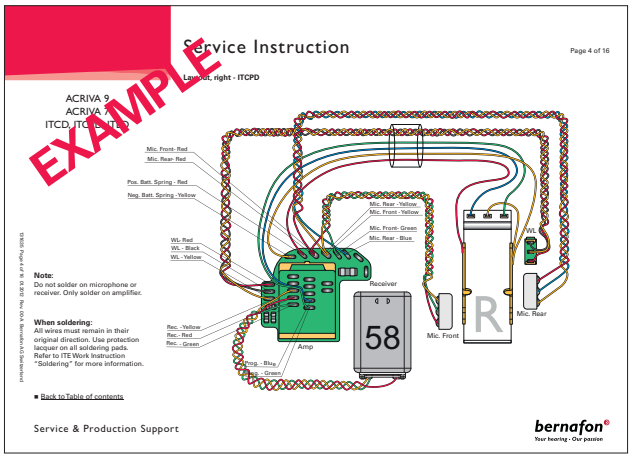
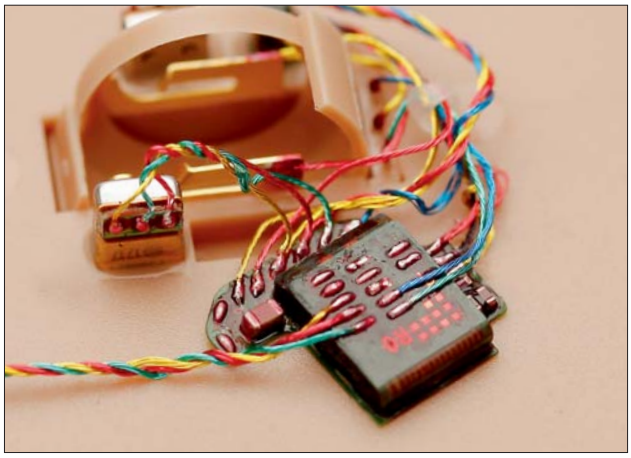


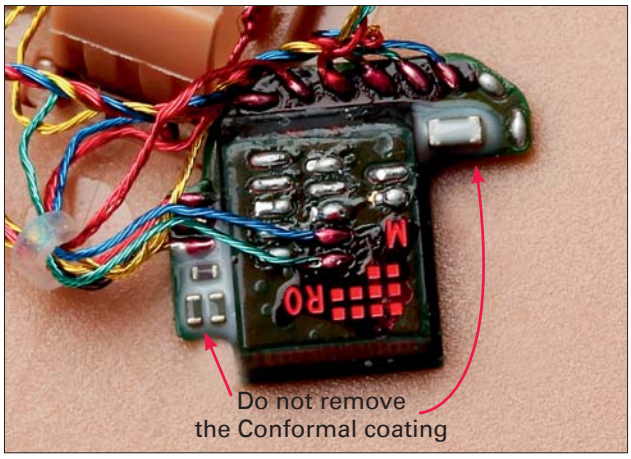
1. Information regarding "How to place the options" refer to the family specific Service Instruction.

2. After soldering remember to place a thin layer of Red protection lacquer on the soldering pads.

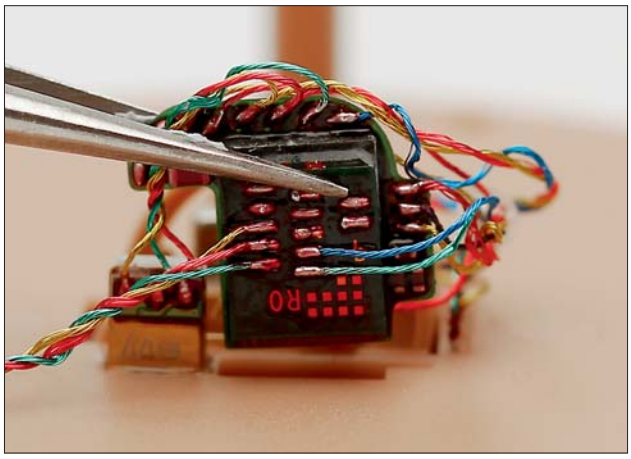


3. Amplifier with red protection lacquer.

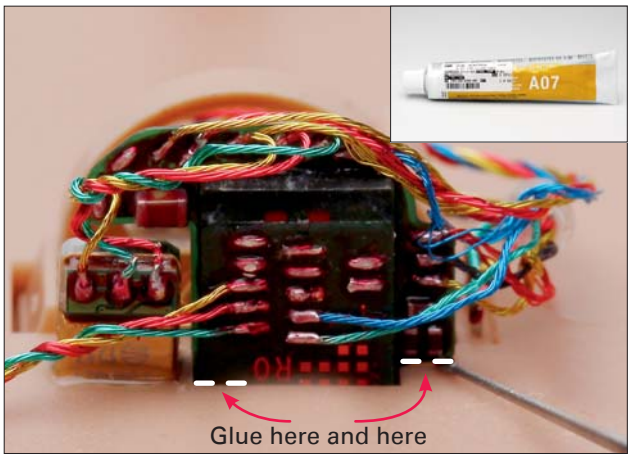
ASSEMBLY – CONFORMAL COATING ON AMPLIFIER



1. Do not remove the Conformal coating on the amplifier.



1. After soldering carefully place the amplifier in the groove on the faceplate.



2. Place a thin layer of Glue Elastosil on the amplifier and faceplate.

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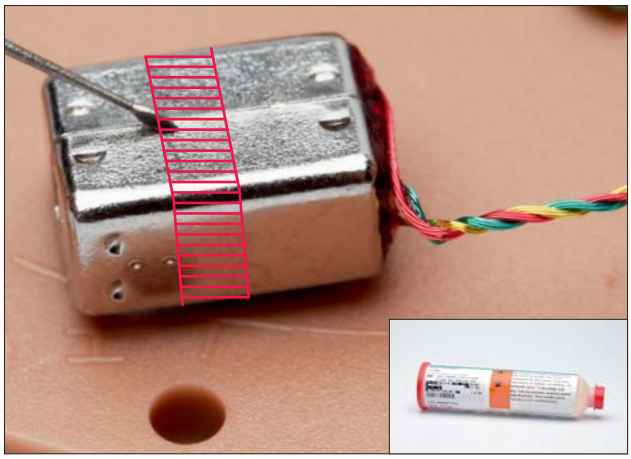
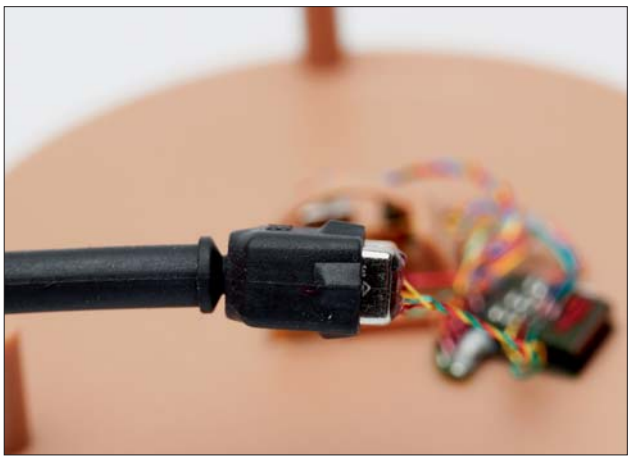
1. Receiver tube for receiver #58.

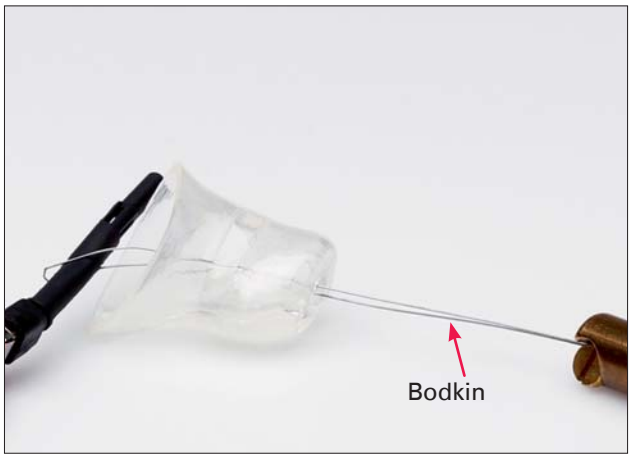
2. Receiver and tube.



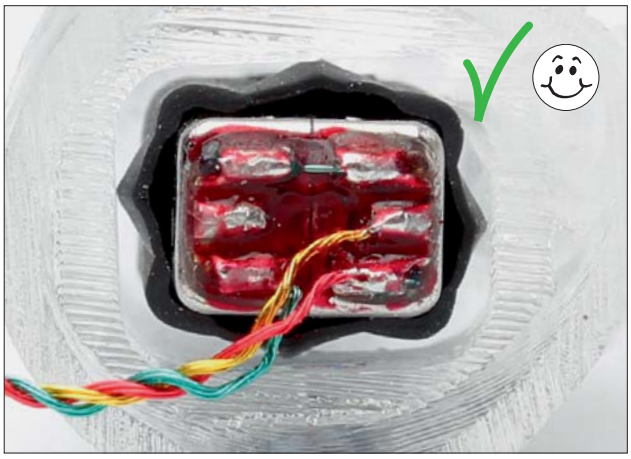
3. Remember to seal the receiver with Conformal Coating before placing the tube. Place a thin layer all around the receiver.



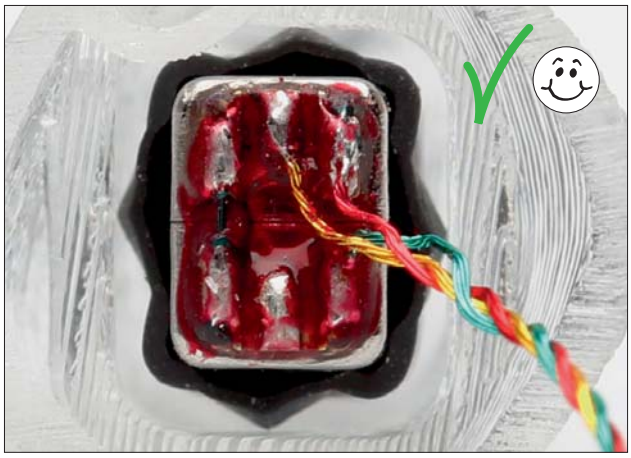
4. Receiver placed in tube and let the Conformal Coating dry for 10 min before continue assembly.



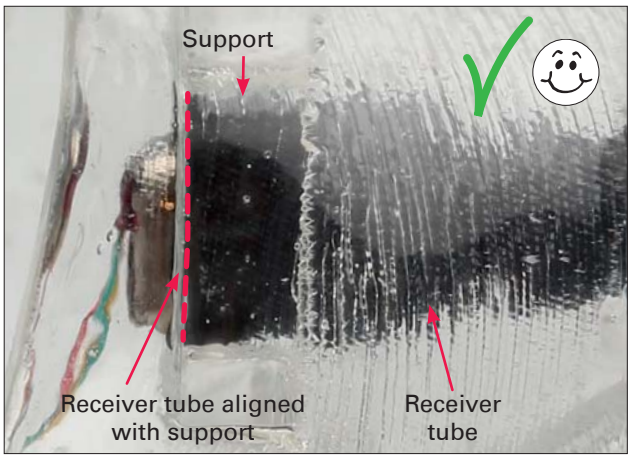
1. Insert bodkin into the receiver hole from the canal tip side. Place the receiver tube in the bodkin and pull it through the receiver hole.



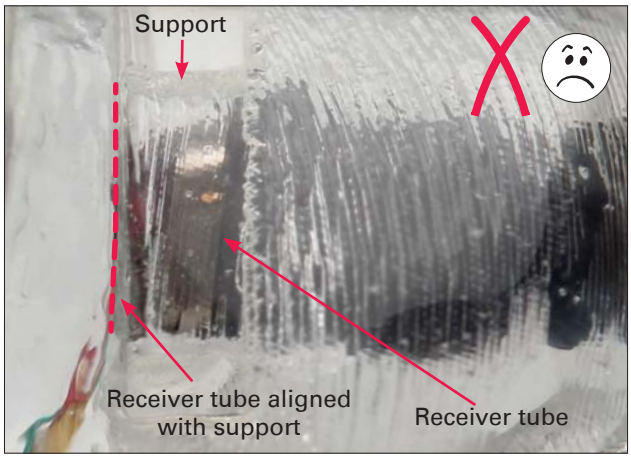
3a. **Horizontal**. Place receiver in support. Correct placement in support.



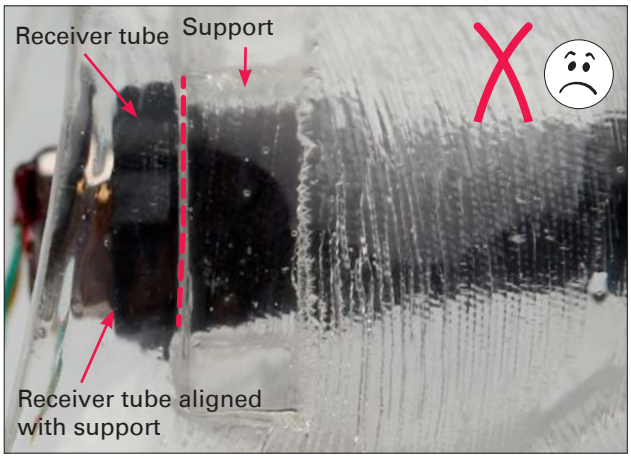
3b. **Vertical**. Place receiver in support. Correct placement in support.



4a. Align the end of the receiver suspension with support surface as illustrated.



4b. Receiver suspension NOT align with support surface.



4c. Receiver suspension NOT align with support surface.

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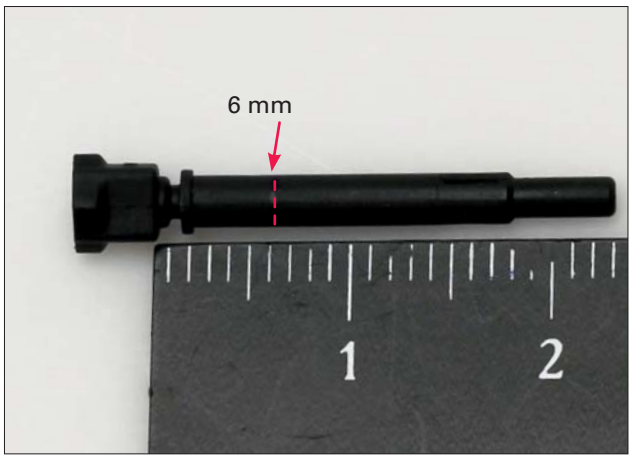
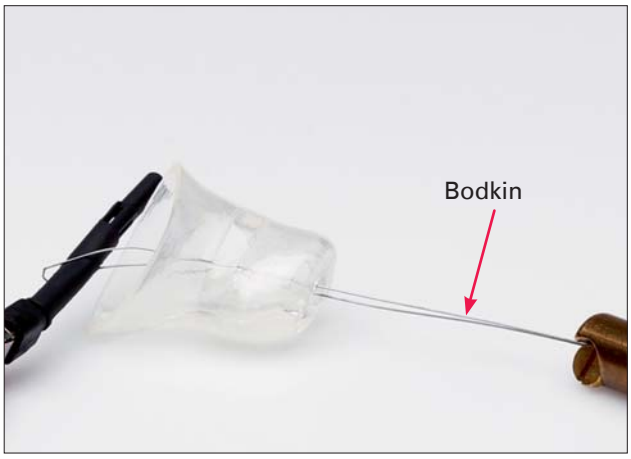
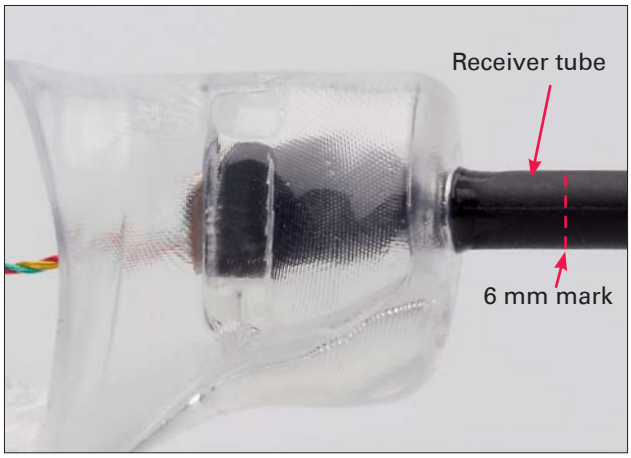


1. The tube length **must be between 3-6 mm**. The nominal lenght is 4 mm. Make a mark on the tube.



2. Insert bodkin into the receiver hole from the canal tip side. Place the receiver tube in the bodkin and pull it through the receiver hole.



3. Find the best position for the receiver tube and glue.

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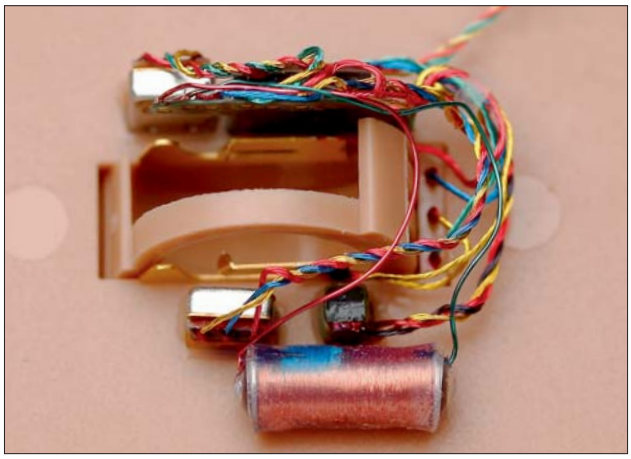
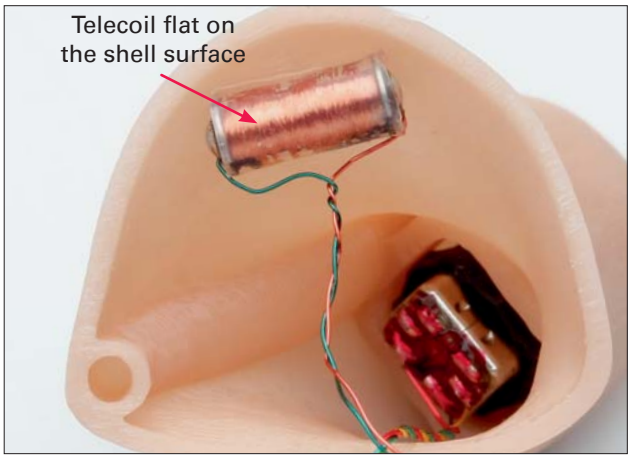
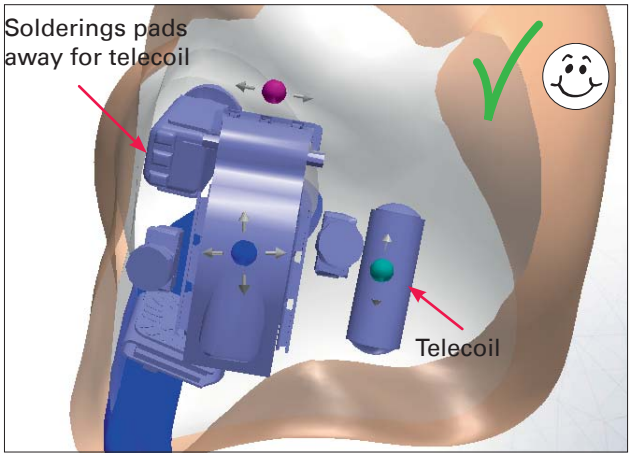


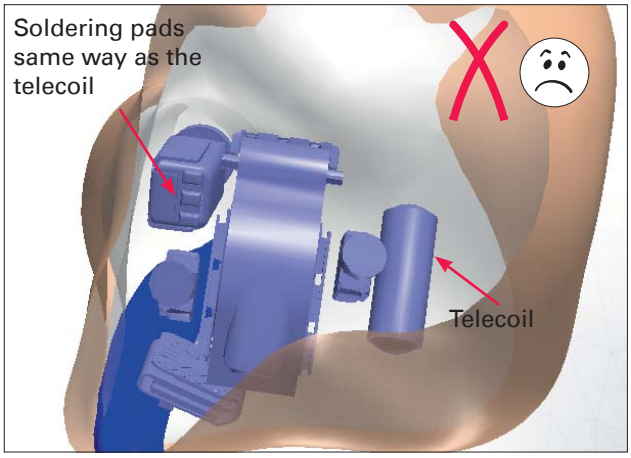
1. Place the telecoil flat on the faceplate. Be aware that the telecoil not touching the receiver and the amplifier.



2. If there is no space on the faceplate, place the telecoil flat on the surface of the shell. Be aware that the telecoil not touching the receiver and the amplifier.



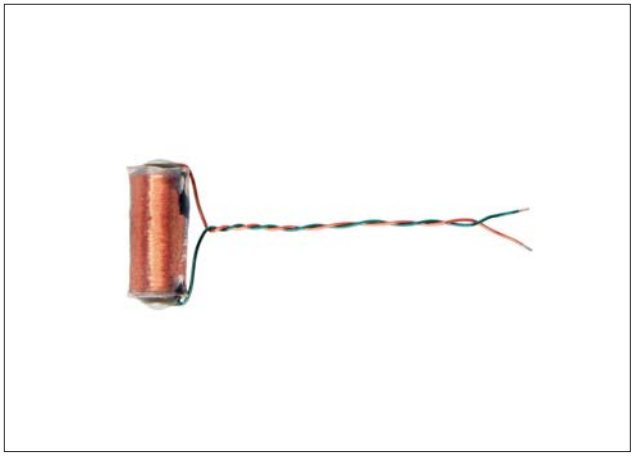
3a. When placing the receiver it is important that the soldering pads are away from the telecoil. This is to prevent feedback.



3b. Wrong placement for receiver. Soldering pads same way as the telecoil.

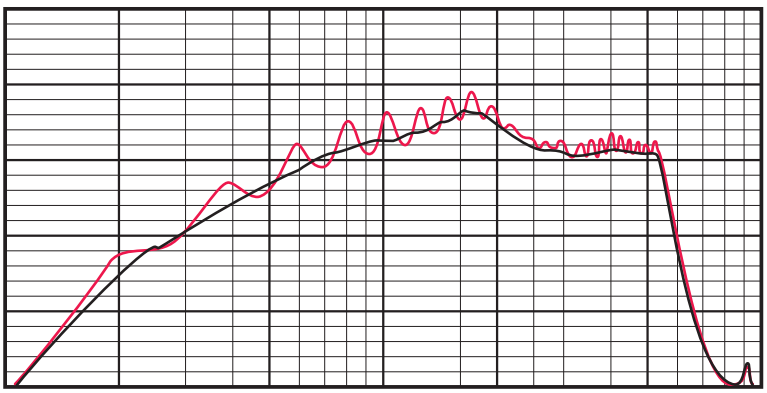
Receiver litz wires:
The receiver draws a lot of current. To reduce additional magnetic radiation due to the current flow. (Beside the radiation from the receiver coils), the receiver litz wires have to be twisted. If a filter is implemented the wires should be twisted before and after the filter. See the picture on the right side.

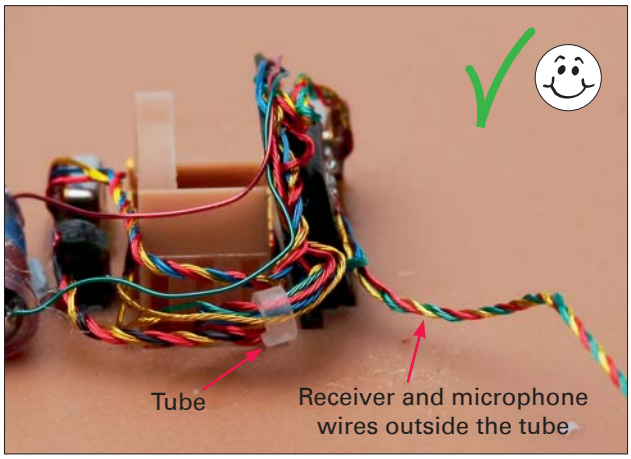
Telecoil wires:
Open wires have the potential to pick-up the magnetic field that is produced by the receiver. To reduce the risk to pick-up magnetic fields, the telecoil wires have to be twisted as narrow as possible to the telecoil around 6 to 8 times.



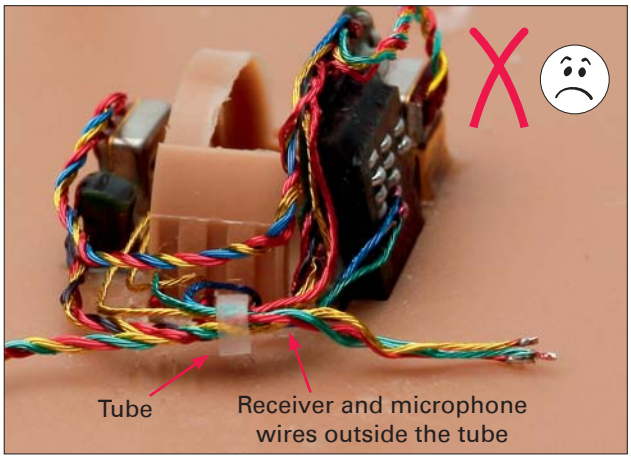
Black curve = Twisted wire

Red curve = Non twisted wire

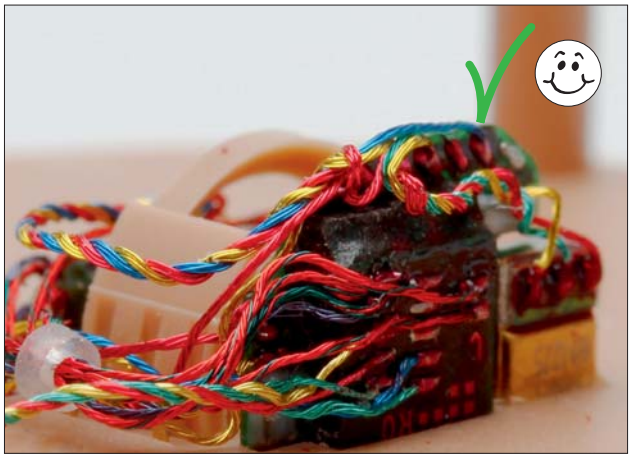




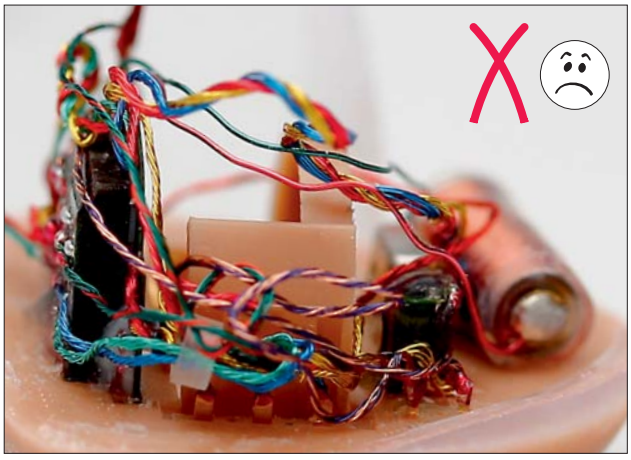
1. It is not allowed to place the litz wires for the receiver and microphone in the tube. It will cause feedback.



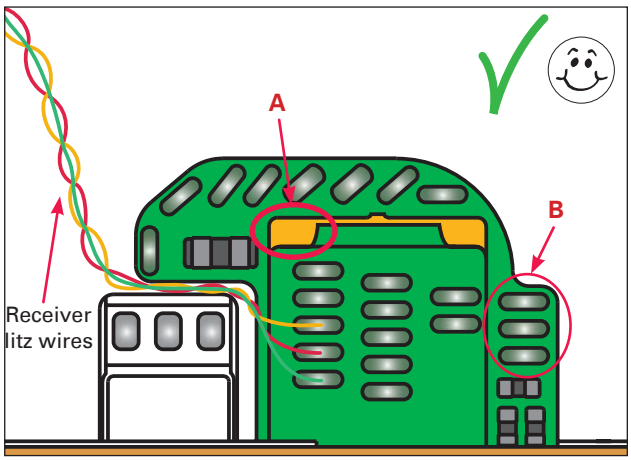
2. It is not allowed to place the litz wires for the receiver and microphone in the tube. It will cause feedback.



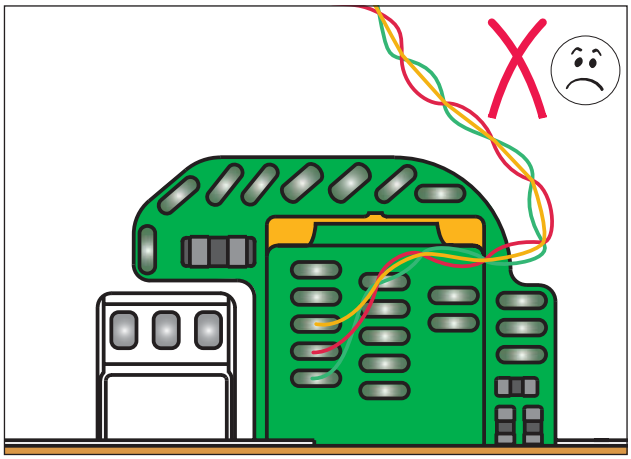
3. Place the litz wires nice on the faceplate before assembly.



4. It should **NOT** look like this.



1. **A**. When Receiver litz wires comes right next to this area, streamer range drops ~14cm.
B. The receiver wires should not get close to this area.



2. It should NOT look like this.

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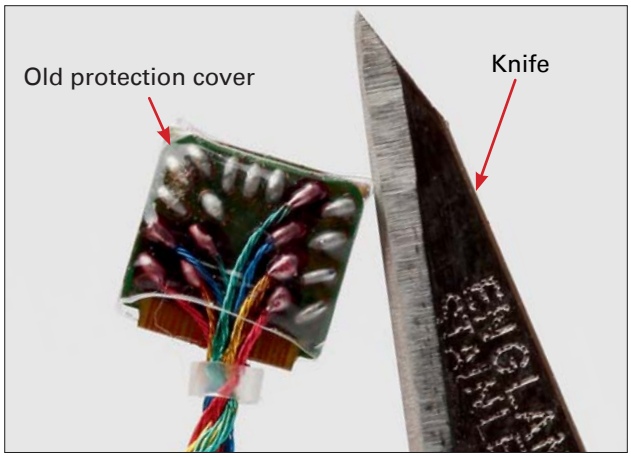
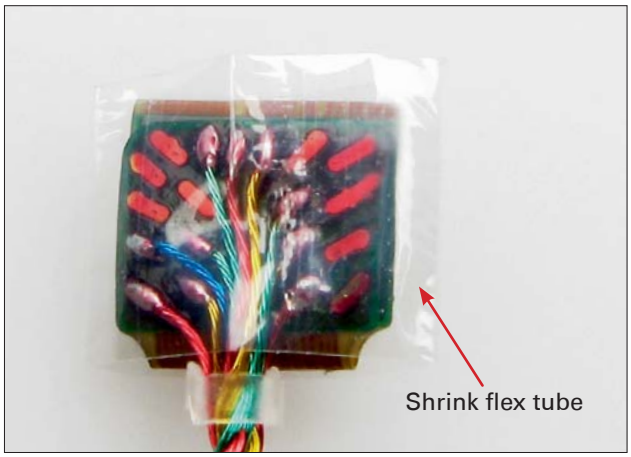
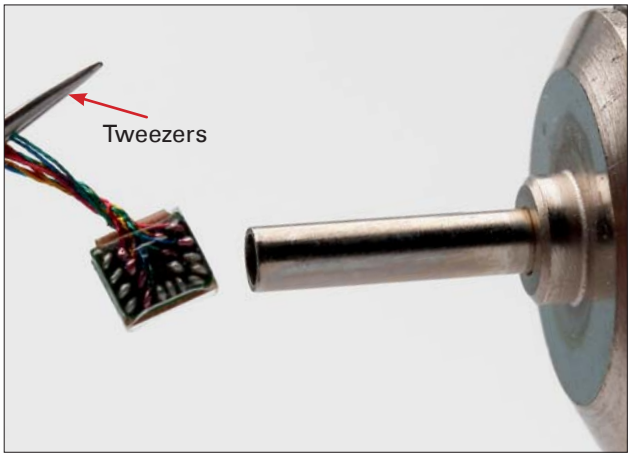


1. Cut off old protection cover using a knife.

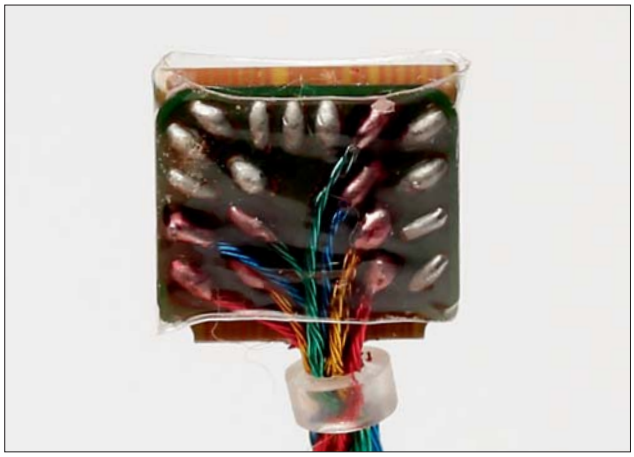


2. Acquire 5 mm shrink flex tube and place it around the amplifier.

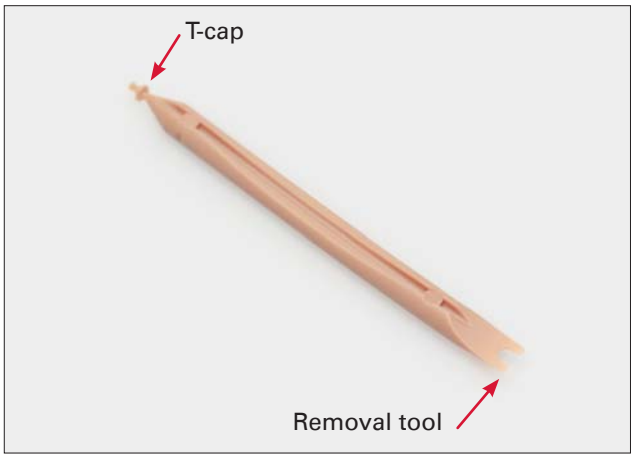
3. Temperature 200°C. Air speed 7.



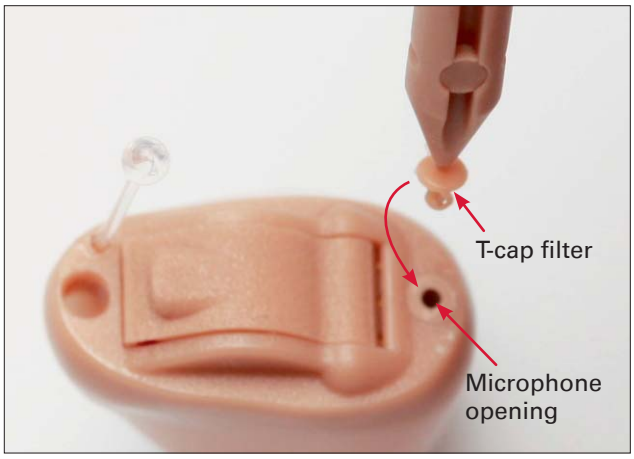
4. Keep the tube fixated around the amplifier using tweezers while heating it with a hot air pencil.



5. The protection should be evenly positioned covering the entire amplifier.



1. T-cap filter and removal tool.

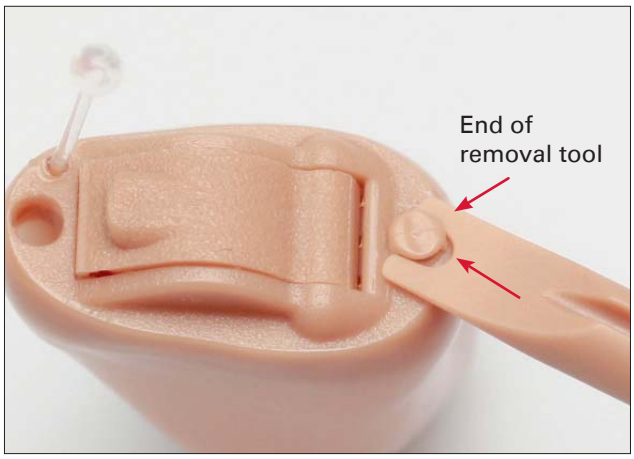


2. Place the T-cap in the microphone opening (tube).

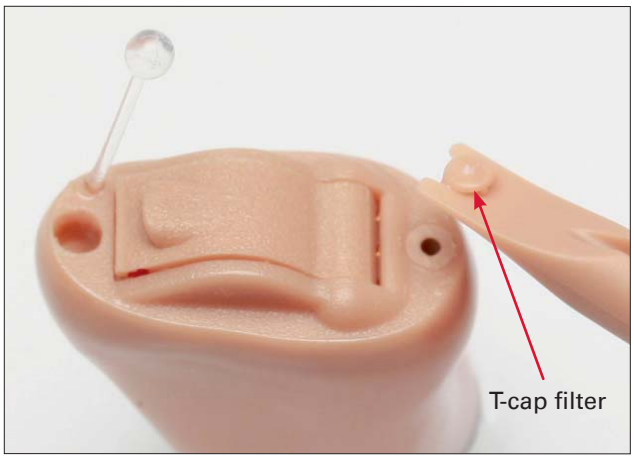
3. Slightly break the handler so that the T-cap filter is free.

4. T-cap filter in place.

REMOVAL OF T-CAP FILTER *)



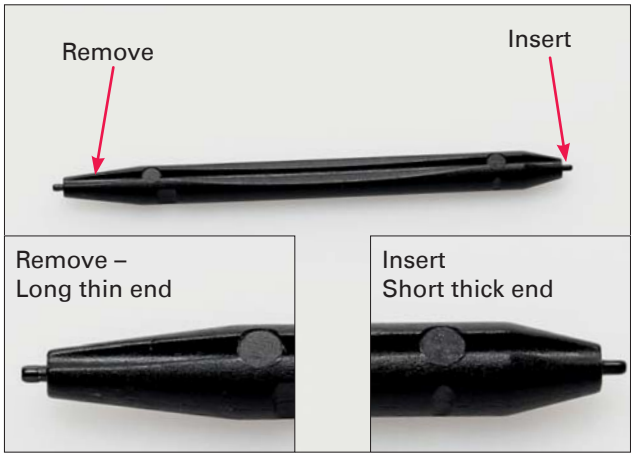
1. Remove T-cap filter. Using the removal end of tool. Insert tool under the T-cap edge, and lift the T-cap filter up and out



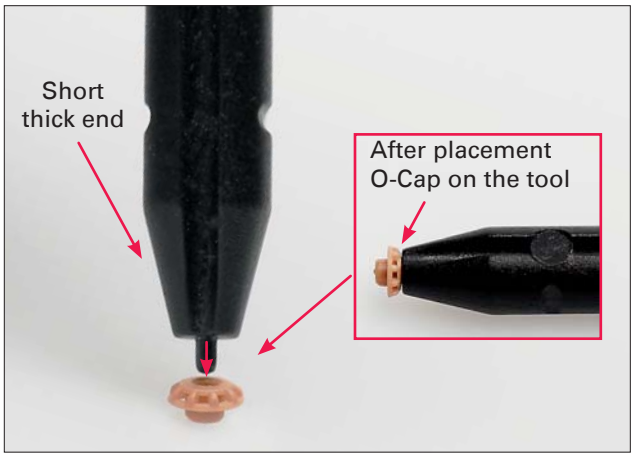
2. Remove the T-cap filter.

*) The T-cap is the microphone filter for IIC, CIC & CICP.

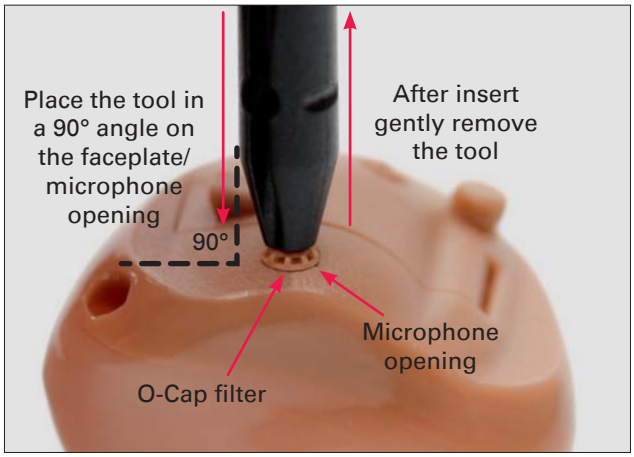
ASSEMBLY – PLACEMENT OF O-CAP FILTER *)



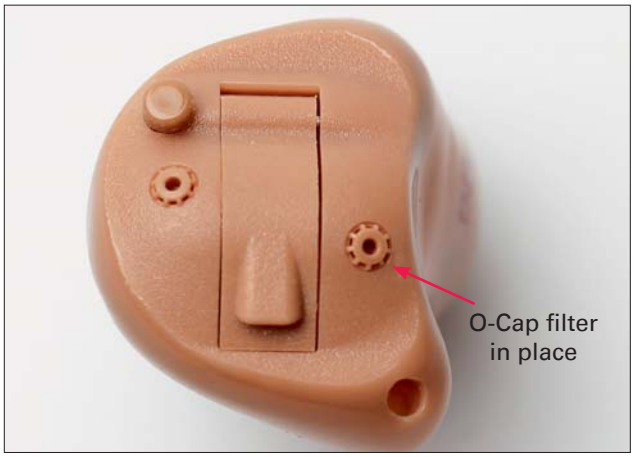
1. O-Cap placement and removal tool.



2. Place the O-Cap filter on the tool (short thick end).

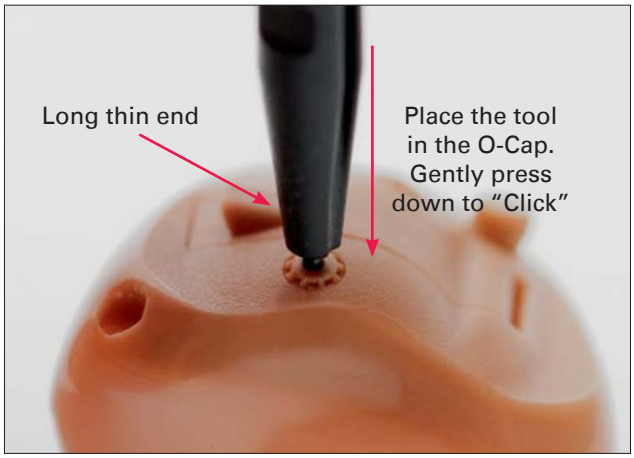


3. Place the tool incl. the filter 90° angle on the faceplate/microphone opening and carefully remove the tool.

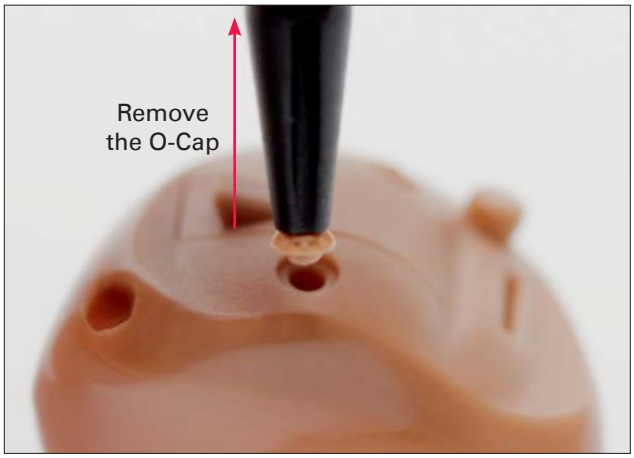


4. O-Cap filter in place.

ASSEMBLY – REMOVAL OF O-CAP FILTER *)



1. Use the removal end of the tool to remove the O-Cap filter. Place the tool in O-Cap. Gently press down to "Click".



2. Remove the O-Cap filter.

*)The O-cap is the microphone filter for ITC, ITCD, ITCPD and ITED.

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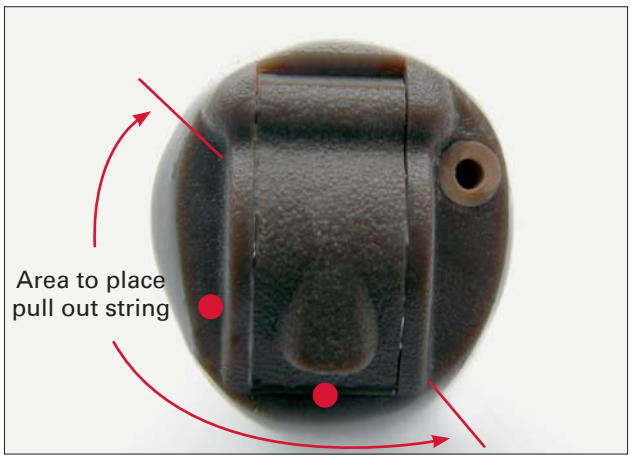
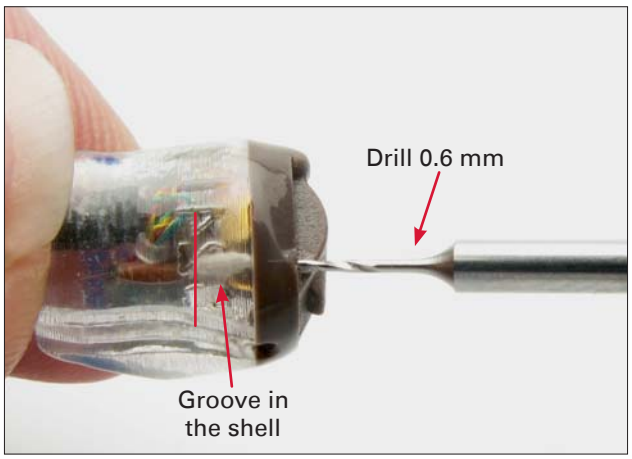
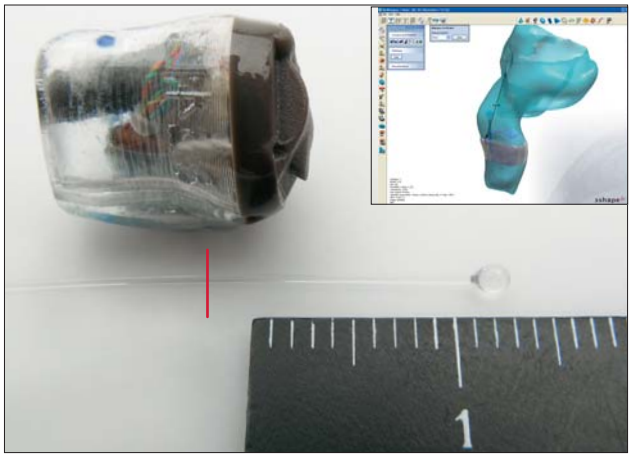


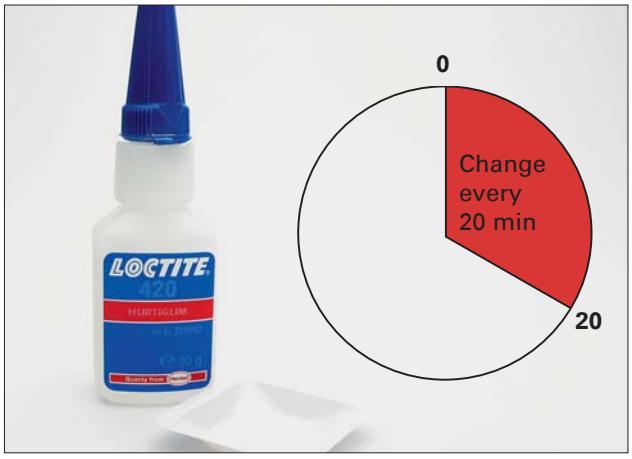
1. Placement of the pull-out string in the shown area.



2. Drill the opening for pull-out string with a drill 0.6 mm through the faceplate and make a groove in the shell.

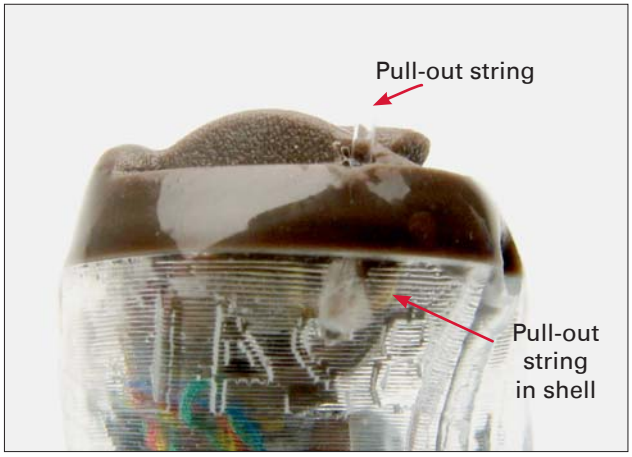


3. Length of the pull-out string is measured during the modeling and indicated on tech production ticket.

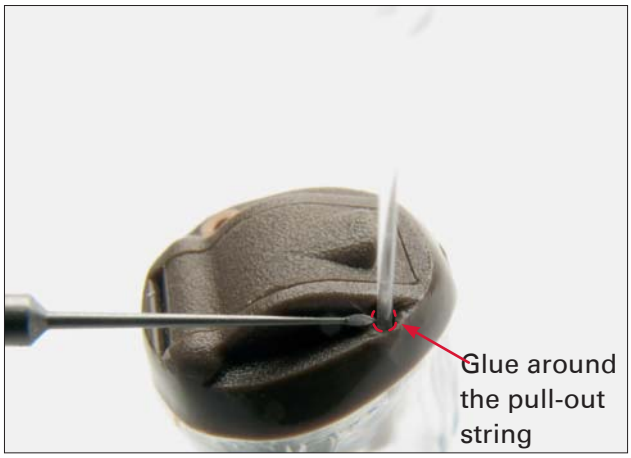


4. **Important** – Remember to change the glue and the tray every 20 min.

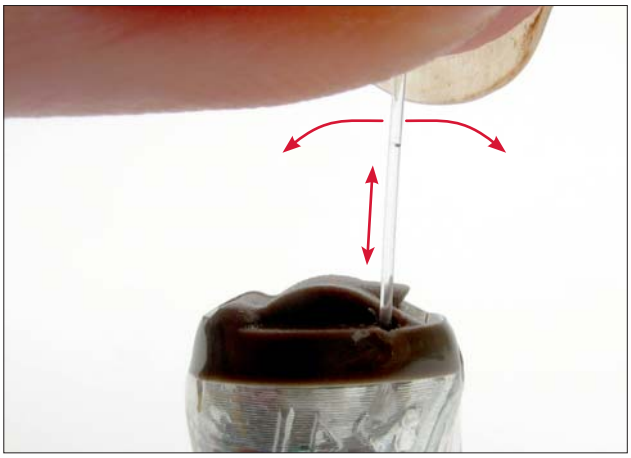
5. Dip the pull-out string in the glue.



6. Pull-out string mounted in the hole and shell.



7. Glue around the pull-out string. Let the glue harden for a minut before testing the gluing.



8. Check that the pull-out string is glued correct.

Note: IIC needs to have a longer Pull-out string 10-12 mm, than CIC & CICP.

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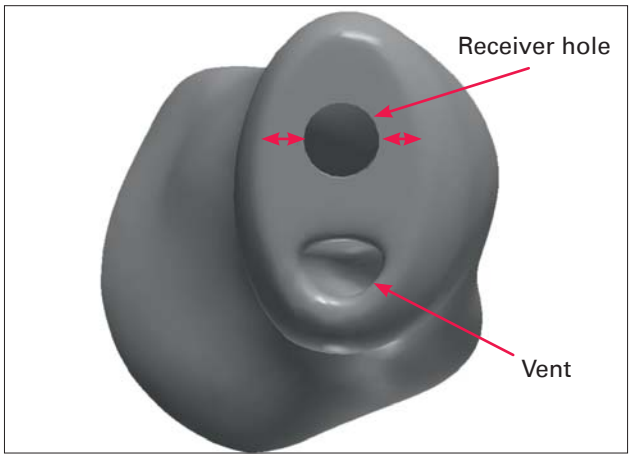
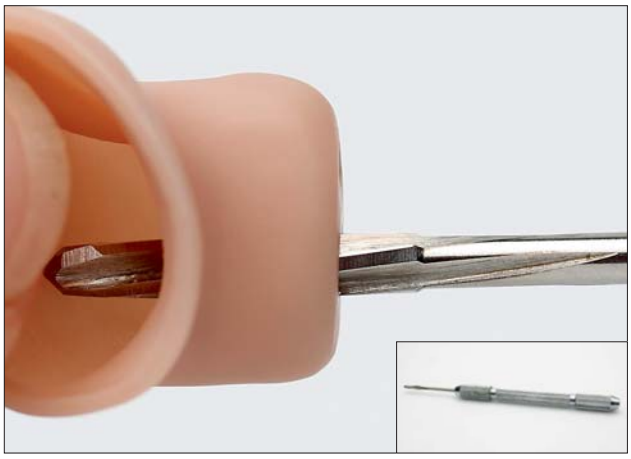
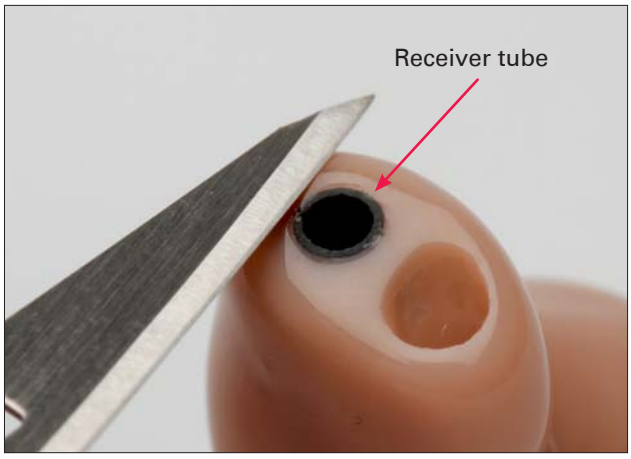


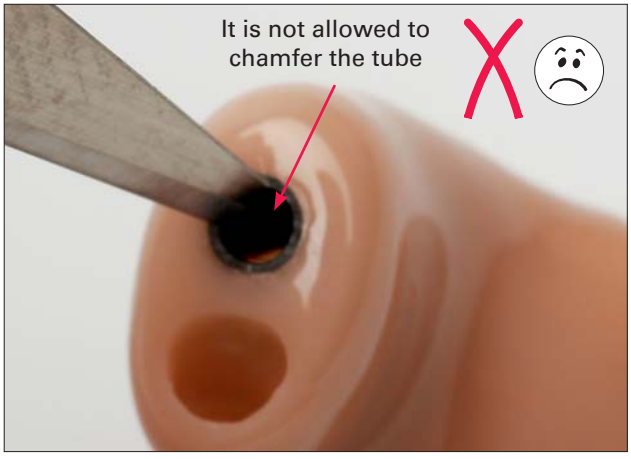
1. The hole for the receiver and vent must not be too close to the canal tip edge.



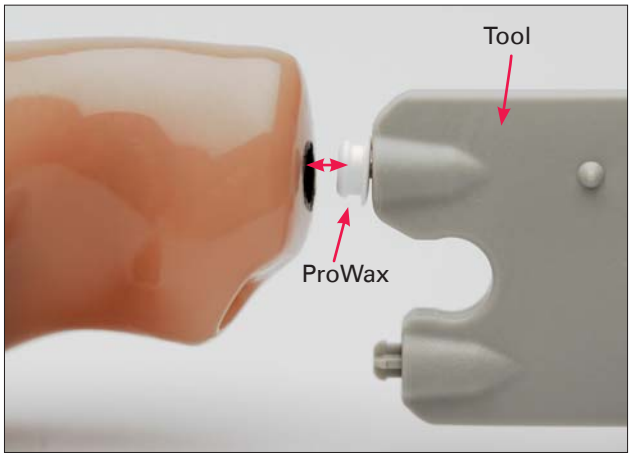
2. Ream the opening with a 2.6 mm reamer.



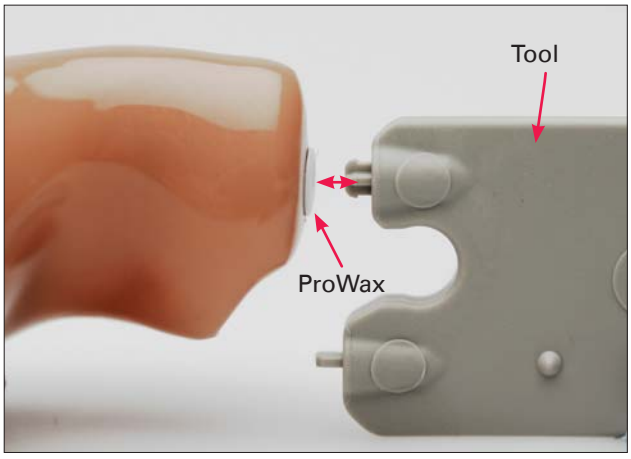
3a Before you place the ProWax cut the receiver tube in an even cut.



3b. It is **NOT** allowed to chamfer the tube.



4. Place the ProWax.



5. Remove the ProWax.

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This test should be carried out whenever an instrument has been assembled either in production or service.

The transmitting range of an instrument is tested using a Range Tester (#890-10-070-00).
The instrument under test must not be powered by an external power source only battery as connected wires can interfere with the transmitting range of the instrument.

Always test one instrument at the time and make sure that no other transmitting instruments are within the range of the Range Tester. The test is passed if connection succeeds and the green diode lights up for the given minimum range of 19 cm. For more information refer to the Generic Wireless rang test procedure.

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