

Audiological bulletin no. 50

Customising receiver ear-sets for Passion hearing aids and removing the battery drawer to connect programming cables

News from Audiological Research and Communication

In this bulletin you can learn how to assemble the Passion EarWare. The receiver ear-sets described in this bulletin are ear-sets from the Widex EarWare RIC box for Passion hearing aids. This bulletin also contains instructions on how to correctly remove the Passion battery drawer to connect the programming cables.



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The procedure of fitting a Passion RIC ear-set is very similar to fitting the ear-set of an *m* hearing aid or a 9-model. An additional step in preparing the receiver ear-set is assembling the EarWire with the receiver.

Acoustic identities: Instant open, Instant flex or Custom flex (vented)

The Passion hearing aid is flexible and can be configured as an instant open fitting or an instant/custom flex fitting with a vent. When fitting a Passion RIC hearing aid, make sure that the physical and acoustic identities are the same. Once you have the physical ear-set of the Passion RIC hearing aid, you must select the corresponding acoustic identity in Compass. This ensures that the correct data set is loaded into the hearing aid.

Fitting type	Acoustic identity	Ear-set tip
Open fitting 	Wire open	Instant receiver ear-tip open, small (S) or large (L)
Flex fitting with optional vent 	Wire flex	Instant receiver ear-tip flex (size 8 to 11) or Custom receiver ear-tip flex

Note that you cannot convert a Passion hearing aid to have a closed instead of an open acoustic identity and vice versa when you fit Passion with the iP5 programmer. When using iP5, make sure that Passion has the desired acoustic identity, i.e. *wire open* or *wire flex*.

Fitting the EarWare

Passion EarWare box

When you fit a Passion RIC hearing aid, you need the EarWare box for Passion. It contains all the items you need to build a Passion ear-set, that is EarWires in different lengths for the left and for the right ear, instant receiver ear-tip open and instant receiver ear-tip flex in several sizes, lock rings, anchors, wax guards, vent tubes, vent blocks, receiver housings, an assembly tool, a measurement tool, a measurement dummy and an instruction sheet showing how to assemble the ear-set.

EarWires for the right ear are marked with red numbers and EarWires for the left ear are marked with blue numbers.

Note: Do not use ear-tips from the *m* or *élan* EarWare box for Passion hearing aids and vice versa.

Step 1: Finding the appropriate EarWire length



Start the fitting process by finding the appropriate length of EarWire.

To find the correct EarWire length, you can use the measuring tool in the EarWare RIC box.

Place the measurement tool on the client's ear. The desired receiver ear-tip must be level with the centre of the tragus.

The ear in the photo to the left needs a length 2 EarWire.

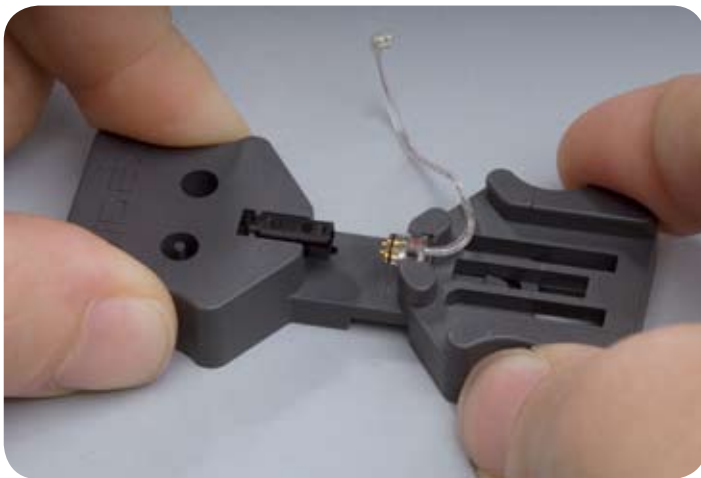
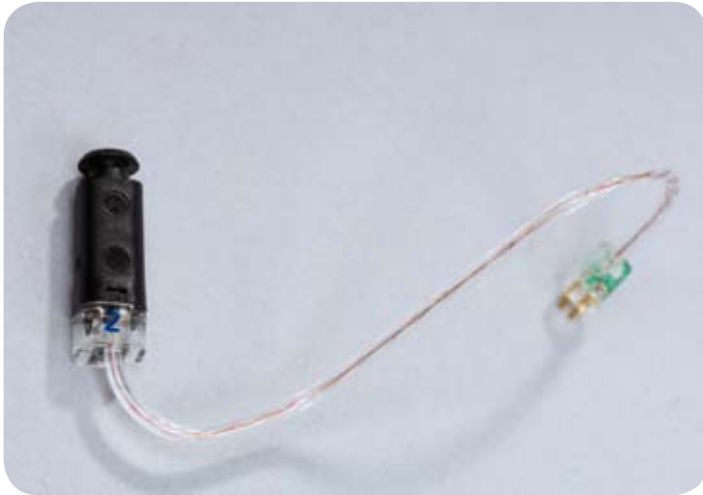


Alternatively you can use the EarWire measurement dummy available in the EarWare RIC box.

Place the hearing aid dummy on the client's ear. Count the plastic markings from the top down. They correspond to the available EarWire lengths.

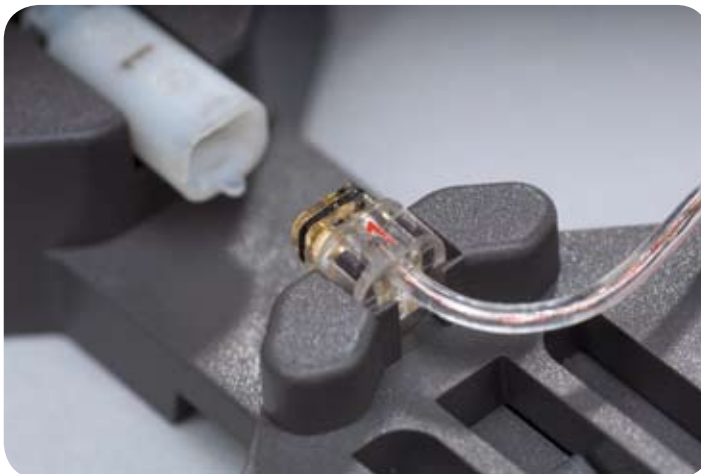
The ear in the photo will be best fitted with a length 2 EarWire.

Step 2: Connecting the receiver to the EarWire and attaching the NanoCare wax guard



Place the EarWire with the black protector in the black assembly tool. Disconnect the EarWire from the protector and dispose of the protector.

Note that the number printed on the terminal end of the EarWire should be facing upwards.



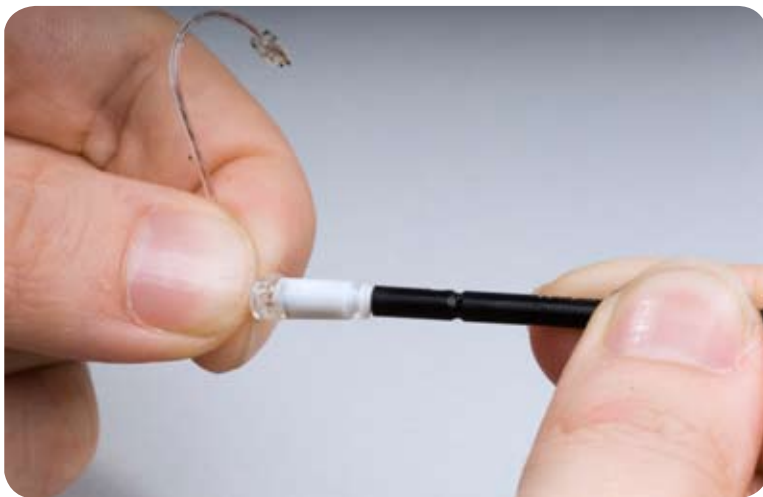
Place the receiver housing with receiver inside in the assembly tool with the side with the number 1 upwards and the small plastic pin downwards. Place the EarWire in the assembly tool with the number pointing upwards.

Push the tool together.

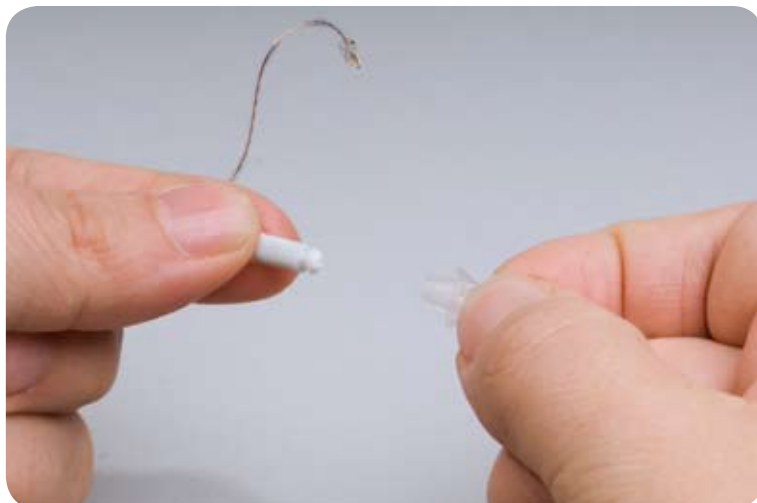
Remove the EarWire by lifting it upwards and out of the tool.



Attach the NanoCare wax guard to the end of the receiver that is not attached to the EarWire. The procedure used is the same as when attaching a wax guard to a Widex ITE or CIC hearing aid.



Step 3: Attaching the receiver ear-tip: Instant open, Instant flex or Custom flex.



Instant receiver ear-tip open

For open fittings select an Instant receiver ear-tip open. This receiver ear-tip is available in a small (S) and a large (L) version. Select the appropriate size for the client's ear canal.



Slide the Instant open ear-tip onto the receiver housing.

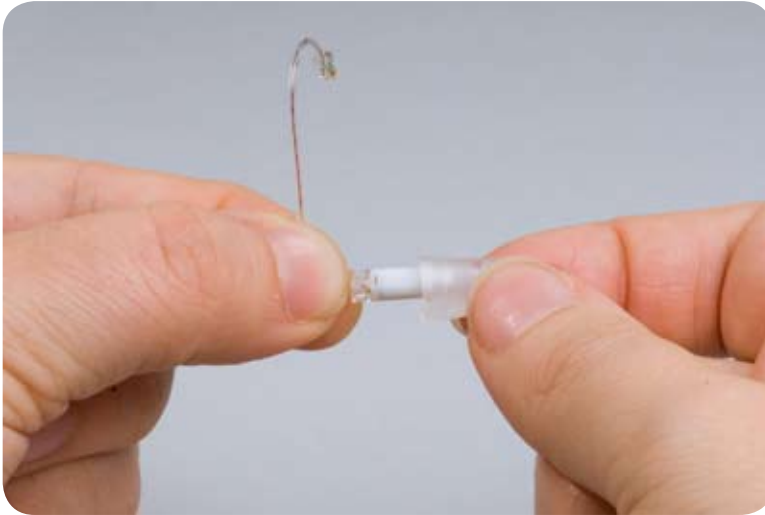


Make sure the ear-tip is securely fastened to the receiver housing.



Instant receiver ear-tip flex

Select the appropriate receiver ear-tip from the four sizes, from 8 (smallest) to 11 (biggest).



Push the receiver housing into the larger of the two canals in the Instant receiver ear-tip flex.



Make sure the blue or red number on the EarWire and the anchor holes are still visible. Vent: There are three vent options for the Instant receiver ear-tip flex: 1.7 mm (default), 1.0 mm and closed. 1 mm vent: insert the vent tube in the Instant receiver ear-tip flex. 0 mm vent: insert the vent block in the Instant receiver ear-tip flex.

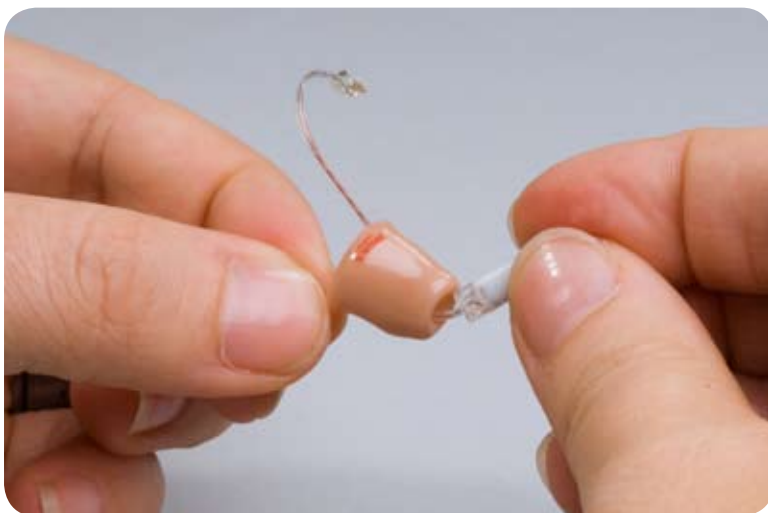


Custom receiver ear-tip flex

For the Custom receiver ear-tip flex place the lock ring onto the receiver housing. The lock ring makes sure that the receiver ear-tip is sealed acoustically and that the receiver sits properly in the Custom receiver ear-tip flex.



Insert the receiver and EarWire backwards onto the Custom receiver ear-tip.



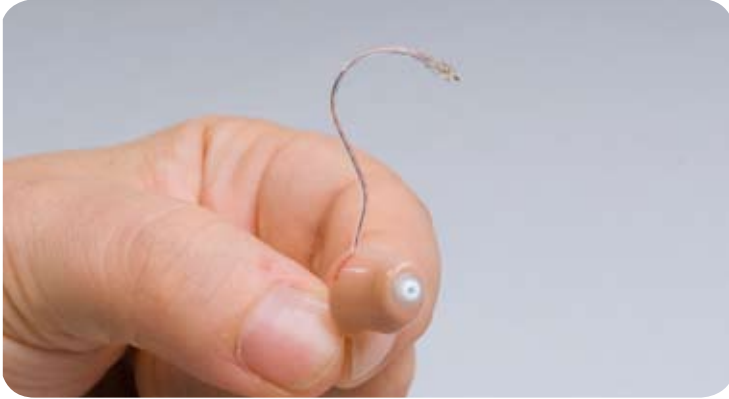


Push the Custom receiver ear-tip over the receiver housing.

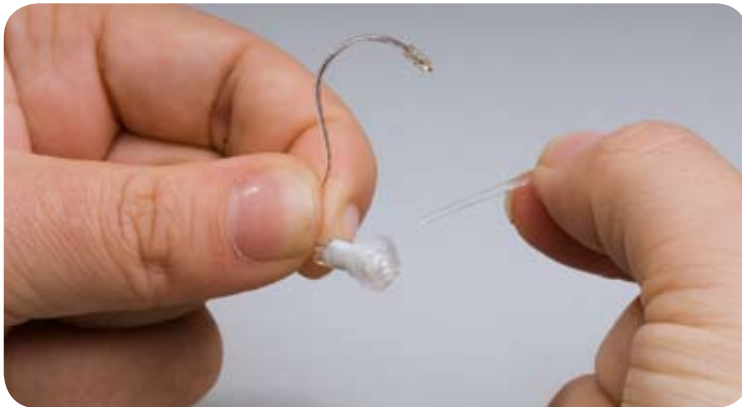


Make sure that the Custom receiver ear-tip is firmly secured by the lock ring.





Step 4: Trimming the anchor (Instant open and Instant flex) if needed

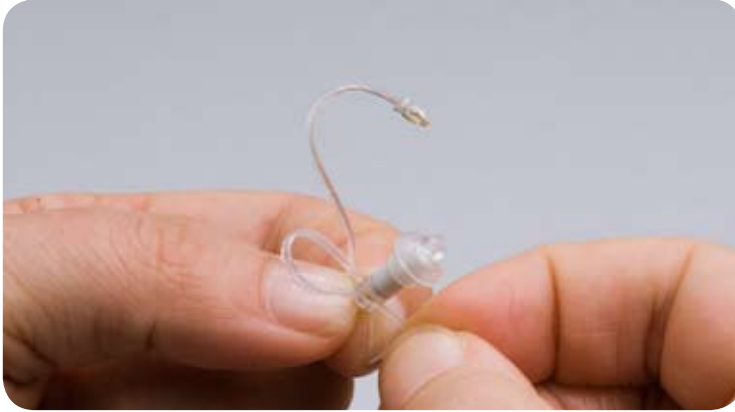


Thread the pointed end of the anchor through the upper hole.



Pull the anchor until it is stopped by the grip at the end.





Now bend the anchor downwards until you can guide the pointed end through the lower hole to form a small loop.



Define a suitable loop size according to the ear canal of the client.



Cut off any excess anchor with fine-cutting nippers or scissors, leaving only the loop.

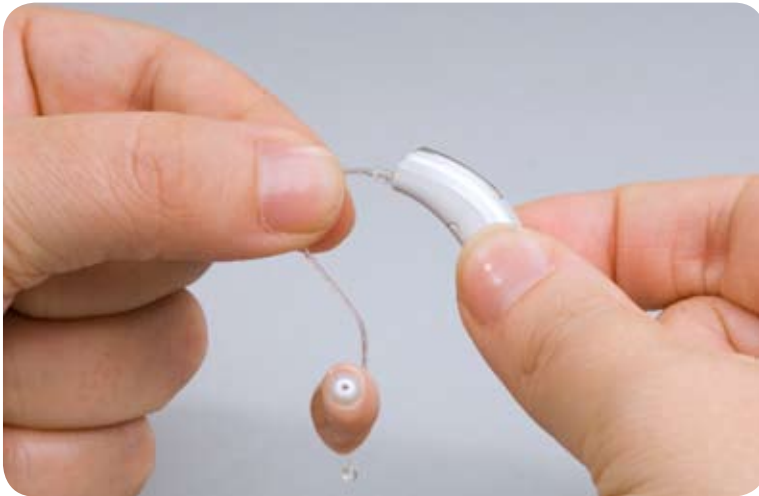


Take care to cut off all the excess anchor protruding out of the hole, so that the end of the anchor loop is flush with the small hole and there are no sharp edges.

Step 5: Connecting the EarWare to the hearing aid



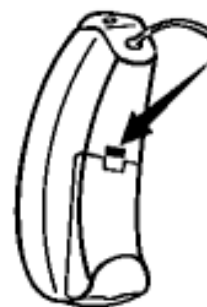
The EarWire is connected to the hearing aid by means of a click-on mechanism.



To disconnect the receiver ear-set from the hearing aid, pull the ear-set firmly.



Insert the colour coding (blue for left, red for right) above the battery compartment of the hearing aid.



Step 6: Placing the hearing aid on the ear

Place the hearing aid behind the client's ear and place the receiver ear-tip in the ear.



The hearing aid should rest comfortably behind the ear without hanging freely above the ear or pulling the hearing aid or the ear-tip.



When the hearing aid with the receiver ear-set is positioned correctly on the ear, the EarWire should closely follow the contour of the ear.

EarWare maintenance

Exchanging the NanoCare wax guard

Instruct the client thoroughly on how to change the NanoCare wax guard. The receiver can remain in the receiver housing when exchanging the NanoCare wax guard. For Custom receiver ear-tips flex, exchange the NanoCare in the same way as you would with an ITE or CIC hearing aid.

Important

Instruct the client thoroughly that the EarWire may never be washed in water.

Replacing the receiver

If the receiver stops working properly, it should be replaced. See below for instructions on how to replace the receiver for each Passion receiver ear-tip type.

Replacing the receiver housing

To ensure a stable and secure joint, the receiver housing must be changed every time it is removed from the EarWire. The procedure for exchanging the receiver housing depends on the type of receiver ear-tip used.



Instant receiver flex

1. Push the receiver housing out of the Instant ear-tip by squeezing the solid ear-tip.
2. Place the EarWire and the receiver housing in the closed assembly tool with both the number printed on the receiver housing and the terminal end of the EarWire facing upwards.
3. Hold the EarWire and receiver housing in place while pulling the assembly tool open.
4. Remove the EarWire and the receiver from the tool.
5. Press the receiver and receiver housing into the hole with the pin of the assembly tool. The receiver should eject from the old housing.
6. Place the new receiver housing into the patent hole in the assembly tool, and press the receiver into the new housing.
7. Connect the new receiver housing to the new EarWire using the assembly tool. The number on the receiver housing and the terminal end of the EarWire must point upwards.
8. Attach a NanoCare wax guard.
9. Connect the Instant receiver ear-tip flex.



Instant receiver open

1. Disconnect the ear-tip from the rest of the ear-set by pushing it off.
2. Place the EarWire and receiver in the closed assembly tool.
3. Hold the EarWire and receiver in place while pulling the assembly tool open.
4. Remove the EarWire and receiver from the tool.
5. Press the receiver and receiver housing into the hole with the pin of the assembly tool. The receiver should eject from the old housing.
6. Place the new receiver housing into the patent hole in the assembly tool, and press the receiver into the new housing.
7. Connect the new receiver housing to the new EarWire using the assembly tool. The number on the receiver housing and the terminal end of the EarWire must point upwards.
8. Attach a NanoCare wax guard.
9. Connect the Instant receiver ear-tip open.

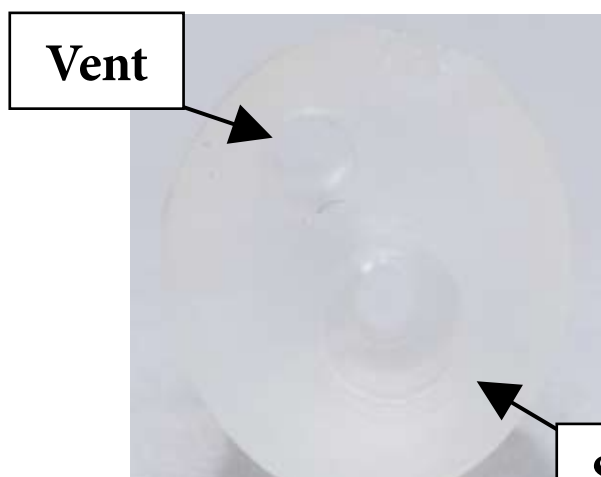


Push the receiver and EarWire out of the custom receiver ear-tip in this direction

Custom receiver flex

1. Disconnect the EarWire from the BTE part/housing by pulling it off the hearing aid.
2. Push the receiver and EarWire using the NanoCare holding pin in the direction as shown in the picture.
3. Remove and discard the lock ring.
4. Place the EarWire and receiver in the closed assembly tool.
5. Hold the EarWire and receiver in place while pulling the assembly tool open.
6. Remove the EarWire and receiver from the tool.
7. Press the receiver and receiver housing into the hole with the pin of the assembly tool. The receiver should eject from the old housing.
8. Place the new receiver housing into the patent hole in the assembly tool, and press the receiver into the new housing.
9. Connect the new receiver housing to the new EarWire using the assembly tool. The number on the receiver housing and the terminal end of the EarWire must point upwards.
10. Attach a NanoCare wax guard.
11. Place a lock ring on the new receiver.
12. Thread the EarWire through the Custom receiver ear-tip as described in step 3 of Fitting the EarWare.

Sound bore and vent in the Instant receiver ear-tip flex



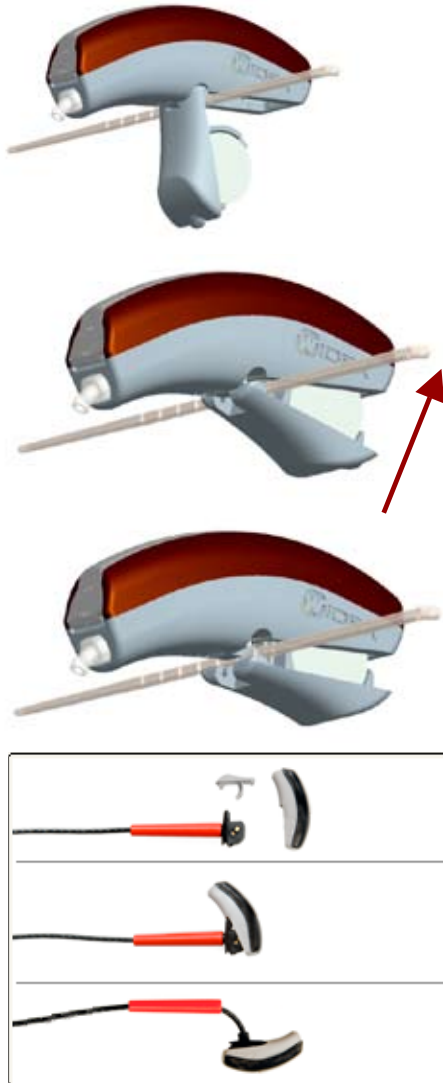
The Instant receiver ear-tip flex has two canals: The sound bore for the receiver housing (lower canal) and the vent canal (upper canal). You can block the smaller canal partially or completely.

1 mm vent: insert the vent tube (1.7 mm > 1.0 mm)

0 mm vent: insert the vent block

How to connect the programming cables to a Passion hearing aid

The Widex CIC programming cables are used to program Passion. Before you can connect these, you must remove the battery drawer. In order not to damage the tiny hinges of the Passion hearing aid we recommend that you follow the procedure below to remove the battery drawer.



Open the battery drawer at an angle of 90 degrees. Insert the loose anchor between the hinges. See the pictures to the left.

Keep the anchor in place and push the battery drawer as if to close it.

Remove the battery drawer. The Passion hearing aid is now ready to be connected to the Widex programming cables. Use the same cables as for the CIC hearing aids.

Click them on at an angle of approx. 30 degrees.

When you have finished programming the Passion hearing aid, remove the programming cables.

Attach the battery drawer to the hearing aid as shown in the picture to the left.

Push it firmly into the hinges. Open the battery drawer and insert a battery (size 10), then close the battery drawer.



Tips to correct bad fits

Symptom	Cause	Possible remedy
Hearing aid hanging above the ear	EarWire too long	Choose a smaller length of EarWire.
EarWire pulling at the ear and hearing aid	EarWire too short	Choose a larger length of EarWire.
EarWire protruding from the ear canal	EarWire too long Anchor loop too large Anchor not placed appropriately	Choose a shorter length of EarWire Make the anchor loop smaller Make the anchor loop larger and position the anchor outside of the ear canal
Discomfort or itching in the ear canal	Anchor not trimmed appropriately Ear-set too small Ear-tip incorrectly sized Anchor size or position inappropriate	Check that the anchor is trimmed flush with the small hole of the EarWire Choose a larger length of EarWire Choose a different size of ear-tip. Make the loop smaller and position the anchor inside the ear canal
Ear-tip detaches from the ear-set	Ear-tip not firmly pressed onto ear-set Ear-tip size is too large and so not easily removed from ear canal	Check that the ear-tip is firmly attached to the ear-set Choose a smaller ear-tip
Hearing aid easily detaches from the ear-set	Ear-set has been attached and removed too many times Ear-set is being inappropriately removed	Replace the ear-set Counsel the client on appropriate removal technique
Hearing aid falling off the client's ear	Anchor not providing adequate retention Ear-tip too small Incorrect size of ear-set	Make the anchor loop larger and position it outside the ear canal, or make it smaller and position it in the ear canal. Choose a larger size of ear-tip Choose another ear-set
No sound coming from the hearing aid	Ear canal blocked by wax	Arrange for or perform wax removal and clean or replace the receiver ear-tip