

Fitting Danalogic 6090-SP **step 1-3**

1. Get Connected



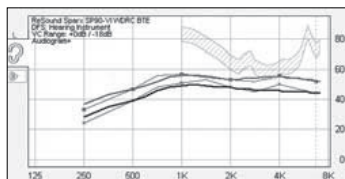
- Launch Aventa (version 2.5 or later)
- Connect the hearing instrument using CS44 programming cable
- Click "What's connected?" to identify instrument
- Linear scheme is default with Danalogic 6090-SP. If you wish to convert into WDR simply click on 'Convert to WDR'

2. Experience Level



- Default fitting rule Audiogram+ calculates takes the patient's Experience Level into account
- Set the patient's appropriate Experience Level in the Patient screen

3. DFS Calibration



- Enter Fitting Screen. Counsel your patient regarding DFS calibration and place the instrument on the patient's ears
- Click 'Yes' to start the DFS calibration
- Verify that the G50 gain curve is within or under the green Max. Stable Gain to minimise the risk of feedback
- Always perform DFS calibration to avoid feedback

Fitting Danalogic 6090-SP **step 4-6**

4. Fine Tune



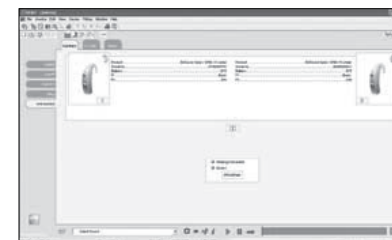
- Adjust gain parameters settings if necessary
- To accommodate a narrow residual dynamic range, it is important to carefully adjust the multi channel MPO.
- The arrows adjust in 1 dB steps
- If monaural changes are desired click on icon to unlink the hearing instruments

5. Multiple Programmes



- In the Environmental Programme drop-down list you can choose among several acoustic, T-coil and DAI-programmes
- Click on 'auto-relate icon' to apply the changes made to P1 to the other programmes (P2-P4)

6. Programme Instruments



- Proceed to End Session Screen and click 'Programme' to programme the instrument

Extras:

- In the End Session you can adjust and demonstrate the beep tones for Low Battery Indication, Programme change etc.
- The Volume Control Dynamic Range can be adjusted or set to enabled/disabled

Mr. X

Case 1: Experienced linear user



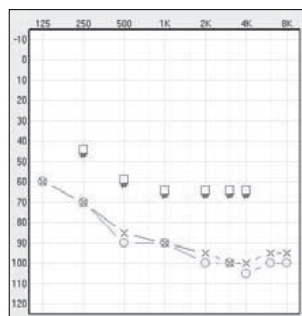
Gender & age:
Male, 40 years old.

Hearing loss:
Severe to profound hearing loss since birth.

Communication:
Uses primarily speech and also relies on FM-system.

History:
Always used analogue instruments and has experience with linear amplification and output limiting AGC-O. The instruments are worn out so he needs a replacement.

Concern:
Comfortable with analogue sound, and is worried about new digital instrument.



Fitting Mr. X:
The more severe a hearing loss tends to be, the stronger preferences for linear amplification you usually find - but it also depends on the experience of amplification in the previous device. For Mr. X's case the recommendation would therefore be to maintain a Linear-scheme as he is used to from his previous analogue device.

In Mr. X's case, having been used to output limiting AGC-O, the Soft Compression might be the best choice.

With Mr. X's background he will most likely benefit more from switching the Noise Reduction OFF. In case he is spending much time in noisy surroundings, two programmes can be created for increased comfort; P1 without Noise Reduction and P2 with Noise Reduction.

As Mr. X frequently uses an FM system at work, it is important that the setting is done correctly. Choose DAI and/or DAI+M from the multi programme drop list. Activate DAI-programme manually on the hearing instrument.

Pay special attention to:
Follow up on Mr. X's speech understanding compared to his previous hearing instrument.

Mr. Z

Case 2: Experienced power user



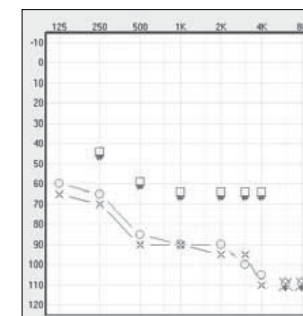
Gender & age:
Male, 70 years old.

Hearing loss:
Severe to profound hearing loss developed gradually over age.

Communication:
Mr. Z has problems catching details in high frequency sounds. Proficient in speech if enough power output is available.

History:
Always used digital power BTE's with compression, but needs more power.

Concern:
Afraid of not getting good enough digital quality and has problems with recruitment and handling loud sounds.



Fitting Mr. Z:
As Mr. Z is used to a non-linear amplification the best way to fit him with a Danalogic 6090-SP is with a WDRC-scheme. This way it is possible to provide him with a similar, but more powerful hearing experience than his previous hearing instrument.

Mr. Z will most likely benefit more from switching the Noise Reduction ON, especially if his previous hearing instruments had Noise Reduction feature. This is to increase comfort for him if he is spending much time in noisy surroundings.

Pay special attention to:
Pay attention to and adjust the compression if the volume control is used frequently.

Mrs. Y

Case 3: Mixed hearing Loss



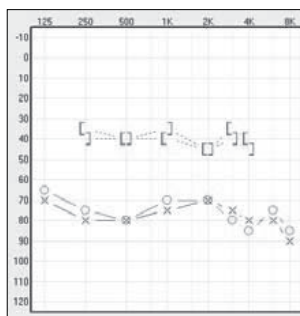
Gender & age:
Female, 55 years old.

Hearing loss:
Severe to profound hearing loss. She has osteosclerosis and has worn hearing instruments since her mid-twenties.

Communication:
She needs more amplification and assistance with speech clarity.

History:
She used two analogue devices with linear amplification and peak clipping and has unsuccessfully tried various digital devices in the last 3 years. Her hearing loss is getting worse due to age & stirrup and is getting more fixed.

Concern:
Mrs. Y is concerned about digital sound in hearing instruments. She has a tendency to get middle ear infection.



Peak Compression should be chosen if Soft Compression does not provide enough power and loudness. In Mrs. Y's case Peak Compression might be the best choice due to her previous experience.

With Mrs. Y's background and hearing loss she will most likely benefit more from switching the Noise Reduction OFF.

Pay special attention to:
Ensure comfortable ear moulds and re-calibrate DFS if any adjustment is made to the ear mould.

Fitting Mrs. Y:
End-users with conductive or mixed hearing loss often have strong preferences for linear amplification. Previous amplification experience is also a great indication for choice of amplification strategy in the new hearing instruments. Danalogic 6090-SP is delivered in Linear-scheme as a default which should be the starting point for Mrs. Y. For middle ear disorders it is advisable to watch out for recurrent infections. After performing DFS calibration the Max Stable Gain curve can be used to see if it is possible to increase the vent in the ear mould without risking feedback.

Mrs. W

Case 4: Profound hearing loss



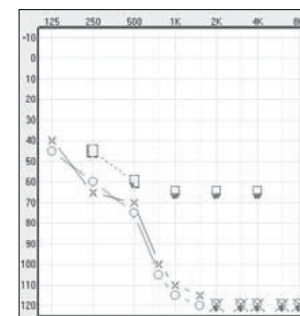
Gender & age:
Female, 45 years old.

Hearing loss:
Profound hearing loss since birth.

Communication:
She uses hearing instruments as supplement to lip reading and to control her own voice as well as hearing non-verbal sounds. Sign language is her main means of communication.

History:
Always used analogue instruments and is experienced with linear amplification and peak clipping.

Concern:
Looking for instruments to improve her overall understanding in speech.



With Mrs. W's background and hearing loss she will most likely benefit from switching the Noise Reduction OFF.

With cases like Mrs. W's, over-amplification in the lower frequencies are often needed. Pay attention to amplification in the high frequencies which can result in distortion.

Pay attention to and be aware of:
Can Mrs. W recognise environmental sounds? Is she alerted from sound at home, in traffic, at office etc?

Fitting Mrs. W:
The more severe a hearing loss is, the stronger preferences for linear amplification you usually find - but it also depends on the experience of amplification in previous device. For Mrs. W's case recommendation would be to maintain a Linear-scheme as she is used to from her previous analogue device.

The Peak Compression is chosen if Soft Compression does not provide enough power and loudness. For Mrs. W the Peak Compression might be the best choice due to her previous hearing instrument experience.

Ms. Q

Case 5, First time user



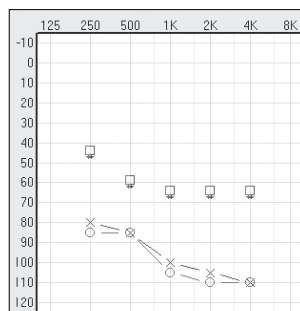
Gender & age:
Female, 2 years old.

Hearing loss:
Severe to profound hearing loss – only just discovered.

Communication:
Inarticulate sounds and sign language.

History:
Parents would like her to learn verbal communication, get sound impressions and get to interact outside the deaf community.

Concern:
How quickly will her new digital hearing instruments support her language training and social interaction?



Fitting Ms. Q:

Ms. Q is not used to loud input signals and to be somewhat careful with the existing hearing, it is recommended to change to a WDRC-scheme.

RECD for children is incorporated into Audiogram+ fitting rule to avoid over-amplification. When fitting hearing instruments on children and infants, it is important to fill in date of birth in Noah.

It might be advisable to avoid a DFS-calibration in the first fitting session to ensure a positive first

time experience for the child and perform the calibration later in the fitting process.

It is recommended that Noise Reduction is activated to increase comfort for her if she is spending much time in very active environments. On the other hand, if any indication that the feature impacts communication & language development, the Noise Reduction should be switched OFF to ensure consistent audibility.

For Ms. Q it is likely that the VC should be disabled, or a VC Cover should be used, so that she cannot accidentally turn her instruments up or down. The Volume Control can be enabled/disabled in Aventa (in the End Session Screen – Volume Control tab).

Pay special attention to:
Be careful not to under- or over-amplify. Carefully follow up on communication and language development

Summary Fitting step for **Case 1-5**

	Experienced user	Experienced power user
1. Get connected	Connect instrument. Keep Linear setting.	Connect instrument. Choose WDRC setting.
2. Experience Level	Set Patient level to Experienced User.	Set Patient level to Experienced User.
3. DFS Calibration	Enter Fitting Screen to conduct calibration. Always perform DFS calibration to avoid feedback.	Enter Fitting Screen to conduct calibration. Always perform DFS calibration to avoid feedback.
4. Fine tune	Adjust Gain & MPO parameters accordingly. Choose NR off, but prepare extra NR programme.	Adjust Gain & MPO parameters accordingly. Choose NR ON if previous hearing instrument had NR
5. Multiple Programmes	Include DAI/DAI+M for extensive FM usage. Click auto-relate-icon.	Click auto-relate-icon.
6. Programme Instruments	Programme in End Session.	Programme in End Session.
Extras	Adjust beep levels, VC range and set for Peak Compression. Follow up on speech understanding for new instrument.	Adjust beep levels and especially VC range if compression is used.

Mixed hearing loss	Profound hearing loss	First time user
Connect instrument. Keep Linear setting.	Connect instrument. Keep Linear setting.	Connect instrument. Choose WDRC setting.
Set Patient level to Experienced User.	Set Patient level to Experienced User.	Set Patient level to First Time User.
Enter Fitting Screen to conduct calibration. Do DFS calibration and if MSG allows try and increase venting.	Enter Fitting Screen to conduct calibration. Always perform DFS calibration to avoid feedback.	Enter Fitting Screen to conduct calibration. Always perform DFS calibration to avoid feedback.
Adjust Gain & MPO parameters accordingly. Choose NR OFF.	Adjust Gain & MPO parameters accordingly. Choose NR OFF.	Adjust Gain & MPO parameters accordingly. Choose NR ON, but only if no impact on speech development.
Click auto-relate-icon.	Click auto-relate-icon.	Include DAI/DAI+M for extensive FM usage. Click auto-relate-icon.
Programme in End Session.	Programme in End Session.	Programme in End Session.
Adjust beep levels, VC range and set for both Peak & Soft Compression. Ensure comfortable ear moulds and re-calibrate DFS if necessary.	Adjust beep levels, VC range & set for Peak Compression. Ensure enough amplification in low frequencies.	Adjust beep levels & cover VC or disable it. No over or under amplification + Attentive towards speech development.