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Signia Government Services: November 2024 Connexx Fitting Software Tour

Presenter: Lisa Perhacs, AuD

Hello and thank you for joining the Signia Government Services. November 2024 connects fitting software tour here on Audiology Online. My name is Lisa Perhacs and I'm part of the clinical development team here at Signia. Let's jump right in if you'd like to earn CEUs for today. After the course all you have to do is go to your pending courses on Audiology Online and pass the multiple choice exam.

Remember though, you must have a paid membership in order to earn CEUs that way, if you'd like assistance during the course or after, you can call the 800-753-2160 number or you can email a customer experiencecontinued.com we got a lot planned for you today. So after we're done with the course, you're going to be able to describe and perform the simple steps to complete a first fit with the Signia hearing aid. You're also going to be able to list the key features that are on by default and also optionally activated within Connects. And you could describe how dynamic soundscape processing 3.0 can be adjusted to customize for the wearer. I just want to cover a little bit about what the technology is doing before we go into programming.

We're using Signia IX with Real Time Conversation Enhancement. This is groundbreaking. It's built upon the Signia exclusive split processing. No one else has it in which we have a processor for speech processor for background sounds. On top of that, with Real Time Conversation Enhancement, we are adding three additional focus streams on top of the speech processor in order to pinpoint the speech and actually follow the conversations with multiple speakers and noisy environments without any effort.

We're using this three stage process. It's simultaneous the Analyze Augmented Adapt. It's analyzing the environment and taking samples. 192,000 points. It's sampling all throughout the environment, who's talking, what's going on, where the noise is.

And it's adapting a thousand times a second. So what you get is this live auditory space in which it doesn't matter if people are talking and moving around. You're able to hear comfortably without turning

your head. Follow the conversation. You are immersed in that surrounding sound.

You know what the environment is happening, but you are still able to follow every bit of the conversation and participate. This is the power conversation. This is IX technology. With Real Time Conversation Enhancement. We're using our Connect 9.12 software.

This was released in November of this year with our new contract update and you can see it when you open up the Connect software. You see that you're using 9.12. So let's go ahead and we're going to jump right into, into the software. So I'm going to go ahead and open up my software. I am using standalone, which is why the software looks the way it does in that I have a client list.

Your client list is built into Noah, but those three other icons are identical to what you see when you open your homepage. Your audiogram, Detect hearing aids, Hearing loss simulator. We're going to go right to detect hearing aids because guess what, your hearings are already pre programmed by us when you get them. So you don't have to do a first fit. It's already in there.

So detect the hearing aids. You'll see it'll automatically open up. It'll automatically show you the check marks of the left and the right. They're already indicated. And if you want to double check us, play the little speaker here and you could hear the sound.

Hold the receiver up to your ear and you'll hear the little startup tone. So with readout connected hearing aids is checked off. Just click. Okay. And now we're going to read out what's already been pre programmed in the hearing aid.

And you'll see they're already pre programmed because you've got your first fit right here. All right, so the first fit is right up on top there. Green check mark, it's done. What opens up is your logging page, your insights page. But there's no information there because we didn't wear them, we just programmed

them for you.

So this is something you'd go back to. It opens up every time you, you read out the hearing aids at following appointments so you can see what your patient did. I also want to point out what's new. We now show the battery strength when you're, when you're programming the hearing aids. So this is a great little indicator.

So if for some reason you're having difficulty with programming and your hearing aids are completely dead, that's why. So it's going to show you the battery strength right there. Oh, little hint if they're rechargeable, pop them in the charger. Half hour gives you five or six more hours of battery life. So if, let's say you only have a short amount of time with the patient, 15 minutes is going to give you enough juice to do your programming.

So just a little hint for you there. So let's go back to our first fit. First fit is done. Green check mark is there. Everything's matching targets.

Looks beautiful. Perfect. And you could double check your acoustic parameters. That's the sleeve you chose. Your fitting formula, we're going to default to NAL NL2.

Okay. So that's important to note. We default to NL2 unless you indicate. And then we can also program them to your manufacturer's fitting formula. The IX fit.

Little hint for you. They're both based off of NL2. So it doesn't matter whether you choose the IX Fit or the NL2, you're going to hit the targets. Why would you choose IX Fit over NL2 street prescriptive? Well, IXfit has a little bit more of adaptation for that form factor, so it's been optimized for that.

Rick, or that CIC or whatever it is that you're fitting. NL2 is going to be straight NL2. They're both going to hit target, so it really doesn't matter which one you choose. All right. I do want to point out that you have two options, Experienced and new.

Okay. I always start with experience. And we're going to first fit to experienced, But I had it on new because I wanted to show you that a new fit is actually 70% to target. It's a 30% cut. So if you indicate that you want it fit to new, it's a new patient.

You're going to have to do a lot of adjustments when you verify, because verification is to target. So always check experience. Always check that experience. But look, I made a change to this first fit page, which you certainly could do because the first fit was already done. But if you want to make a change to this page, remember, you lost your green check mark, and you always have to have that green check mark.

So any change you make, you have to recalculate the fit. Bottom right hand corner, click on recalculate fit. Two options. You can either override the fine tuning or keep the fine tuning and just recalculate either way. The reason why we give you two options is because 99% of the time, you're going to override.

Then you're like, all right, Lisa, then why do I have two options? Because you may have that patient that you have seen consistently maybe every week, maybe every other week for the past year, to get the hearing aids just right. And you. You finally are there, and they're finally happy. And you're like, oh, that's great.

I don't ever want to touch the hearing aid again. And then they come in for their annual, and you have to now recalculate based on their new hearing loss. You might want to keep all those adjustments you made and then go from there with the new hearing loss. But for the most part, you never wanted to

keep the existing fine tuning because let's say you made it louder for the patient. You made it louder for the patient.

You made it louder for the patient. Finally, you throw them in the booth. You see their hear losses changed. If you keep the existing fine tuning, it's going to keep every time you made it louder, louder, louder, and apply the new targets on top of that. So you're overfitting them.

So honestly, you're probably hardly ever using keep the fine tuning, and you're always choosing recalculate because that's going to wipe out the gain changes you need and then apply the new targets. It doesn't change when you recalculate the programs you added. You added 10 idiots. Whatever you've added, it doesn't change any of that. It just changes the gain in the instrument.

So we usually want to recalculate an override. So I'm going to do that. Recalculate an override. And now everything's great. Everything matches targets.

Wonderful. I've got my green check mark back. So any changes, remember, you make here in the first fit. You always want to do that. Okay, I want to show you something.

I got a difference between the ears. See how we got a difference between the ears. I'm going to go and show you the audiogram again. Yep. Difference between the ears.

What receiver would you choose for this guy? Okay, take a look here. I'm going to make the audiogram a little bit bigger for you. And the gray is the fitting range, obviously. This is your S receiver.

Okay. It's a 110, 46 matrix. It's 110 max output, 46 peak gain. Your M receiver, it's a 60 peak gain. Your P receiver, it's a 65 peak gain.

Your HP receiver, 75 peak gain. Okay. Way too strong. Not using it. All right, so let's go back.

M receiver, S receiver, those are the two that you're probably toying between. All right, you might want to do both with an S. You might want to do both with an M. You might want to do the right with an S, the left with an M. What would you choose?

What many people do is they do both M's and they're like, oh, that's fine. I'll just turn down the right. But let me tell you, you're going to get circuit noise because the hearing aids are so much more accurate. So much more complex nowadays than they've ever been, that you don't want to overfit because you're actually going to cause more problems than help. You always want to fit the receiver to the exact strength of what's needed.

Okay, so for this one, I would absolutely do an M for the left and an S for the right. Technically, you could do S for both of them. And that's what we have here in this fitting. But you can see I got no headroom. That's not really the best choice.

You really want to do an M, and lots of times now you're going to be risking feedback. All right, with first fit, you only have to do the first tab and the last tab. Skip everything in the middle. You don't need to do the in situ gram the hearing test through the hearing aid. And I will tell you absolutely skip the feedback test.

Don't do it. What you're doing is the 1990s way of feedback control. Okay? 90s were great. I love the music in the 90s.

Not so much for feedback control. For feedback back then it was a notch filter and you reduced the gain. Sure, you don't get feedback, but you can't hear either and you're not hitting targets. I hate putting a notch in there. Especially since this is your last resort.

Our Signia hearing aids, all our Signia hearing aids have an automatic feedback control built in that's automatic, adaptive. You don't need to set any parameters, you don't need to turn it on. And it works phenomenal. It's going to follow the feedback path of each microphone on each ear in each channel, and it's in each processor, in the speech processor and in the background noise processor. It's able to do this in a three part system.

And when it's doing a marking, every sound that's been processed prior, doing an output shift to make it stand out and phase cancellation, all instantaneous so you don't lose any gain. And it's doing all of that for every microphone, for every channel, for every processor. It's really good. You don't need this.

Okay?

This feedback test is your last resort. If you need this feedback test, it's because you have a bad fit. The left ear, that's a bad fit. Put an M receiver on that left ear and now you're not going to get feedback.

Okay?

Say they had a ton of hair in their ear or a lot of wax. Get it taken care of. Don't reduce the gain on the instrument.

If they choose and they insist on a CIC when they've got a corner audiogram, that's a bad fit.

Sometimes you're forced to do it, and then maybe you do need to run it. But honestly, you ruin the hearing aid, and it's kind of like putting an earplug on their elbow. It's doing nothing for them. So be cognizant.

That feedback test, you don't need it. You don't need to run it. Don't run the sweep in the ear. Don't use the statistical critical gain, which is the light pink and the light blue on your graph on top. Don't do it.

You've got a great feedback system. If you need this feedback test here in this first fit page, you did something wrong. Honestly, all you need is your acoustic parameters and your fitting formula. Under the fitting formula, we always fit to experienced, and we usually fit. If you don't indicate we fit to NAL NL2.

But we can also fit to IX Fit, which is your proprietary fit, which is Also based on NL2, that's going to be more optimized for that form factor. But whether you fit fit, the IX Fit or the NL2, you're going to hit targets, okay? Because they're all based on NL2 as your. As your foundation. We fit to experience.

That's 100% to target. If you changed it to new, that's 70% to target, a 30% cut. So just be aware of that, too. If you fit to new and you're trying to hit targets and verification and you're like, gosh, I have to make a lot of adjustments with Signia. Well, that's because you pick new, pick experience.

It's going to be to target. If you're fitting using IX fit. And I'm going to go ahead and change that. You'll see new again, 70% to target. Experienced target.

Power is going to be more linear, less compression. Okay, now remember, if you make changes, any changes here in that first fit page, we lose that green check mark. I'm going to go ahead and recalculate my fit. Remember, override is usually the way to go and get my green check mark back, all right? And that's all you got to do.

Just check your fit, all right? Just make sure that everything is all done appropriately when you. When you do your first fit, okay? Check your green check mark. Your next step of first fit, do OWN voice processing.

Ah, I love OWN voice processing. Own voice processing is just insignia hearing aids. And just if you have two hearing aids, okay? So you have to have a binaural fit, they've got to have true directionality

on them. Two microphones and they're in Ricks and BTEs.

So any Rick and BTE binaural fit that you have with Signia, you've got own voice processing. This is the ability to lower the gain just when the patient talks and not for anything else. Huge advantage. It's working just on your speech processor. It doesn't adapt gain for any audibility for any speech.

This gives you the ability to fit to target. Huge help for you. And the patient loves it because they're not overpowered by their voice. So very easy to train for own voice processing. Just go ahead and go to training and it tells you what you need to do.

Takes about 12 seconds. First, make sure your patient's away from any reflective surface. So you don't want them in front of the wall. You don't want the high backed chair. If that's the only place where you can put them.

Make them stand up. They have to be about three feet away from those reflective surfaces so you can visually look at them and see if they were doing helicopter arms, swinging their arms around them. If you. Then again, they don't physically have to do that, but if you can see that they wouldn't be hitting anything if they swung their arms around, then you're fine. Make sure it's quiet in the room and what I mean by quiet, no one else talking.

If your receptionist out front is really loud, close the door, okay? You just don't want any speech in the room when you're running this. You can have a fan going on, that's totally fine. And make sure that your patient's away from the computer because it could give off some electrical interference too as well. You want the NOA link wireless close to them, within three feet or closer.

So if your NOAA link wireless is in the drawer or fell behind the desk and is on the floor, get it up. You want your patient to talk loud because what this system is doing is actually taking a 3D scan of the

patient's head while they're training it and taking the exact distance measurement between their mouth and their ears. That way, own voice processing is not affected by the quality of their voice. They could have laryngitis. They can, you know, have a vocal change, they can whisper or yell and it's still going to work.

It's based on distance. Okay? And lastly, you want your patient to keep on talking. You want them while you're training the hearing aid for those 12 seconds to have continuous speech now, no one keeps on talking. Where we audiologists, the only one that have that special talent that could just talk and talk and talk and not say anything.

It's a gift, right? Well, tell your patient to count. Don't count from one because you paused between the numbers. When you count from low numbers, 1, 2, 3. It won't work that way.

They gotta count from bigger numbers. So the numbers run together. 21, 22, 23, 24. And if they're still pausing between the numbers, make them do the 100 thing. 21, 100, 22, 223, 320, 400, 20, 500.

However, just add them. Just make them keep on talking. All right, so tell your patient, Mr. Patient, I need you to keep talking in a nice loud voice. You're going to start counting at 21.

Count on up like this. 21, 22, nice and loud. You're going to hear your hearing aids cut on and off. That's okay. You're going to hear them beep.

That's okay. Just keep on talking. So we're going to go ahead and start it and say, okay, Mr. Patient, you can go ahead and start counting. And you're going to go ahead and click on start training.

21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35. And you'll see, you get your green check mark and all the training is done. It's really quick. If they're still count like 44 or 45, stop them, stop them and

re instruct them because something went wrong. Either they're not loud enough or they're not fast enough.

They're maybe pausing between the numbers. So just reinstruct them. So they're not still counting because this should be a very quick process. You'll see. Once we get our green check mark, we're good to go.

So the default is the medium setting. That's usually where I lead it. Leave it for the patient because first time wearer, they don't know what to compare to. They don't know what their hearing aids are supposed to sound like. So I leave it in medium.

That way if they need more changes, I'm not backed into a corner. If your patient is all of a sudden talking louder now that it's on because they wore hearing aids before and that's how they monitor their voice, by hearing how loud it was. And now we've lowered their voice, so now they're going to talk louder for that patient. Just put it on Minimum. Minimum is going to do about a 2,3 DB reduction of their voice.

Medium is going to do about a 5,6 DB reduction of their voice. And maximum is going to do an 8 or 9dB reduction of their voice. I don't like to start people on max. That backs you into a corner. The only people that I'll put on max to start are the people that I know have issues with their voice.

Maybe they return hearing is before. They haven't even left my office because they refuse to wear them or someone with really great lows where their low frequencies are like 5, 10, 15. I'll start them on max. And for those people and for everybody, I never use an open fit. I hate open fit.

Open fits, you lose too much audibility, you lose too much of your noise reduction. And that's been proven, proven by studies. I mean there's studies that were out by Gus Mueller, Todd Ricketts, Ruth

Bentler. And in the studies they. It's all hearing aids, not just ours.

It's every hearing aid in the world that when you fit with an open fit, you lose audibility, you lose all noise reduction below 1200 hertz. Where is noise reduction or where is noise usually located? Usually below 1200 hertz. So if you're fitting open, you're ruining your fitness fit. Clearly you always want to fit at least with the semi open.

So that's why I like to pick the tulip or I like to pick the vented as my starting point. So if you've got really good lows, I'm still using the tulip or the vented. Okay, but just put them on max. But for most people, precipitous high frequency or, you know, typical presbycusis, mild to moderate high frequency hearing loss, whatever it is. I always start them at medium first time fits and I say, okay, Mr.

Patient, just set it up for your voice and I move on. With my first fit, I don't even ask them how their voice sounds. And then at the end of the fitting, I'm much more vague. Okay, this is great. We're going to keep it here, yada yada.

If they pipe in at that time, oh, my voice, then I'll make a change because they've worn the hearing aids for about half hour or so, they've been talking and they're going to hear the difference. If you go from medium to max right at the start, they're not going to hear the difference. They're not going to know. And it, and you've taken away that extra, you know, tool you have in your tool belt to make their voice better without reducing audibility. So I like to start everyone at medium and then when they come back for their follow up, I then ask them how their voice is.

And if they still are unhappy with their voice, I will then put it on max and they can hear the big wow. All right, so that's how I usually do own voice processing. That's part of your first fit. So remember, first fit, you just check and make sure everything's all what you wanted. You've got your first, your last, you have your first fit, that's done, you run your own voice processing and now you're ready to verify.

Under verification, you're going to go to fine tuning. Quick, easy, simple. Okay. For fine tuning, usually we have difference between the ears, but usually both ears are about the same, so I like to keep them coupled together. I'll do one ear first, all of my verification and then I'll uncouple them and do the second.

Second ear. So I'll do all of them first. I usually start with frequency shaping because this is my overall gain with its frequency specific. And I'll do this to my average curve. So this is my 65db curve I'll do, but it's really doing all three curves at the same time.

So I like to do my frequency shaping here, but on my verification machine I'll do it for my 65dB curve then. And I could do that. I could click and drag and make adjustments. Double arrow is 3 DB steps, single arrow is 1 DB step. Okay.

I like to do it with these steps here on the bottom and make adjustments. So if I just wanted to do one area, I could do that again and. Or you can do the whole handle, or you can do a whole grouping. I don't like to click and drag because look, I clicked and drag and oh my gosh, that's drastic. I didn't mean to go up that much.

I mean, sometimes you do and that's fine, but usually you want to do more subtle changes. So if you did that by accident, don't worry. Up on top here is an undo button, the little back arrow. You can click that undo button over and over again. You can go all the way back to first fit.

So just know there's always a little safety net in there. You can always hit undo. Okay, so I do this for my average curve and then I go to gain. And under the gain handle is where you can find your soft curve, your average curve and your loud curve. You Want really fine tune adjustments adjusted to 20 handles.

Remember, in your instruments you've got 48 channels. So 20 we didn't. We don't give you 48 because you'd kill us if we gave you 48. But 20 is more than enough. So we gave you 20.

But you can certainly group things together by clicking and dragging and again make adjustments. 3 DB adjustments or 1 DB adjustment up or down. Okay, so I would then do, after I did my 65db curve under my frequency shaping, I would then go to gain and do my soft curve. I would then do my loud curve and then I would go and do my MPOs. Now, this is really simple too, on how to read it.

Up on top. Here is your matrix for your receiver. So it's always going to list your matrix. So 110, 46, 110 is your max output, 46 is your peak gain. Okay.

What you have down here correlates to that 110, that big number. So if this handle is a 0, it means the output's 110. Whereas this handle is a negative 6. The output is a 104. So it's 6 from the 110.

Just as 12 from 110. This output would be a 98. So that's what those negative numbers are. They're in exact db. It's telling you exactly what the difference is from the matrix.

So you can make your adjustments and your MPOs there. All right. Those are the only handles you should be using when you're doing your verification. Knee points and ratios, don't touch it. We give them to you so you can see, but don't touch them.

The reason being we use curved linear compression. We use two knee points, two compression ratios. Everybody else uses them, is a wide dynamic range. Curve linear compression mimics what the natural healthy cochlea does, which is like more linear in the lows, applies more compression in the mids, more linear in the highs. That's the way our normal healthy cochlea works.

So with curved linear compression, we can mimic that. We can also make individual adjustments to each curve. With wdrc, you make an adjustment to soft and you might knock out the average. With curve linear, you can make an individual adjustment to soft and still keep the average as. So that's a huge advantage too as well.

But with curve linear compression, your rules get thrown out the window that you think you know or you do know, but it's. I say think you know, because with curve linear, it's different. With WDRC. I like my knee points at 50, 55. I like my ratios 2.0 and lower.

And that's my go to with WDRC. But this is curve linear and the rules don't apply there because now you've got two ratios, two knee points. So you can't go by those rules. Don't make adjustments here. It'll make the hearing aids sound horrible.

If you want to make adjustments to your knee points and ratios, make them in gain. And it's going to make the adjustments to the knee points and ratios on the back end. Remember, when you're making these adjustments in gain, it's truly in DB what you're seeing. These numbers are DB values. They are not just, just, you know, arbitrary numbers.

They're, they're true DB values. So make your adjustments and gain. It's going to do the knee points and the ratios on the back end. Just don't touch the knee points and ratios. It'll keep your hearing aids working and sounding pristine if you follow the algorithms that was devised by the researchers that are people much smarter than I am.

So keep those as is. All right. And that's all you need to do for your first fit. Quick, easy, simple. Let me show you what you're going to do for follow up fittings.

Okay, follow up fittings. Dynamic soundscape processing. Oh, I love this page. This is what makes your hearing aids so awesome. Your universal program, all automatic.

You know how I talked about that real time conversation enhancement when we first started with that multi stream architecture? It's picking out the speech and able to follow and track. All of that is controlled here on this page in this top part, which is all of your noise reduction, your directionality, all of those algorithms are all represented in these three little photos. And they all work together because what your hearing aid really is doing, it's kind of like being an omni and directional both at the same time. Not one ears, one and one ear is the other.

It's able to adapt and give you the immersive environment, the best sounds. All of this controls it. So what you're controlling is the black line smack dab in the middle. And the balance is your starting point. That's the equal amount of directional and omnidirectional, the equal amount of speech support.

So if you look with the set at balance, your default, in a quiet scenario, you have about equal balanced speech support. That's the red line in a noisier cafe. It's going to adapt and be even more speech support in a really loud party or a meeting or a loud restaurant, you'll have even more speech support. And this is what happens when you're set at balance. That's your default.

You're not going to touch it at first bit. It's a great place to start. It's where you're going to keep almost everybody. If your patient comes back and says, oh, I'm struggling in noise, I can't hear, I'm really having a hard time. This is where you're going to go.

This top part is where you're going to make that noise reduction adjustments. This, the speech enhancement adjustments. All of these algorithms are all in this top cartoon. It's not adjusting gain, it's adjusting the algorithms. So at balance, equal amount of directional and omni, one step up towards highlight going to give you even more noise reduction, even more directionality.

A little bit less omni, a little bit more focus, and you'll see that. You'll see a little bit more speech support and it gets even more so in the more challenging situations, you want to do one step at a time. You never want to go from your starting point balance, like all we have to highlight. Whoa, too drastic. Don't do it.

Do one step at a time. Okay, so if they come in complaining a noise, only one step up, okay, awareness is going to give you more around you more omni in quiet, but it's still going to give you speech support in noise. So each step you go towards awareness, which you might want to do if this person says, you know, I want to be at home and hear the clock ticking on the wall, you know, that soft little tick, or, you know, I'm at dinner and I'm kind of struggling to hear my son next to me, but I can't hear my partner across from me, or I can hear my partner cross for me just fine. But my son next to me might be a little difficult. So you might want to give him a little bit more awareness in this quiet situation, because maybe dinner time at their home is pretty quiet.

Whatever the case, that's what this is doing by making it a little bit more awareness. Or you might be matching. Maybe you took them out of another technology that had a more open platform. So you might want to give them more awareness to start, give them more noise around however you want to set it. But it's still going to use.

Those algorithms are still going to kick in. So don't be afraid that you made it omni, you know, too omni. And now you're not going to get the noise reduction benefits that you need because you'll still see it with those red bars. You still, it still adapts, but pretty much start everybody at balance. The only people I don't start at balance and I will start at a different setting from the very start from first fit as if they've very poor discrimin.

So if they have like 50, 60% discrimination, I start everybody at one step up towards highlight. But if they are pretty typical discrimination, 80, 80% or better, you know, pretty typical presbycusis hearing loss. I started everybody at balance. Okay, so this top part is what you're going to adjust for your noise reduction, your directionality and it's also going to adjust the intensity of those multi stream architecture. All of that with a real time conversation enhancement is all done on this page, which is fabulous.

One simple step, easy done. There's two controls on this page. This top part is your noise reduction. The bottom part is your frequency shaping for your universal program. A lot of people look at this bottom part and say, oh, it's grayed out.

I don't touch it. Which is normally the case. Oh, it's not on, it's grayed out. But the reason why it's grayed out is because the default is quiet. And at your quiet setting, your hearing aids are what you programmed to target when you did your verification.

It's all based on speech and quiet. So quiet is your starting point. That's why it's grayed out. That's why quiet's all zero values here. Because that's your starting point.

And when you're adjusting gain your frequency shaping, you want to see your graph. That's what the little I in the graphs are on the top over here where I'm pointing on the right hand side, I guess the middle of your page on the right hand side, it's got the little eye in graphs. Click on that. And now the eye opens up and I can see my graphs because when I adjust for frequency shaping, I want to see what I'm doing. The cartoon's cute nob, but I want to see what I'm doing.

So quiet. Everything's grayed out because that's your starting point. And if you want to adjust for speech and quiet, you're going to do that back in fine tune tuning. All right, noisy is your offset in your universal program to what your hearing aid will adapt to when it goes into a noisy environment. So this is the frequency shaping.

This is the default. And for noisy, how you read it is all again based on speech and quiet and it's in true DB. So 0,000 means the same as speech and quiet plus 1 plus 1 plus 1 plus 1 means it's 1 DB louder than speech and quiet. And your frequencies are on the bottom. So how I would read this is that it's the same as speech and quiet up until 1500 Hertz and above 1500 Hertz it's 1dB louder.

That's your default. So if this is my guy that was really struggling in noise and came back and said, you know, I'm not hearing speech at the meeting at the restaurant. I hear you just fine in the in the office. But I'm really struggling in these noisy situations. I would want to go and give him a little bit more speech support with the algorithms.

Give one step up towards highlight and then open up my graphs, go to this noisy setting and where it's 000, this is your noise area that's below speech. Because if you look your frequencies, it's up to 625Hz. So rather than have it the same as speech and quiet where there's noise, I'm going to turn it down 3 decibels. So I'm going to click on each one of these handles three clicks to make it a three decibels softer than speech and quiet. And then the next three handles zero plus one plus one, that's my speech area.

That goes from 625Hz to 4500. So in my speech area, I might give them a boost up maybe 2dB for speech. So I'm just going to Click on up 2 clicks for each one of those handles. So now what I did, if you look at your graph and continue to look at your graph, I'm going to switch in quiet. I'm at target in noise.

Automatically the lows go down and the mids pop up. So that's what your hearing aid would do automatically in the universal program so you don't have to give them a noise program. Okay, now remember, wrong receiver on that left ear. I would absolutely use an M. Look, I'm like stuck.

I can't really make the improvements I want to make. I'm probably going to be feeding back. And you know what? My hearing aids are not feeding back right now, which is amazing because I've got a great feedback system, but I'm not going to get the clarity I need. Use the right receiver.

Okay, so in these examples as we go forward, don't look at the left ear. That's ugly. Look at the Right ear. It fits better because the right ear is the appropriate receiver on. All right, so that's the adjustments I would make with dynamic soundscape processing.

This makes your universal program all automatic. You don't need to give them a noise program and it's got an offset for car. It knows automatically when you're in the car. So if they're saying, hey, I'm struggling, I can't hear speech in the car, I'm going to turn up the speech area. I might even turn down the noise a little bit more and turn up.

And this just does it for the car. So if they said when they listen to music, you know, they maybe they really like tinniness and they want to hear the horns. They really want to hear it whale. You might want to turn up the high frequencies. It's not going to turn up the highs for everything, just when they're in music.

So this is how you adjust your universal program. Make it all automatic. Okay. That's your dynamic soundscape processing. Normally you're not going in this at first fast.

This is what you're going to go to for follow up to make that universal program all automatic. Make it perfect for them because ideally you don't want to give them a lot of programs, make it easy for them. One program does it all. That's what the Signia was designed for. Okay, what else can I show you?

Oh, basic tuning. Basic tuning is kind of like fine tuning in that it's frequency shaping. But what you're doing here is broadband. You're doing adjustment in broadband sweeps rather than frequency specific.

So it's a great place if you want to do a quick and easy broadband adjustment.

Every Click is about 3 decibels. Okay, so master gain, that's going to be your overall gain. All three curves, the whole frequency shape. One click, it's going to bring the whole thing up 3 dB. Okay, loud curve, that's your loud sounds.

So it's just doing the loud curve, but not frequency specific. Average curve is a medium sounds. Soft curve is your soft sounds. I love this tab. So let's say that patient who came in and he said, I am struggling in noisy situations, I can't hear speech.

Your first question should be when and if he says, well, it's that when I'm at the restaurant, when I'm at the meeting, but actually in quiet here too, I'm struggling to hear you. So, you know, you need to make adjustments to speech overall, not just in the offset for noise, but also for speech and quiet. So you can do that right here for basic tuning. And that's the speech control. I love this one because one click it's going to adjust from 750 to 3k and bring that just the speech area up 3db.

So maybe one click and done, that's all you need to do. And be more conservative here. Two clicks, that's about a 6db adjustment. That might be too huge. So again, be more conservative with your clicks because remember, each Click is about 3 decibels.

What I like as well is sound quality. It works like a seesaw sharper. The highs go up, the lows go down and it changes. The fulcrum is usually about 1500 hertz. Okay, so this might be a huge help help for that patient.

Softer. The lows go up, the highs go down. So if your patient comes in and says everything is just too tinny, you might want to click softer. One click, the highs just go down a little bit and it just makes it a little bit more manageable for the patient. One and done.

So basic tuning is a great place to go and make quick and easy adjustments. Broadband fine tuning where we did our verification adjustments, this is where you're going to make make your nitty gritty. So it has frequency shaping that's the same as the master gain that you had in basic tuning. But now it's frequency specific. If you want to do it, the whole broadband together make it one handle.

Now I'm doing the whole thing all together. So this would be the same as basic tuning except basic tuning every click is about 3db. On fine tuning, I could do do 3db steps or I could do 1db steps. So remember, fine tuning gives you more nitty gritty. Fine tuning lets you do frequency specific or in smaller increments.

Okay, so we did our sound and loudness page. Already told you about that. Don't touch your knee points and ratios. Trust me, trust me. It sounds better if you don't touch them.

Make your adjustments and gain frequency compression is there as well. So if you need to use frequency compression, this is a great option. Just turn it on. If it's on, you know it's on. No matter what screen you're in, you're going to see it on your graph.

So you don't just have to be in fine tuning under frequency compression to know it's on. Frequency compression is taking the black area, rolling it off and pushing it into the pink or the blue area. You can widen or make smaller the width of the pink and the blue. That's your top adjustment. You can change your roll off.

That's your bottom adjustment. And it doesn't usually default on. It'll default on if you've got, you know, precipitous high frequency hearing loss with 20dB or greater between the thresholds and 70dB or greater above 4K. But it usually doesn't default on. But it's there if you need it.

So you can always turn it on. And it's on every hearing aid we make, even down to a cic. Okay, so that's your frequency compression sound setting settings. This is where you control all of your noise reduction algorithms. But you're going to notice this one right here in the smack dab in the middle is all grayed out.

We do that on purpose because these are the controls that are being controlled by the dynamic soundscape processing, the page that has all the cartoons. So in order for this page to be optimized and this page to work the best way possible, you want to keep under fine tuning and sound settings. This locked and it's the default. It automatically is locked. You certainly can unlock it, you certainly can make changes.

But don't, don't do it because that's going to then not make your dynamic soundscape processing be optimized and work the way it's supposed to. What you can adjust is your E wind screen. And it works. We have, we have enhanced this. It works so well.

Let me tell you. I wear my hearing aids in my car, which is a convertible driving in New Jersey on the parkway where we don't go below 80 and I don't have wind noise. That bothers me. You can hear a little bit of wind noise at that, but it's not, it's no different than my normal ear. It is sounds phenomenal.

And other people don't hear the wind noise. When I'm out in that environments too as well, like when I'm talking to them on the phone. It's just, it's, it's great. The E wind screen is phenomenal. Sound smoothing takes down your transient sounds.

The default is the minimum setting which is a 20dB reduction. You can put it on the medium which is a 30 decibels reduction. So that would be newspapers rustling or silverware clanging or hammering or whatever those transient sounds are. You can even put it on max, which is a 40dB reduction. So if this was my guy who was complaining about noise, the default is minimum.

I might come here and give them, make it medium, give them a little bit more reduction for those transient noises. Too, as well. This is your automatic feedback control. It's automatically on. If it's vented with a semi open, you're going to default to max.

If it's closed, it's going to default to minimum. Keep that feedback cancellation on. That's automatic. It's adaptive. You don't need to set any parameters.

That's the 2024 way of doing feedback cancel, not the 1990s. All right. And you got your auto echo shield here built in automatically into your universal program to take down that low reverberation that kind of just lingers in the room that makes it sound horrific when the patient goes into an echoey area. And if you say, well, my patient doesn't go into an echoey area, let me ask you, does your patient have a bathroom in their house? Does your patient have a kitchen in their house?

Oh, they do. Oh, guess what? They echo in there. So this is a great way that automatically is built into their universal program that's going to take down that reverberation and make sound sound more natural to them. Because hearing aids actually amplify soft sounds.

That's what they're made to do. So hearing aids actually make. Make the echo worse normally that you in rooms that you might not even hear an echo. But that's the way hearing aids work. So with auto echo shield, you don't have to worry about that.

It's always going to sound natural and comfortable built in. Keep it on measurement settings. That's if you were testing in a test box. It shuts off your adaptive parameters and turns them back on again. Fitting assistant.

That's if you need help. Help. So if you weren't sure what to adjust and the problem sound quality, it's harsh for soft sounds. It tells you what you can do. You can apply it right or left or binaurally.

You can just listen to what it does and do it manually. I like this page. Also, if my patient doesn't have the words to tell you what's wrong, because sometimes they're not the best reporters. So if your patient comes in and says it's not good, you're like, what's not good? I don't know.

It's not good. I would go to this and I would go start with the category. Okay, what's not good? Your voice, Speech, sound quality, Environmental sounds, feedback. Oh, environmental sounds.

Okay, so what's not good about the environmental sounds? Is it wind noise, Background speech? And I would go through each one of them to give the patient the verbiage so that way it's a huge help for them in communicating because they may not know how to verbalize what they don't like. Okay. And also give you a hint on what to adjust.

Auto streaming. The audio streaming phenomenal. You stream and you can make adjustments for audio that would be from your phone. Music, you know, audio books, podcasts, tv. From the TV streamer you can adjust just for the TV or hands free.

You can adjust for the microphone for the hands free because they're talking back and, and the response there. And you can make it as many, as many as 12 handles. What I do like to point out, always, always, always, always turn on the adaptive streaming. I like to do this at time of first fit. The adaptive streaming volume means that your streaming is always going to be louder than the noise floor.

So if your patient goes into the plane and they're trying to watch Netflix or they're in the restaurants or it's Star, they're trying to talk on the phone, whatever it is, because they're always in a noisy situation when they want to be streaming. They might say that the phone doesn't get loud enough and the

hearing aids don't get loud enough because the noise is overpowering their streaming volume. With adaptive streaming volume, the streaming is always going to be louder than noise floor increases based on the noise floor. So that's a huge help. I always like to put that on.

We have tinnitus options in our hearing aids as well. So this is a phenomenal thing to know. I'm not going to go over it in this, in this seminar. We have specific seminars just on tinnitus. But just so you know, we've got sound therapy which is using the theory of habituation.

It's adding either steady state noise, like white noise, pink noise, speech noise, high tone noise, or modulated noise, which is ocean waves. And it's white noise. And it goes in and out just like those pictures. So they, it's like calming and they hear waves. So we have different types of habituation therapy where the noise is constantly on and you could pick how you want the noise.

You can get the volume of the noise. So that way it's comfortable for them however you want to set it up. What we also have is notch therapy and this is exclusive just to Signia too as well. With notch therapy, we have the ability to not add extra noise. The patient doesn't hear anything different.

Different. It's using lateral inhibition. You have to be able to pitch match. Once you pitch match, you apply the notch where their tinnitus is located. So let's say their tinnitus is located and we go by a sixth of an octave.

So very small area. So say the Tinnitus is located 53, 33 Hz. You would do a check of that and then you would activate the notch. Once the notch is on, the brain doesn't hear anything different. The brain doesn't know.

Well, let me reiterate. The brain knows that the notch is there, knows it's different, but it's very smart. And it covers up. So the patient doesn't know that the notch is there. The patient doesn't hear anything

different.

The music sounds the same, audibility is the same. They don't know that anything's missing. But the brain very, very smart, knows it's missing. It's been covering it up. And it learns not to hear at that one half octave.

So over time, when the patient takes their hearing aids off at night, the tinnitus doesn't come back because the brain learned not to hear at that pitch. So you have to be able to pitch match. They have to have a hearing loss. You activate the notch. The patient wears their hearing aids like eight hours a day.

They don't, you know, they have to wear it at least eight hours a day in different environments in order to, you know, their brain learn not to perceive that sound. And over time, it learns not to hear it. It's pretty, pretty darn amazing. Okay, and if you're using notch therapy too, as well, you know it's on. So I'll go into our first fit again.

See, you don't even have to go into the tinnitus page to know it's on. You would know it's on every time because no matter, anytime it shows a graph half it's going to show that it's on. Okay, so I'll just take that off right there. Personalization. This is your logging page, your insights.

It'll show you how long they wore it. Did they use different programs? Did they make changes? Did they use Signe Assistant? And it will show you what the changes they made to Signe Assistant.

Signe assistance, a huge help. This is our AI. It's our live deep neural network that actually learns as the more the patient uses it, it learns better preferences of what the patient likes. So RAI constantly is getting smarter and smarter. It's a little scary because it really is wonderful for the patient.

It gives them the ability of having you in their pocket when they're at the restaurant, when they're at the wedding, they can make adjustments and the best part you can see exactly what those adjustments are that they made and you can choose for them to keep it or not. So I love sickness. You could see that there. We also have an acclimatization mask manager. So if you started your patient on target 100% on experience and maybe it was too much for them, you might want to then set them to new and slowly over time get to target so that climatization manager can do that as well.

Under configuration, this is where you have your volume control, your how you could have your rocker switch set up. What I love and what I want to point out to you is we also have call control for hands free. And with government software you have the ability of shutting this off. So with your software that you have with the government, you can uncheck the hands free support and make the hearing aids skiff compliant. So you don't have to order anything separate, you don't have to send it back.

If they have a SCIF assignment that they need to have it compliance, you can take off that hands free and then let's say the assignment ends, you could put it back on if they want it for a different assignment. So you can adjust that. That's all right here under configuration. System sounds are your beeps. You could play the beeps for them.

Click on the little arrow and it'll play the beeps. Your beeps could be melodic, which is different notes, or you can have basic beep, beep, beep, beep, beep, which sometimes is easier for them to hear. So if your patient's having a hard time telling the beeps, change it to basic. Oh, little hint for you. I'll give you a hint, something I learned the hard way.

When I would choose for the frequency of the beeps, I would always put it the lowest frequency where they had the best hearing. Because I said, oh, that's where they're going to hear the beeps. Guess what? That's where the hearing aid doesn't work. If you put the beeps where they have no hearing loss, the hearing aids not amplifying there.

So you want to put the beeps where they have more of a hearing loss loss. I know, I never thought that until someone pointed it out. So you want to put the beeps where they have a loss because that's where the hearing aid works. Okay, little hint for you, remote controls. You really don't need this page unless you're fitting the mini pocket and you forgot how to pair.

Your instructions are right there. Lovely. Great. Little hint. Lastly, program handling this is where you can add your account programs.

Okay. So you don't need to, but you certainly could put in a high def music program, which we have for recorded music, live music, or musician setting. You can put in a phone program and make it twin phone. This can be your amp cross program. Because twinphone, you hold the phone up to one ear and the phone then is in both ears.

It's using acoustic phone. You can make this an amp cross and max out your microphone on your sound settings page. And now you've got an amp cross and you can adjust it that way. So a little hint for you there too, as well. Some other cool things we have in the software.

Did you know we have this disconnect button down here on the bottom? This is how you should always disconnect. Disconnect down here. Click on disconnect. Now you see, we're in simulation.

My hearing aids are disconnected. My patient has to go to the bathroom in the middle of the fitting. I disconnect with that disconnect button. Keep this screen open. They come back 15 minutes later with a cup of coffee.

Coffee. Because you know, they had to take a tour of the facility and they come back in. I just have to hit connect. I don't need to shut my hearing aids on and off again. I don't need to put them in the

charger.

I don't need to take them off their head because I kept it open. I just hit connect. It will automatically then connect my hearing aids again without me shutting them on or off. Huge help. So I always shut them on and off.

Off with that disconnect button. Okay. Another cool thing I want to show you up on top, the service tab. Do you know that 90% of the time we're going to keep your programming, but there are times the hearing aid was destroyed, the dog ate it, it was replaced. Whatever.

The reason is that we cannot keep your programming in the hearing aid you get. The left one was sent out. We can't keep the programming. You get the left one back. The patient still has the right one though.

No, just open up their last time you saw them. You're still in simulation. Come up to service and then program the left hearing aid. It's going to use that session that's open and program the left one as if the right one was still there and keep all of your pairing. So that's a huge help too as well.

Okay, Another thing I want to show you documentation. Did you know you can print this out for your patient? And it shows them. It shows them the Tap control that they have to answer the and end the phone call. It shows them what different programs they have.

It's got their name on there. It's very nice. So you can print this out for your patient, which is a huge help. All right? And that is pretty much everything I wanted to show you.

So remember, with the first fit, quick, easy, we first fit for you. But even if you had to do it yourself, you just do your first and your last and you apply your first fit. You just change this button from recalculate to

first fit. First fit wipes everything out, starts over from scratch. It'll wipe out your programs, wipe out everything.

So if you saw that patient 18 times and you're so far from target you don't know where you are and you want to start over, you might want to do that. But recalculate fit will keep everything and just, just change the game. Okay? So remember, first fit, first, last, apply first fit. Do your own voice processing.

12 seconds, quick, easy, done. Do your verification. Boom, done. And that's under your sound and loudness. Remember, you want to do it overall gain for your average curve, go into gain.

Do your soft, your loud, do your mpos and then unsync them and then do the left ear or do the right ear, if you started with the left, whatever it is, to unsync and do the other ear. And that's going to give you a huge head start with verification. And you're all done. But you're going to see with Signia hearing aids, it's not a lot you gotta do for verification, which is pretty darn cool. So just to go Back to our PowerPoint, let's go ahead.

Oop. Let's go back to our PowerPoint. Where is that? Here it is. I just want to end up and show you what we have on our portfolio for you.

You've got your IX hearing aids with your Pure charge and GO Tix telecoil built inside. You've got your Styletto IX and both of those have cross options. You've got your NCO charge and go AX and also your NCO IIC CIC IX. You've got your rechargeable BTEs with your motion charging goes and they all have telecoils, but you also have your Intuos 4, which is new and that's built off of the AX platform with split processing. And that also has a battery if you need a battery driven bte.

So you've got a lot of options. They're all programmed with the connect software, just as I showed you. And just to wrap up, I thank you. I thank you for joining us today and for taking the time to learn more

about the Signia Connect software. If you're interested in learning more about our products and software, I absolutely encourage you to take our courses on audiology online.

We've got quite a few dedicated just for government service. We also have some quick tips on specific little, little topics too that can help that are 10, 15 minutes long. And also you can reach out to us. We're always here for you on the dedicated government service line here at Signia. That's 800-955-4327.

Thanks again and have a fabulous day.