Philips HearLink 9050

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Welcome to our course introducing you to our newest product offering, the Philips HearLink 9050. The HearLink 9050 offers many advancements in technology, connectivity and several new hardware components. Therefore, we are going to carefully touch upon each of these today throughout this presentation so that you do leave with an understanding of what the HearLink 9050 does for your members and what you need to know to fit the product. In addition to this course, you will have access to multiple job aids and two additional courses that cover the software and connectivity in detail. Let's go ahead and dive into learning about Philips HearLink 9050.

It is my goal that by the end of this course you will be able to discuss the benefits of the Philips HearLink 9050 and sound map three technology featuring Soundguide. You'll be able to outline the key features of the mini fit detect receiver system and how these features improve acoustics when fitting members with Philips HearLink devices, and you'll be able to identify the member benefits of the Philips HearLink 9050 charging system I am very excited to introduce HearLink 9050, the latest artificial intelligence powered or AI powered person centered hearing technology from Philips hearing solutions. Philips continually introduces advancements to its sound map sound processing to help put the member at the center of their hearing journey and to help them create more connections.

The new HearLink 9050 does offer an array of new features and functionalities. These include the new soundmap three with sound guide for exceptional access to clean, clear speech an update to sound three, which now includes Bluetooth Le audio for lower energy consumption while streaming and hands free calls with select Android devices and select Windows eleven PCs. A new, unique and stylish design offered in four monochromatic colors. A brighter pulsing led to indicate battery and charging status, as well as any enabled visual indicators. A single push button for easier and more intuitive handling new minirite detect smart receivers, which are detectable in HearLink and feature an error mode new call tap control which allows members to answer phone calls or hang up by double tapping on the hearing aid and finally, new faster contact charging, thanks to the new hearing aid design and

the new charger plus minirite.

This allows members to charge a full days power in just 1 hour and up to 4 hours of use in only 15 minutes.

Let's first dive into the details for the next generation of AI sound technology and sound map three.

Since the introduction of Philips hearing solutions, hear link hearing aids have been built on AI sound technology. Building on this success, Philips is introducing sound map three with Soundguide. Introducing an improved AI noise reduction and finally expanded low frequency bandwidth. All of this to provide your member even better access to clean, clear speech. Let's look at how the advanced features and technologies within Philips Hear link 9050 device work together to deliver your members our best speech and noise performance and optimized hearing based on their movement within their given environment.

Since the launch of Soundmap in 2019, major introductions have included extending the number of frequency bands from 16 to 24. Since more frequency bands do allow speed harmonics, more isolation and separation from noise, it's included AI noise reduction, which coordinates noise reduction across frequency bands to efficiently clean speech signals. In noise, we introduce sound protect, which reduces wind noise, handling noise, and transient noise in the presence of speech more effectively, and we have our patented sound map feedback canceller. As noted, the evolution of Soundmap continues with the introduction of HearLink 9050 and Soundmap three. The primary goal of the evolution of soundmap technology in Philips HearLink is to increase connections by improving access to speech in noisy environments.

To do this, Soundmap three is designed to deliver the best continuous speech and noise performance, and the introduction of Soundguide incorporates movement, enabling the advanced features to work

together and prioritize the amount of help needed as your member goes about their day.

So how exactly do these features work together? Soundguide instructs dynamic directionality and AI noise reduction to offer help for speech and noise that is suitable for the listening situation and for the behavior of the member wearing the hear length 9050 device when the member is sitting still and conversing in a difficult environment, Soundguide will provide more help to detect speech from the front. Conversely, when the member moves their head or body during a conversation or walks across a noisy room, Soundguide will adapt to the body movement to provide more help to detect speech from surrounding directions. The automated systems also continue receiving input from items such as speech clarifier, which does help speech stand out in noise, and input from sound protect, which removes irritating sounds. The collaboration of all Soundmap three technologies working together optimizes speech and noise performance to let members hear better whether they are sitting still or on the move, and whether they are engaged in conversation in a crowded place or walking and talking on a busy street.

Essentially, Soundguide enables HearLink 9050 to prioritize the amount of help needed for speech and noise as your member naturally moves throughout their day.

So we talked a bit about what Soundguide is doing. However, now let's quickly look at exactly how Soundguide determines the optimal speech in noise help needed based on the behavior of your member. The Philips HearLink 9050 uses an embedded accelerometer that detects movement by measuring changes in velocity over time, and it also measures whether the speed of the movement is brief or constant. This information from the members behaviors and environment is then fed into the automated directionality and AI noise reduction systems. Using these multiple inputs, HearLink 9050 generates an optimized output based on member activity to account for where they are and how they move in order to deliver more appropriate help for hearing speech and noise.

To put it simply, Soundguide tailors sounds based on motion behavior, therefore putting the member at the center of their hearing journey. Hear length 9050 with sound guide not only understands the environment around the member based on sound input, but it also understands what kind of activity they are engaged in, therefore allowing the device to optimize both directionality and noise reduction exactly how and when your member needs them in their own daily activities.

Along with the introduction of Soundguide, HearLink 9050 also introduces an update to the AI noise reduction system as the AI training process has been enhanced with higher resolution. In HearLink 9050, AI noise reduction considers and adapts to the Soundguide activity, ensuring the member receives the proper amount of help for their listening behaviors, therefore considering not only the environment of the member, but now also their listening behavior. AI noise reduction is unique in that it coordinates its response with acoustic input from dynamic directionality and now with access to motion input from soundguide, AI noise reduction can better manage noise across all 24 frequency bands. This improvement allows AI noise reduction to attenuate more noise without introducing distortion, particularly in the low and mid frequencies, and it is now available as a new very high setting, which reduces noise up to twelve decibels in very noisy listening environments. This improvement is key for those who struggle in complex environments with excessive amounts of background noise.

Now paired with the input from Soundguide, the HearLink 9050 will know if your member is focusing on a conversation in a crowded room versus walking or scanning. When focusing, the HearLink 9050 will intuitively adapt features such as directionality and AI noise reduction to settings that optimize the signal to noise ratio and provide the greatest benefit for your member.

HearLink 9050 also brings improvements that allow for the lower bandwidth to be extended down to 80 hz, where previously it was 200 hz, thereby offering an expanded bandwidth ranging from 80 to 10,000 hz. This change applies to all programs using the microphone input and for all fitting rationales. This

expanded low frequency bandwidth will allow for more access to low frequency content, especially for members with closed acoustics and severe low frequency hearing loss. For members, this feature is intended to increase sound quality by improving the fullness and richness of sound, most notably when listening to live or recorded music, and it does so without additional adjustments and fine tuning.

Another improvement being introduced with Philips HearLink 9050 is the optimization of the low frequency enhancement control. This improvement means that your members will receive a higher level of gain between 125 and 625 hz when streaming to enhance the overall sound quality of streamed music and audio. Members fit with open domes typically don't have amplification in the low frequencies from their hearing aids. They receive low frequency sounds directly through the vent. When they are listening to streamed sounds, those naturally occurring low frequency sounds will be missing, and this is where the low frequency enhancement can be helpful to compensate for lost gain.

The more open the fitting, the more gain will be applied to the low frequencies. The low frequency enhancement optimization also means that we are now adding more gain than what was previously available. For detailed information on how to adjust these settings, please refer to the Philips Hirosuite 2024.2 presentation now that we have discussed the many technological advancements, let's look at the HearLink 9050 product, including the hearing aids, the new minirite detect receiver system, and the new mini write Charger plus 9050 is an attractive and stylish device that provides your members with a comfortable fit that is discreet when on the ear. Now, for those familiar with previous HearLink devices, you may be wondering where the r and the t are in the mini write name because the HearLink 9050 is of course, both rechargeable and it has a built in telecoil. However, note that there is only one device style available, which is the HearLink 9050 mini write, so let's go ahead and look at the product in a bit more detail.

We have already discussed at length cellmap three and the advancements in technology that the HearLink 9050 device offers your members. Now I would like to focus on some more practical features and how those will benefit not only your member, but also you as the HCP when fitting your member with the new HearLink 9050. Before we dive into the details, let's just review a few key points. Philips HearLink 9050 offers a new, unique and stylish design and four monochromatic colors, a brighter pulsing LeD indicating battery and charging status, as well as any other enabled visual indicators. It does have a single push button for easier and more intuitive handling, and also a built in telecoil.

It features the new mini fit two text smart speakers which are detectable in hear suite and feature an error mode new faster contact charging, which allows members to charge a full day's power in just 1 hour of charging time and an update to sound three, which now includes Bluetooth La audio for lower energy consumption while streaming and hands free calls with select Android devices and select Windows eleven PCs. Now note that we won't be discussing soundtie three in this presentation. For detailed information on soundtie three and how the Philips HearLink 9050 provides support for Bluetooth Le audio, please see the soundtie three creating connections that matter presentation as mentioned, the Philips HearLink 9050 is available in four monochromatic colors, which will blend naturally with the members hair or skin or if preferred, stand out like other modern wearable technology. The shell colors available are beige, gray, brown and black, and the beige and gray colors will be available through your depot replenishment system.

The new mini fit to text system is an innovative smart receiver system featuring a new eight pin connector with embedded memory. This memory identifies serial number fitting level, length, and side, all of which can be detected by HearLink, ensuring that the correct receiver is attached. Unlike previous receiver systems, the new minirite detect receivers need to be physically mounted to the hearing aids for them to be detected connected. If the receivers are not attached, it will not be possible to proceed with the fitting. The new receiver also includes an error mode, which is a safety function to prevent

fitting errors.

This will work to prevent the wrong fitting level or side being mounted by mistake. If the receivers mounted on the hearing aids are different than what is expected or what was previously saved, the hearing aid led will blink orange for a total of 16 times and the HCP will get a mismatched notification within HearLink. Now, for more details on error mode, please refer to the Hirosuite presentation. The mini fit detect receiver system also features a specifically designed curvature that results in improved fit and retention. This new design does result in the new minirite detect receiver wire fitting closer to the side of the members ear so it is less noticeable, it is more comfortable, and the device itself sits better on the ear for a nearly invisible fit.

The minirite detect receivers offer fitting levels of 60, 85, 100, and 105 and are available in the following wire lengths 60 and 85 is available in 01234 and 5100 is available in 1234 and five, and the 60, 85, 100, and 105 with microshell detect is available in sizes 1234 and five.

Now here we can see the fitting ranges for the heal length 9050 with the expanded bandwidth up to 10,000 hz. These graphs should be relatively familiar. However, as a quick review, the point at which the dark area on the fitting graph ends denotes the upper limit of the graph. This upper limit does ensure audibility for soft sounds or around 50 decibels up to that amount of hearing loss, but not beyond the point where the lightly shaded area of the graph's end denotes the lower limit, ensuring audibility for medium sounds around 65 or conversational speech. Complete details regarding full on gain and peak gain are available via the technical data sheets on the Philips Costco portal.

Now, a variety of earpiece options are available for the minirite detect receivers, ensuring the best possible solution for every member. Earpiece options do range from the currently available minirite domes made of silicone to the custom made light tip micro mold and micro shell detect that are made of acrylic. While most of these options are familiar to you, let's quickly review these acoustic options and

how they fit to the Philips HearLink 9050.

Here is a more detailed review of the non custom dome options available for the HearLink 9050. As you may notice, these are the familiar minirite domes that are also compatible with previous HearLink devices. Mini fit domes provide an ultimately discreet solution and fit comfortably in the ear canal. They are clear and they come in three different open base dome, base dome, double vent, and power dome. Note that the five millimeter open bass dome is only available for the 60 receiver and they are all instant fit solutions.

The open base dome is ideal for slight to mild hearing losses based dome double vent for a more moderate to severe loss or where more low frequency amplification is needed and the power dome is suitable for more severe hearing losses. Again, they are made of soft silicone and compatible with both minirite and minirite detect receivers. They also do have built in wax protection in addition to the pro wax minirite filter found in the receiver itself.

Now that we have reviewed the non custom dome options in detail, let's do the same for the custom mold options that are available for your members. Fit with the Philips HHearLink 9050 the first option listed is the light tip, and this mold is made of a hard acrylic material and it is hollowed out and fits snug in the ear canal. Since the light tip is hollow, similar to domes, it does tend to feel less full and is recommended for mild to moderate hearing losses. The mold also tends to be shorter in length. Therefore, if a long canal is desired, it is necessary to order a canal mold.

The micro mold fits deep into the ear canal for best cosmetic appeal. Note that the micro mold is also short in length like the light tip, whereas its counterpart, the canal mold, is very similar but has a longer length. These molds are solid throughout with a hollowed out bore allowing for in clinic receiver changes. The micro mold and canal styles are available in both acrylic and silicone material and ideal for mild to severe hearing loss. Another style mold is the full shell.

This mold offers a fuller fit for those members with mild to profound hearing loss and may be a better option if the member desires or needs a larger mold for dexterity reasons. With the full shell mold, it is only available in silicone material and the receiver is held in place via tension, allowing it to be changed within the hearing center.

In addition to the previous mentioned custom molds, the micro shell detect is a new mold being introduced with the Philips HearLink 9050. Although it may bear some similarities to the previous micro shell mold, I do want to spend some time going over the details of the microshell detect and how this mold benefits your members. With Microshell detect, the receiver is fully embedded in the mold. Micro shell detect is manufactured with a 6085 100 or 105 mini fit detect receiver fixed within the mold and is acoustically equal to the other mini write custom molds with manually inserted mini fit to text speakers. It is made of acrylic material and designed to fit comfortably yet snug within the ear canal.

Again, micro shell detect is only available for HearLink 9050 hearing aids and can only be selected or detected in HearLink for this specific model. Now, an advantage of microshell is that since the receiver is fixed into the mold, it cannot move, spin or lose orientation. This means that members may find it easier to insert in their ear and may find that it keeps its position in the ear better. For this reason, it may be worth considering for users with dexterity problems. Also note that in both the light tip and the micro mold, there is space around the receiver inside the mold, and this space is a space where dirt and earwax can find its way into.

This is not the case for micro shell detect, which gives an advantage to the micro shell style when it comes to cleaning and avoiding earwax and other debris from finding its way into the mold and into the receiver.

Micro shell detect does come in a variety of colors in order to match the skin color of the individual user, so this solution is cosmetically optimal. Available colors are beige, light brown, medium brown, dark brown, black, and transparent micro shell detect is also available in transparent blue and transparent red custom shell colors for all fitting levels. This option could be advantageous for a member that would like to have a clear indication of right, which is the red and blue which is the left.

The ordering and selection of molds can often become confusing. Therefore, we have spent time revamping our order form to improve the flow and make it easier to choose the style and available options best suited for your member and their hearing loss. You can access a copy of this form via the link in the bottom right hand corner of the slide, and if you do have any questions, please feel free to reach out to your support team.

An issue fitting your member using domes or a custom mold is that should they need a new receiver, you can easily detach the mold and change the receiver in clinic for micro shell detect. Since the receiver is fixed, it cannot be replaced in the clinic and you'll need to order a new mold. This means that getting the receiver wire length correct from the beginning is important and it should be measured carefully using the measurement tool. The new minirite detect does come with a new measuring tool to assist in selecting optimal length for each of your members. This new tool can be used with the minirite receiver if needing to measure length for previous hear length generations such as the 9040 or 90 now, the main difference is that the new tool does include size zero, which the old existing tool does not, and it is also labeled mini fit detect.

This means that the new tool encompasses all receiver lengths. Note that the to new tool is just for mini write styles and therefore it is necessary to use a separate measuring tool for thin tube styles.

For the correct length, place the tool over the member's ear. Note the number lining up with the middle of the ear canal opening and that is the length required for the mini fit detect. In this example, the

correct receiver length for this member would be a size three. This size would result in the best physical and cosmetic fit for your member.

With the introduction of HearLink 9050, we are also introducing a new charger known as the charger plus minirite. This new system does use contact charging and the new charger plus mini write has been designed with reliability, usability and clinical efficiency in mind. Before we dive into the details of the charger plus minirite, I would like to take a look a bit further into contact charging. Since this is new for Philips products, contact charging means faster charging, a smaller charging device, and a more reliable charging experience for your member.

With rechargeable batteries, battery capacity does drop with time. This means that the member in some cases may start hearing the low battery warning at the end of the day earlier as their hearing aids age. To combat this, a constant capacity charging technique has been implemented which maximizes battery life. This technique reserves part of the battery's initial capacity to ensure it can provide more stable performance throughout the lifetime of the hearing aid. The benefit of this is that members can expect to have more consistent battery performance from day to day across the lifetime of their hearing aid, and this helps to offset some of the unavoidable battery degradation that will occur with time.

Prior to the introduction of contact charging. Extensive battery testing with different usage patterns was performed to ensure that this was the best choice for you and your members. The product test included millions of hours accumulated test time with more than 600 batteries. The technology was also tested across the full operating temperature range and for the equivalent to five years of daily use. The testing showed stable and reliable results that were then implemented into the HearLink 9050 devices and the Charger plus mini right the new charger plus minirite gives your members a full day of power in just 1 hour of charging and a quick recharge in just 15 minutes.

The contact points on the hearing aid scrape against the springs in the charging point on the charger and this means that any dirt or skin debris does get removed from the contact points before charging. This provides your member with a consistent and reliable charging experience.

In addition to the previously mentioned features, the new Philips Charger plus mini write provides your members with numerous additional benefits. It does offer portable and convenient charging. It offers more than a full day of battery life. The hearing aids do stay powered and protected within the case. It is designed to fit a variety of earpiece options including non custom dome and mold options.

It does have colored markings to ensure easy and intuitive placement of hearing aids. Blue for left and red for right does have a gray insert to provide contrast, making it easy for the member to see how and where the devices need to be inserted. Magnets inside the charging ports do ensure that the hearing aids are fully inserted and they provide tactile feedback about correct placement, and then the magnetic force within the lid provides a premium lid feeling and good tactile and audible feedback confirming that the lid is closed.

The charger plus mini write does function very similar to our previous charger plus. However, I do want to quickly review how to charge the 9050 devices when the charger plus minirite is plugged in. Both the hearing aids and the chargers built in battery are being charged to charge the HearLink 9050 devices, place them in the charging ports and close the lid. The Philips charger plus minirite lid should be closed during charging since it does serve as protection and storage during charging. When the lid is opened, the LEDs on the hearing aids light up to indicate charging status.

This is indicated via solid orange lights when the hearing aids are charging and solid green lights when charging is complete. Please note the hear length. 9050 devices will remain on but muted when placed in the charger plus mini right for about 2 hours. When the hearing aids are taken out of the charger, they will be on and the member is ready to go. I would also like to mention that if the member is actively

streaming and the hearing aids are placed in the charger, streaming will end and the hearing aids become unavailable as a streaming source.

However, they do continue to show as connected unless they are taking out of Bluetooth range. Additionally, if connected to the Philips hearing two app a notification will be seen to indicate that the hearing aids are charging and also it will indicate once charging is complete, when the charger is connected to a power source. The LEDs on the charger indicate the charging status of the power bank. The LEDs turn off shortly after the power bank is fully charged. A pulsing orange light indicates that the power bank is charging and that the battery is too low to recharge the hearing aids.

Steady orange lights indicate that the power bank is charging and three green lights indicate that the power bank is fully charged.

When the charger is disconnected from power, the LEDs on the charger indicate the chargers power bank battery level the remaining battery level can be checked by opening the charger's lid. Now, unlike the previous charger plus, the number of green lights no longer refers to the number of charging cycles. The charger plus minirite holds approximately three full charges for the HearLink 9050. However, this may vary based on charging conditions.

The Philips Charger plus minirite contains a lithium ion rechargeable battery that again does double as a power bank when the charger is plugged in. Both the hearing aids and the charger's built in battery are charged. When the charger is unplugged from a power source, the charger enters power bank mode, which allows for the hearing aids to charge when there is no access to power. If charging the power bank battery alone, the charging time is up to 4 hours depending on charge level. If fully drained hearing aids are placed into the charging ports.

The charger plus mini write power bank will take up to 6 hours to charge depending on charge level. Also shown here are the charging times for the HearLink 9050 hearing aids themselves when placed in the charging unit. Note that charging times for the mini write may vary depending on the capacity of the battery, but if a hearing aid is completely drained, the normal charging times are 120 minutes or 2 hours for a full charge, which is up to 20 hours with heavy streaming, 1 hour or 60 minutes provides 16 hours, 30 minutes, 8 hours and a quick 15 minutes charge provides 4 hours of use.

There has been a lot of information discussed throughout today's presentation, so let's go ahead and summarize the key points and highlights. As we close today. We have introduced you to Philips HearLink 9050 featuring Oracast three with Soundguide. Soundguide incorporates motion data into the hearing aid, offering an even more person centered approach. Along with the introduction of Soundguide, HearLink 9050 also introduces an update to the AI noise reduction system, as the AI training process has been enhanced with higher resolution and adapts to Soundguide activity to ensure that the member receives the proper amount of help for their listening behaviors.

Philips Hear link 9050 features expanded low frequency bandwidth, allowing for more access to low frequency content, increasing overall sound quality, most notably when listening to music. The new minirite detects smart receivers which are detectable in hear suite and feature an error mode. These speakers are designed to increase fitting accuracy and ease and to create a more comfortable fit for your members through a new design and mold offerings. New faster contact charging thanks to the new hearing aid design and the new Charger plus mini write, allowing your member to charge a full days of power in just 1 hour or up to 4 hours in only 15 minutes. And then finally, we are introducing the next generation of Soundguide three by offering Bluetooth Le Audio, the highly anticipated new standard for Bluetooth connectivity, which will allow hearing aid users to connect to more devices, including the Oracast broadcast audio, once it becomes available.

For more information on Bluetooth Elliott Audio and the advances being introduced in soundtie three, I do encourage you to visit the soundtie three creating connections that matter course I want to thank you so much for attending our course today Philips hear link 9050 and if you do have further questions, please feel free to reach out to via the contact information listed.