

Phonak

Step-by-step guide

Creating a mask program in Phonak hearing aids

Masks are now common in day to day activities, and a necessity in clinical settings, as part of infection control and prevention. However, use of masks has an impact on audiological care and communication in the clinic. Research has shown that face masks act as low-pass filters, reducing high frequencies (2kHz to 7kHz).^{1,2} The attenuation of high frequencies ranges from 3-12 dB, and varies by mask type. This leads to a direct impact on speech clarity and shows that there is reasonable concern about speech understanding for those with hearing loss during the COVID-19 pandemic where facial masks are necessary.

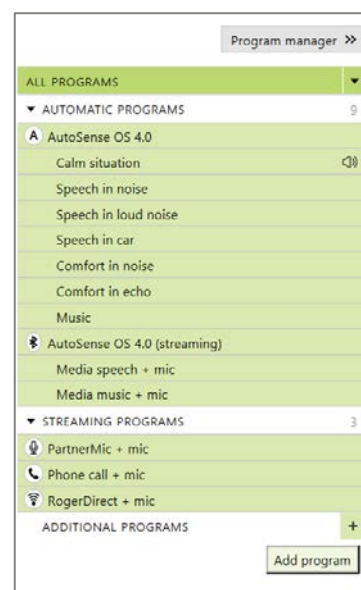
A study conducted by the Phonak Audiology Research Center (PARC), determined how the loss of high frequencies translate to real ear output for a hearing aid.² The investigation of these fine tuning adjustments created a basis for general guidelines for hearing care professionals interested in creating a mask program for their clients.

Manual mask program in Phonak Target

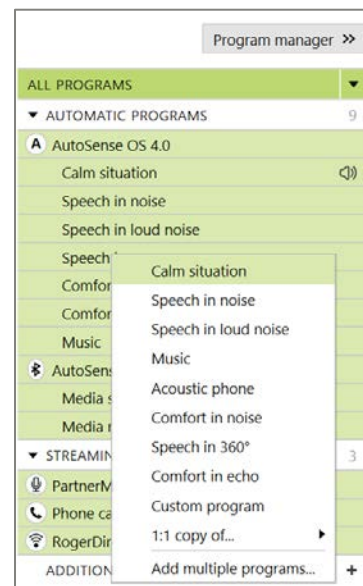
The following steps below provide instruction on creating a manual mask program during an in-clinic appointment or via a Remote Support session using Phonak Target.

Step 1: In [Fitting] > [Fine tuning] tab of your client's fitting session, go to [Program manager].

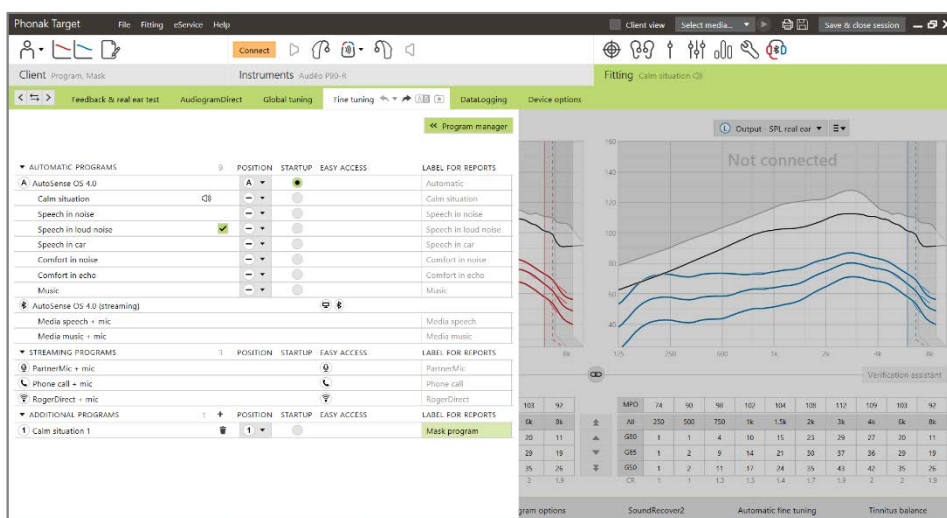
Step 2: Click on [+] next to [Additional programs] to add a manual program.



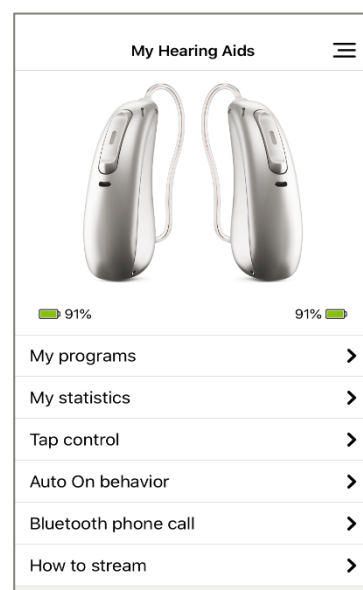
Step 3: In the menu, select [Calm situation].



Step 4: Click on the newly created manual program. The program will be highlighted green. Open [Program manager]. You can relabel the program with a new name for easier identification in the client report. For example, "Mask program".

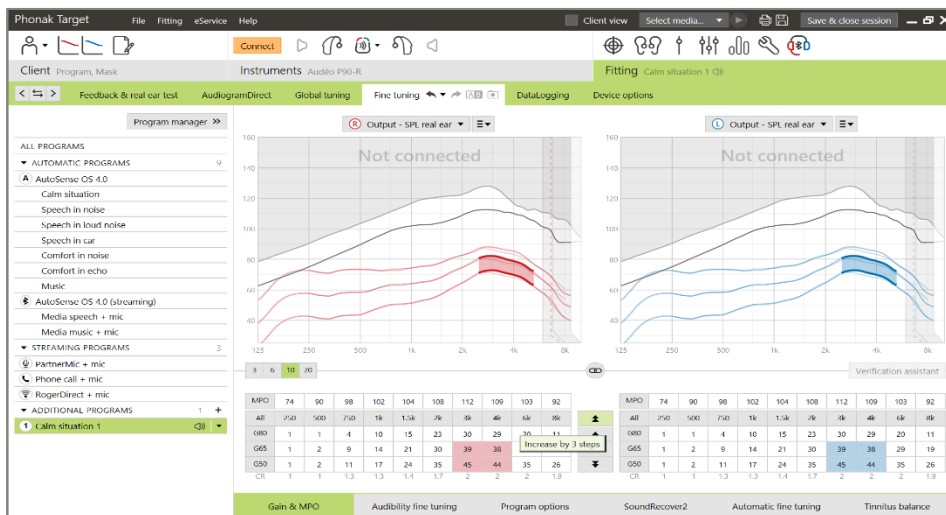


- In the myPhonak app, this manual "Mask program" may be displayed as Calm situation, but clients can customize the name of the program in [My Hearing Aids] > [My programs] section within the app.

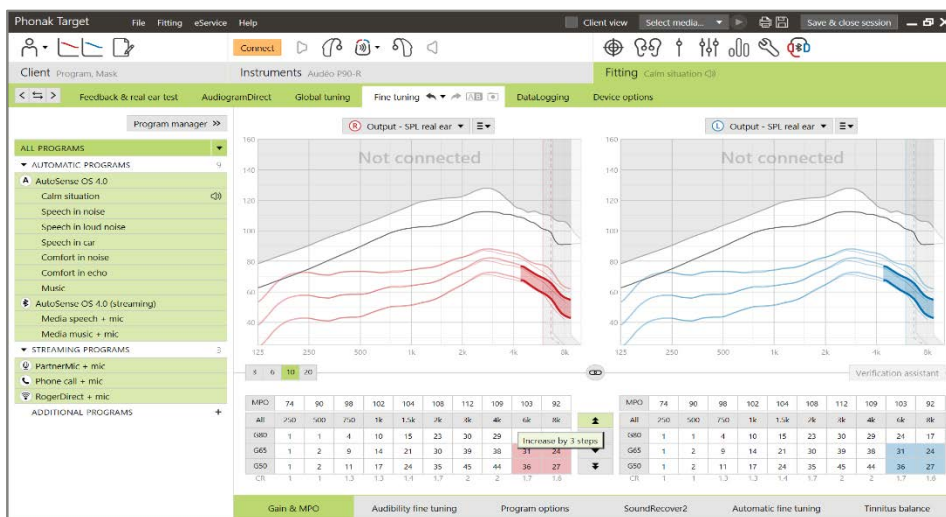


Step 5: In [Gain & MPO], ensure the number of frequency channels visible is 10 or 20.

Step 6: Highlight 3-4 kHz for G50 and G65. Increase gain 3 steps by clicking on the double arrow once.



Step 7: Highlight all frequencies above 4 kHz for G50 and G65. Increase gain 6 steps by clicking on the double arrow twice.



- Clients with small ear canals may not require an increase of gain at 3-4 kHz. Instead, increase gain 3 steps at all frequencies above 4 kHz for G50 and G65.
- Increasing the gain for G50 and G65 may raise compression ratios (CRs). If a lower CR is needed for a given client, G80 can be increased by 1-2 steps.

Note: For pediatric clients, manual programs may not be suitable for them to toggle through. It is recommended to use Roger technology to provide pediatric clients access to critical speech sounds throughout their day.

Custom mask program in the myPhonak app

Clients using Phonak Bluetooth enabled hearing aids, with the exception of Phonak Sky™, have the flexibility to create custom scenarios using the myPhonak app in order to help improve their listening experience in real-time. Clients can quickly make adjustments to emphasize clarity, bass or treble, dynamic sounds, and microphone directionality.

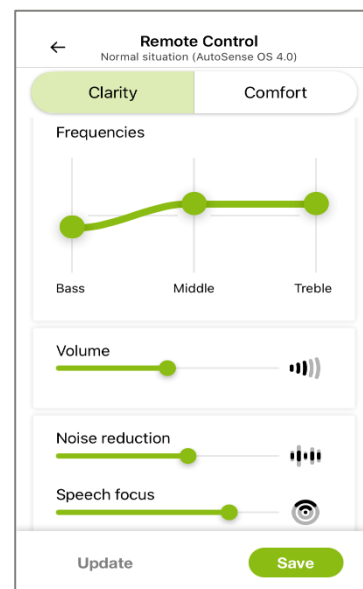
Step 1: Ensure clients' Phonak Bluetooth enabled hearing aids are paired to the myPhonak app.

Step 2: Tap the settings icon to access advanced remote control functionalities.

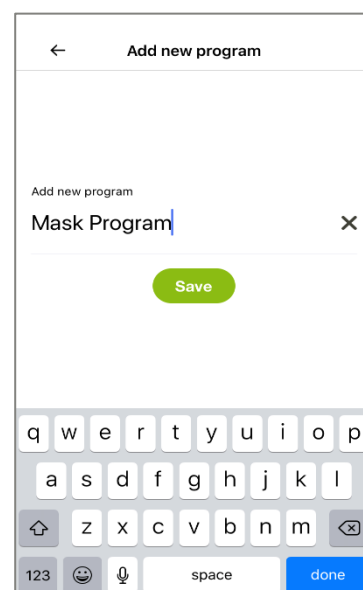
Step 3: To quickly make adjustments, select [Clarity] instead of [Comfort].

Step 4: If further adjustments are needed depending on the listening environment, consider the following:

- slight increase to the middle and treble weighting in Frequencies.
- when conversing in noisy situations, increase the microphone directionality using Speech Focus.
- when in quiet situations, slight increase to soft sounds using the Dynamic slider.
 - Please note that depending on the mobile's screen size, the client may need to scroll to see all functions.

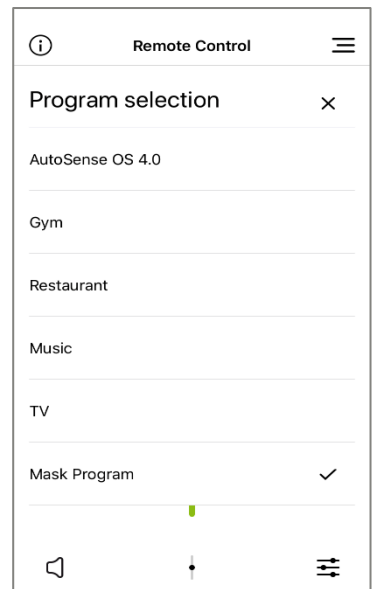


Step 5: Select [Save] to save adjustments as a custom scenario. Clients can customize the name of the program for easier identification in their program list



Step 6: Activate the mask program(s) within the myPhonak app as needed.

- Edit the customized setting and keep the changes by pressing [Update] anytime



¹Goldin, A., Weinstein, B.E., Et Shiman, N. (2020). How do medical masks degrade speech perception? *Hearing Review*, 27(5), 8–9. Retrieved from <https://www.hearingreview.com/hearing-loss/health-wellness/how-do-medical-masks-degrade-speech-reception> on May 11th, 2020.

²Taylor, D. Et Seitz-Paquette, K. (2020). The masking dilemma: Helping patients communicate during COVID-19. Phonak Field Study News. Retrieved from www.phonakpro.com/evidence , accessed September 3rd, 2020.

³Appleton, J., Et Voss S.C., (2020) Motion-based beamformer steering leads to better speech understanding and overall listening experience. Phonak Field Study News in preparation. Expected end of 2020