## Modular hearing protection with communication

Serenity SPC by Phonak is a custom-made modular hearing protection system, featuring an integrated headset for communication via cordless/mobile phone, radio and intercom. This modular solution allows different interchangeable acoustic filters and/or headsets to be inserted into a user's ear shells, for example to change the attenuation level or to use another Serenity device. Serenity SPC is lightweight, ergonomic and highly comfortable to wear.

Serenity SPC

Main features :
- Custom-molded nylon ear shells (eShells)
  - Outstanding comfort
  - Skin friendly (no sweating, no irritation)
  - Feather light
  - Highly robust
  - Cost-effective to replace
- EarJack adapters (compatible with all eShells) contain the system's acoustic filters and headset
- Several noise attenuation filters available
- Protection level verifiable with SafetyMeter fit testing
- Compatible with helmets, masks, glasses and other headgear
- Communication headset integrated in the earJack (can be mounted on left or right eShell)
  - Uninterrupted hearing protection during calls
  - Excellent speech comprehension in noisy environments
  - Clear speech transmission - even in noise
  - Foam microphone sleeve, reduces wind noise and protects against dirt and water
- Two noise-cancelling boom microphones available:
  - Standard boom (short arm). Suits active users.
  - Close-talk boom (long arm). Must be placed in front of the mouth. Suits very high-noise environments.

eShell

earJack adapter

boom microphone

PHONAK
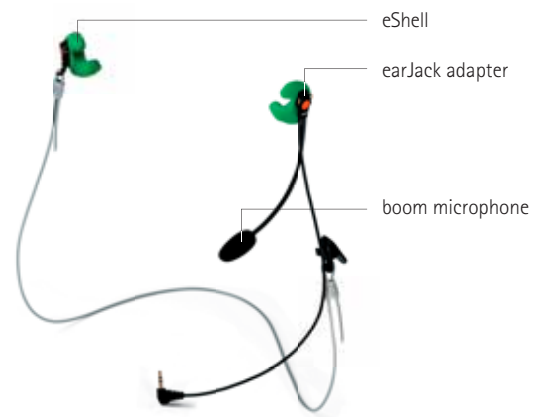
Serenity SPC

General Features

Weight Serenity SPC: 22g

Marking Unique user ID on each eShell

Accessories Silicone cord with safety breaks
Attachment clip
Metal detection (optional)
Carrying case
Adapters for cordless or mobile phones
PTT adapters for radios

Standard boom microphone (short-arm)   Close-talk boom microphone (long-arm)

Hearing Protection Specifications

Serenity SPC complies with the EU directive 89/686/EEC and is tested and certified according to EN 352-2:2002.

Mean Attenuation (dB)

Filter — 110WH   — 1050R   — 100YE   Frequency (Hz)
(white)   (orange)   (yellow)
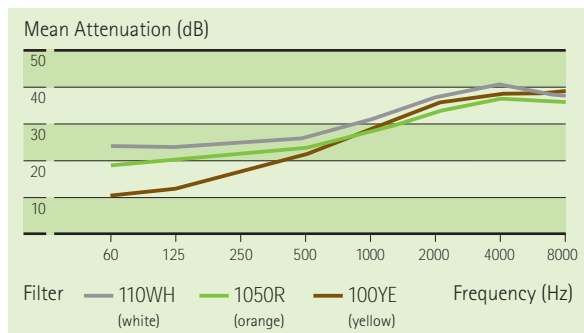
Attenuation values (dB)

Filter	SNR	L	M	H
110WH	28	20	24	31
105OR	24	17	20	26
100YE	25	16	22	30

Key : SNR Single Number Rating attenuation value
L   Low-frequency attenuation value
M   Medium-frequency attenuation value
H   High-frequency attenuation value

Technical Specifications

Standard boom microphone (short arm)	
Microphone sensitivity	-44 (±4) dB re. 1V/Pa at 1 kHz
Microphone supply	2.0V - 6.0V
	(1.3V - 4.0V with EarJack headset LIM Boom phone 2.5/3.5mm)
Microphone type	Electret, noise canceling

Close-talk boom microphone (long arm)	
Microphone sensitivity	-38 (+/- 4) dB re. 1V/Pa at 1kHz near field (6mm)
Microphone supply	1.3V - 10V
Microphone type	Electret, noise canceling, close talk

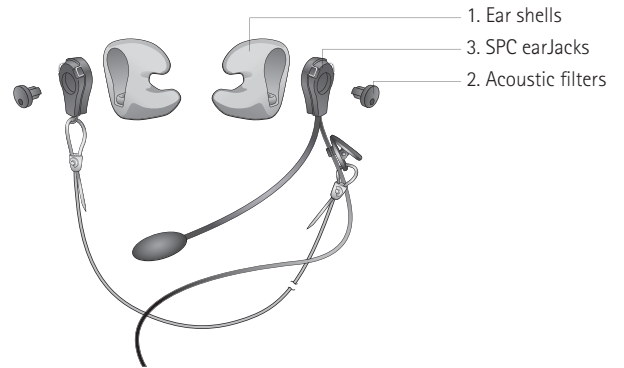| **Common specifications**	
Ear speaker sensitivity	94 dBA @ 150 mVRMS
Ear speaker impedance	50 Ω DC, 100 Ω @ 1 kHz
Maximum volume at ear speaker	100 dB(SPL)
Cable pull force	50 N
Operational temperature range	-20°C - +60°C
Electromagnetic compatibility (EMC)	EN 55022, EN 55024
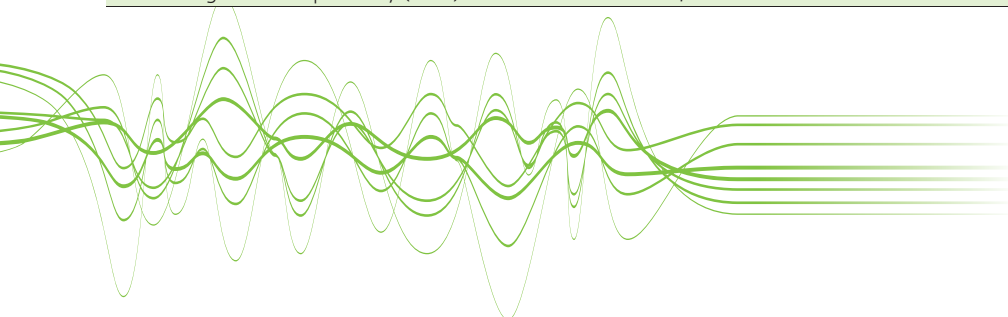
Serenity SPC configurable

Serenity SPC configurable includes 3 main parts each available in several versions:

1. Ear shells
2. Acoustic filters
3. SPC earJacks

A list of available variants for each part is shown below. Please specify the exact configuration required when ordering.

1. Ear shells
3. SPC earJacks
2. Acoustic filters

1. Ear shells

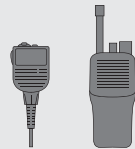| Configurable items	Description	Application
Custom ear shells (eShells)	▪ Individually molded ▪ Green, beige or blue color ▪ Left and right	▪ Highly comfortable fit ▪ Perfect to wear for long hours
No ear shells	Use the configuration «no ear shells» to order SPC earjacks as spare parts!	

2. Acoustic filters
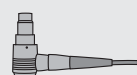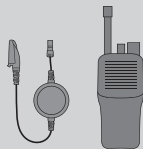
Configurable items	Description	Application
White filter	Acoustic filter (110WH)	Provides a noise attenuation rated as SNR=28dB
Anthracite filter	Acoustic filter (110WH)	Provides a noise attenuation rated as SNR=28dB
Orange filter	Acoustic filter (105OR)	Provides a noise attenuation rated as SNR=24dB
Yellow filter	Acoustic filter (100YE)	Provides a noise attenuation rated as SNR=25dB
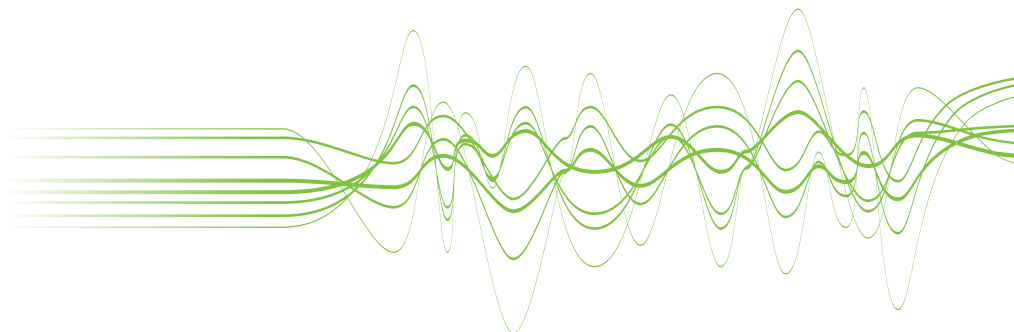
3. SPC earJacks

All SPC earJacks include an 'earJack adapter SP', an 'earJack headset' and a silicone cord with safety breaks. Filters separate.

Configurable items	Description	Application	Connectivity
SPC earJacks, incl. headset LIM boom Binder 620	▪ Standard boom ▪ Cable 120cm ▪ Binder 620 connector	▪ **Communicate in noise levels up to 90–95 dBSPL** ▪ Connect to different types of radios through a standard 2"PTT ▪ *See separate lists of 2"PTTs and radio compatibility*	
SPC earJacks, incl. headset LIM boom 35M1	▪ Standard boom ▪ Cable 120cm ▪ Jack 3.5mm/4 poles	▪ **Communicate in noise levels up to 90–95 dBSPL** ▪ Connect to different models of radios and remote speaker microphones	
SPC earJacks, incl. headset LIM boom 2.5mm	▪ Standard boom ▪ Cable 120cm ▪ Jack 2.5mm/3 poles	▪ **Communicate in noise levels up to 90–95 dBSPL** ▪ Connect to different models of radios and remote speaker microphones	
SPC earJacks, incl. headset LIM boom Condor	▪ Standard boom ▪ Cable 120cm ▪ Fischer connector	▪ **Communicate in noise levels up to 90–95 dBSPL** ▪ Connect to all Condor transceivers	
SPC earJacks, incl. headset LIM boom MicMute Condor	▪ Standard boom ▪ MicMute switch ▪ Cable 120cm ▪ Fischer connector	▪ **Communicate in noise levels up to 90–95 dBSPL** ▪ Select between microphone always active or muted (press-to-talk) ▪ Connect to all Condor transceivers	
SPC earJacks, incl. headset LIM CloseTalk Binder 620	▪ Close-talk boom ▪ Cable 120cm ▪ Binder 620 connector	▪ **Communicate in extremely noisy environments (up to 100–105 dBSPL)** ▪ Connect to different types of radios through a standard 2"PTT ▪ *See separate lists of 2"PTTs and radio compatibility*	
SPC earJacks, incl. headset LIM boom phone 3.5mm	▪ Standard boom ▪ Cable 120cm ▪ Jack 3.5mm/4 poles	▪ **Communicate in noise levels up to 90–95 dBSPL** ▪ Connect to several models of smart phones	
SPC earJacks, incl. headset LIM boom phone 2.5mm	▪ Standard boom ▪ Cable 120cm ▪ Jack 2.5mm/3 poles	▪ **Communicate in noise levels up to 90–95 dBSPL** ▪ Connect to different wireless phones or mobile phones, either directly or through adapters ▪ *Separate list of adapters and phone compatibility on demand.*	