









Communication in difficult environments

In an emergency, every second count. First responders have to make quick decisions using the information at hand. Noise, stress, physical strain with obstructive, sometimes breath shortening equipment makes communication difficult. When the incident escalates the significance of shared information and communication grows exponentially. Communicating with numerous parties via voice commands requires one-to-one conversations with little opportunity to clarify confusing instructions. Under extreme conditions clear and reliable understanding is paramount. Headsets are of the critical "last mile" of any communications system. They're simply too important to remain the weakest link for public safety teams. Police, fire and rescue, ambulance service deserve the best.

The headset must have the following vital characteristics:

- fail-proof
- loudness and clarity without clipping or distorting
- noise cancellation capability. The microphone must be able to reject sounds coming from anywhere but its intended source.
 This is critical not only for clarity but also for the security of information being transmitted.

Any professional knows that next to superior audio quality, wearing comfort is extremely important. Especially when wearing a helmet, a face mask or even protective clothing, boom microphones pose a risk to your mission. Under the helmet they can slip, but surely they are uncomfortable after a short while – as much as pure bone conduction headsets. If a built-in communication system is used, communication is down once the helmet is down.







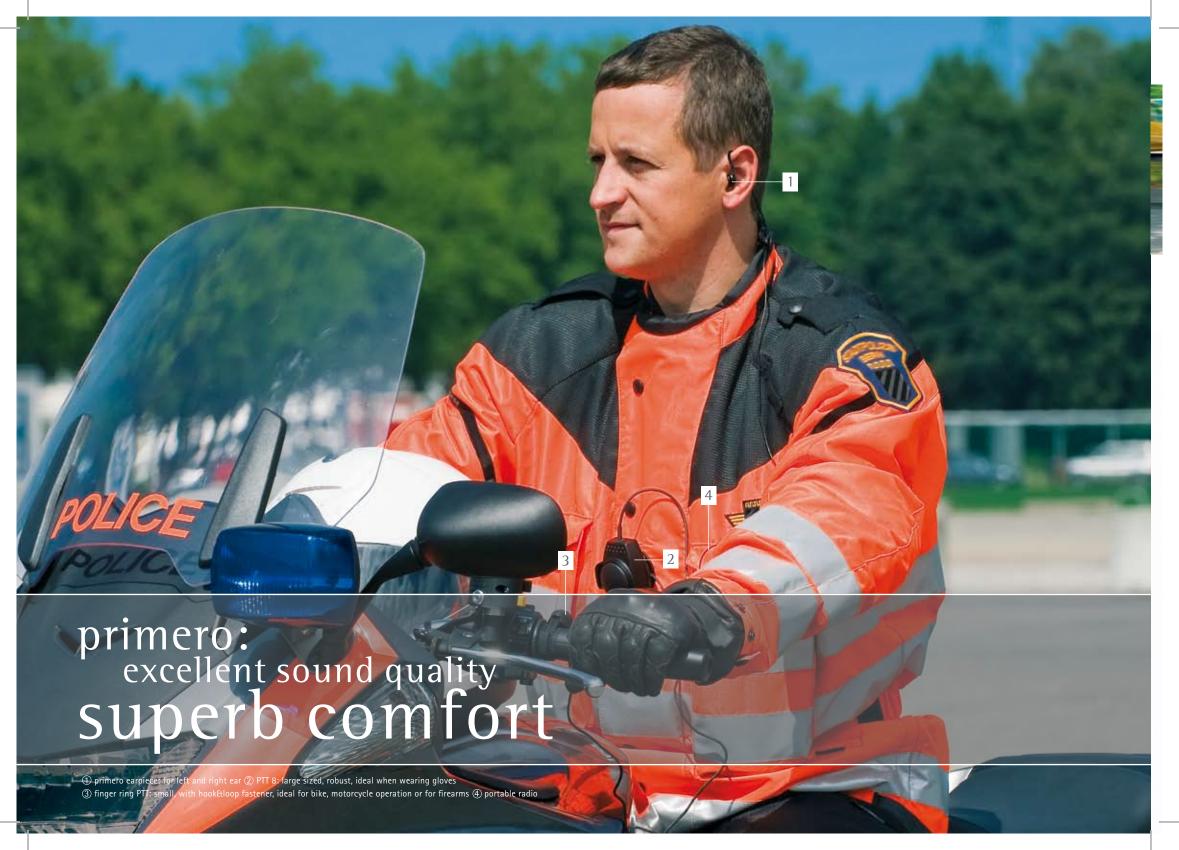


The solution: primero

primero is a complete communication solution for public safety teams to transmit and receive information. The entire system is merged in one single earpiece. primero delivers superior audio quality and is very reliable and robust to handle the demands of everyday, all-day usage. It provides optimal intelligibility by employing technologies such as VIP (Voice Intra-aural Pick-up) and BSS (Blind Source Separation) which apply active noise-canceling algorithms to ambient noise and elimination of echoes. primero sets new standards. No matter if the operation requires a helmet, gaz mask or any other headgear, primero stays put and doesn't interfere with the accomplishment of the task, but enhances operational efficiency. It is fully compatible to all professional portable radios.

Cutting edge "VIP" technology

To design a headset which maintains speech intelligibility on one hand, doesn't interfere with any headgear on the other, and is of very small size in addition, our engineers met the challenge by merging all functionalities in one single earpiece. One inner and one outer microphone within primero provide the sophisticated electronics with the required signals. primero is especially useful in circumstances where clear communications in hazardous environments is needed and obstructive headgear makes the operation even more difficult.









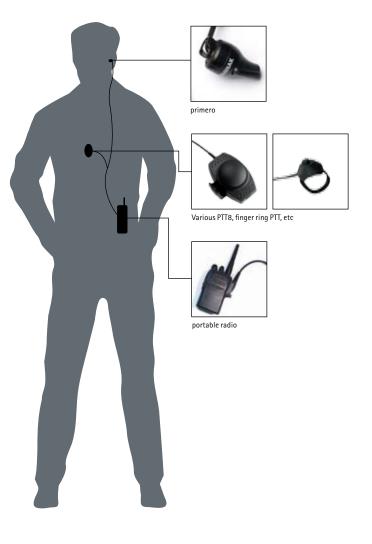
The primero system



Active noise cancellation

Excellent sound quality

Outstanding comfort



Technical specifications primero

Name	primero
Туре	In ear boomless headset with VIP and DSP technology
Size	universal ergonomical shape for optimal comfort and secure fit (left & right)
Frequency response	300Hz 3'600Hz
Max volume @ 1 kHz, automatically limited	103 dB SPL(*)
Length of cable (box to earpiece)	100 cm
Length of cable (box to PTT)	125 cm (2-Key PTT) 120 cm (Fingerring PTT2) 80 cm (PTT 8)
Length of cable (box to radio)	55 cm
Color	Black
Weight (only earpiece)	< 1.3 g
Storage temp	-10° C to + 65° C
Operating temp	0°C to + 40°C
Power consumption of primero	< 5 mA
Power Supply	Power supply from the radio requested (3.3 V10 V)
Standards	EN 301489-1 / EN 55022 / EN 55024

^{*} fullfil the new EU directive and regulation regarding noise at work regulations (regulated by AGC)



Phonak Communications AG is the technology and market leader in the development, design, production and distribution worldwide of ultra miniaturized wireless systems since 1992. The company is part of the Sonova Group, one of the world's top manufacturers of hearing systems, present in over 70 countries and with a workforce of around 4000 people. By combining its expertise in hearing technology with ongoing research at the highest level, Phonak Communications AG has succeeded in making substantial advances in fields like covert communication and protection where Swiss perfection translates into greater efficiency, spontaneity and assurance.

