

# A-KABEL AK5850/AK6631 User Guide

CE 0470 NEMKO  II 2 G Ex ib IIC T4 (-40°C ≤ Ta ≤ 60°C)

A-KABEL's communication headsets are designed for use in noisy environments and come in either helmet attached or headband versions. The headsets have been designed to be safely used in designated ATEX zoned areas.

## Main Parts

1. Adjustable helmet attachment or headband
2. Adjustable stainless steel rods
3. Ear cups with loudspeakers and noise cancelling PUR foam
4. Ear cushions
5. Adjustable, noise cancelling microphone
6. Coil cord, with connector
7. Connection cable

## Adjustment

1. Attach the helmet attachment (1) in the slots on the helmet and put the helmet on the head (follow the instructions from the supplier of the helmet). Alternatively put the headband over the middle of the head in a comfortable position. There are two different sidewise positions for the cups with helmet attachment:
  - Outer position to use in while not visiting noisy areas.
  - Inner position to use in noisy areas
2. While the cups are in the inner position press the helmet or the headband down towards the head. Place the cups (3) to cover the ears. Slide the steel rods (2) up or down with the other hand. The headset shall cover both ears perfectly to achieve the best possible tightness between ear cushions (4) and the skin. Beard, hair, glasses, or other elements between the cushions and the skin may result in poorer noise attenuation.
3. Adjust the microphone (5) in a position in front of the mouth in a distance of max. 10 mm.

## Important Safety

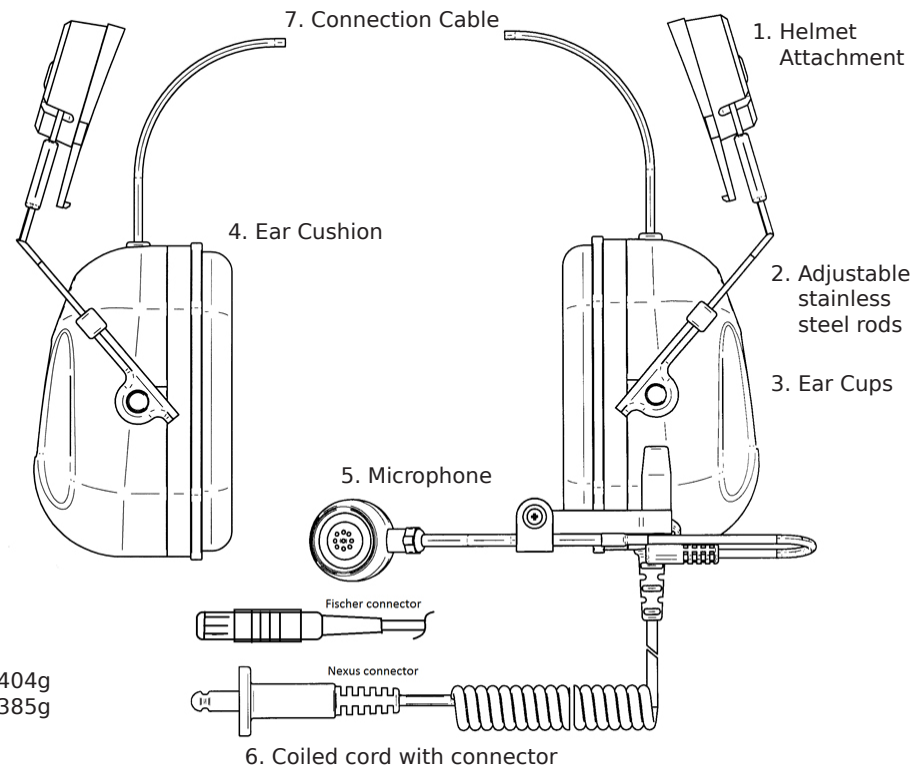
In a noisy environment the headset must be used in the inner position

## Use and Storage

- The headsets can be used and stored in temperatures from -30°C to +60°C.
- Avoid storing the headset in hot areas, for example; near heaters or in a car exposed to the sun.
- While used in explosive areas (Ex) the limitations mentioned in the EX-certificate 03ATEX1351 security class Ex ib IIC T4 - has to be taken into consideration.
- The headset should not be connected to a radio or other electronic equipment that cannot meet the following electronic input limitations:  
Ui: 9V, Ii: 291mA, Pi: 1.2W Ci: negligible, Li: 0.9 MH. See also CE certificate no. 25097ES01 to avoid input signals for more than 82 dB.
- Some chemicals may damage the product. Please contact the manufacturer for more information.

## Change of Hygiene Kit

The hygiene kit contains two foam rings: one cover foam pad and two ear cushions. The ear cushions can be removed by pressing it out from the "snap fastening" by your hands. Replace the foam parts, adjust it to fit and then press on the new ear cushions until you feel a click.



**Weight:**  
AK5850: 404g  
AK6631: 385g

## Maintenance

Keep the headset clean. To clean the headset use a soft damp cloth, mild soap/detergent can be added. Desinfection may be done with klorhexidin or alcohol. Avoid soaking the noise cancelling parts, the foam or the inner parts of the headset. If this happens, the foam has to be taken out and left to dry in a dry place.

The headsets are made of modules and spare parts can be ordered from the manufacturer. If the foam or the ear cushions are heavy soiled or damaged it is recommended to replace the damaged parts. This can be done by using the hygiene kit order no. AK6501.

## Microphone Technical Data

Frequency: 70-9000 Hz ± 6 dB, Sensitivity: 4 mV/220 Ω, Impedance: 230 Ω, Attenuation: 12 dB in 1 kHz

## Attenuation Values

Frequency	125	250	500	1000	2000	3150	4000	6300	8000
Mean attenuation	18.6	19.9	27.5	35.2	32.0	38.1	39.2	36.2	34.6
Std. deviation	3.7	3.3	4.0	3.7	3.4	3.6	4.0	4.1	4.8
APV	14.9	16.6	23.5	31.5	28.6	34.5	35.2	32.0	29.8

**SNR:** 29dB, **H:** 31dB, **M:** 26dB, **L:** 20dB, **NRR:** 21dB