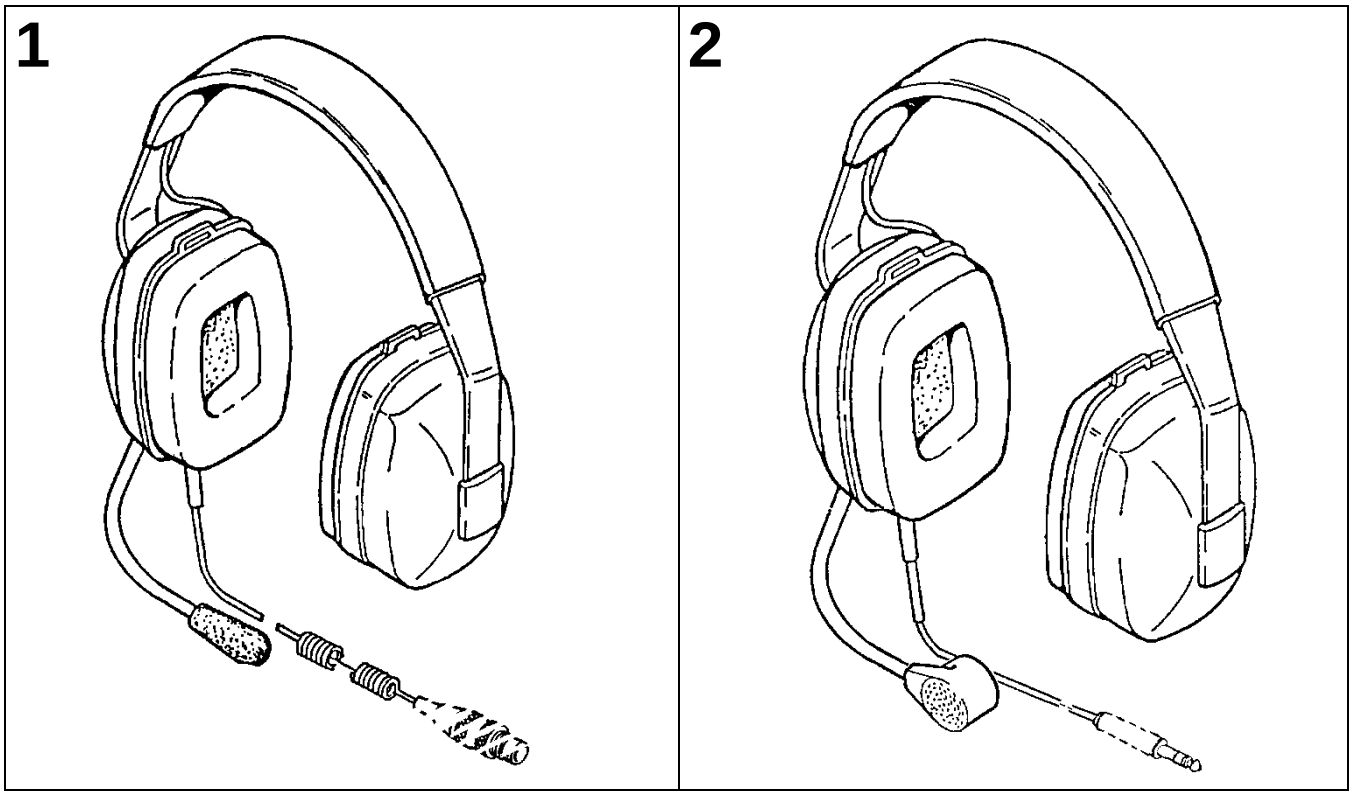
CeoTronics
Audio · Video · Data Communication

CT-Communication Headsets

Operating Instructions



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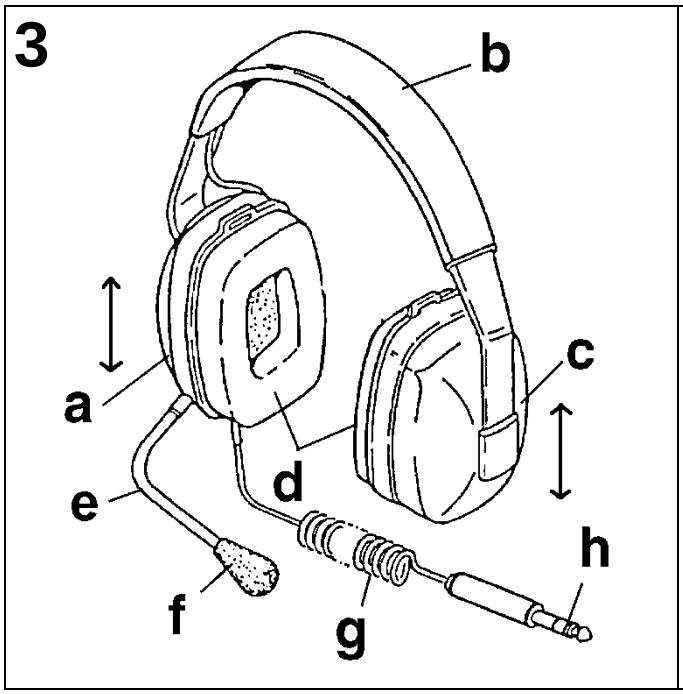

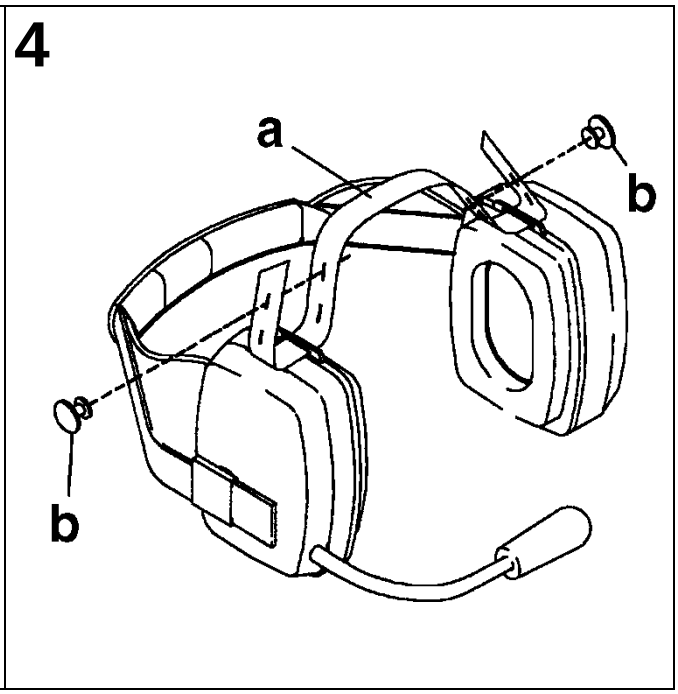

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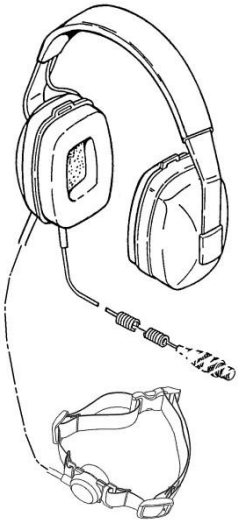

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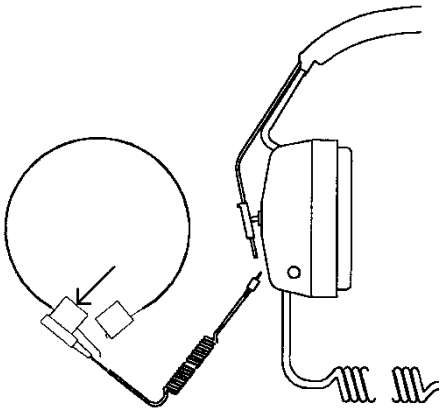

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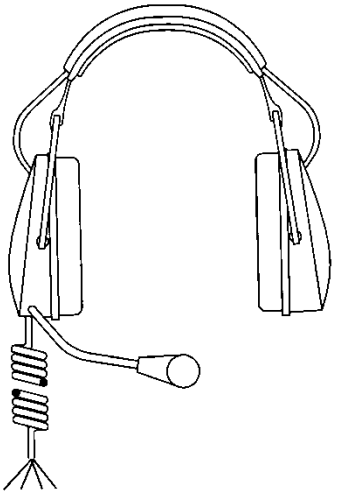

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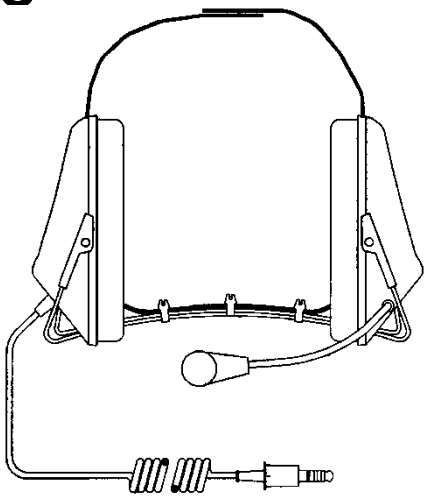

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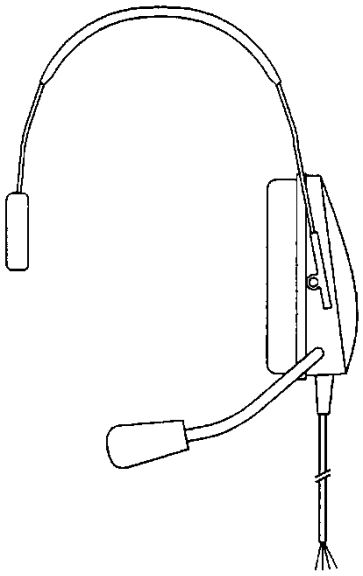

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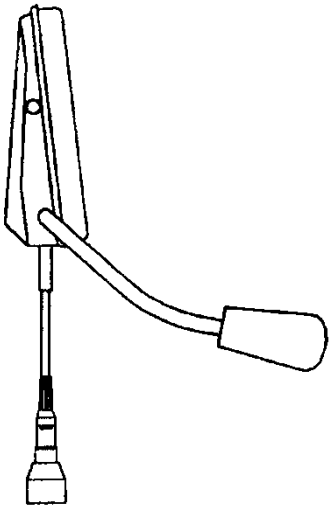

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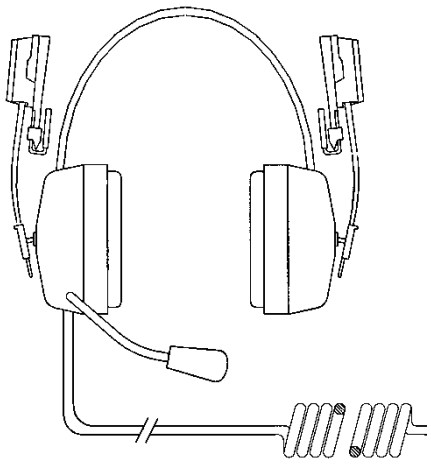

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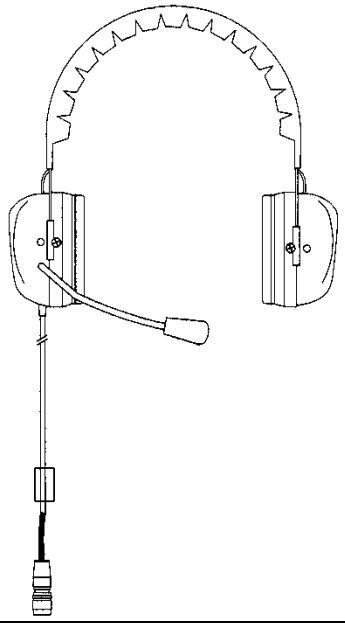

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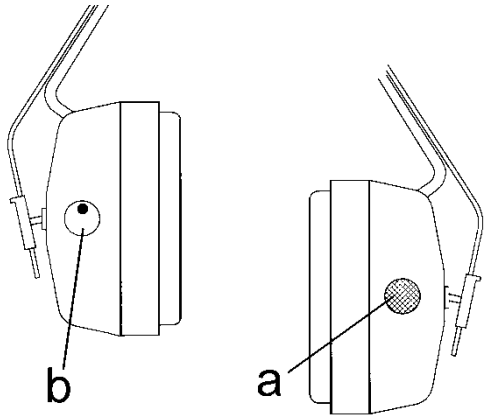

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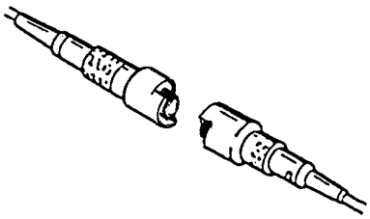

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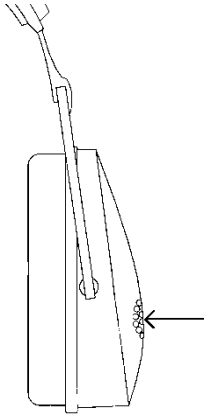

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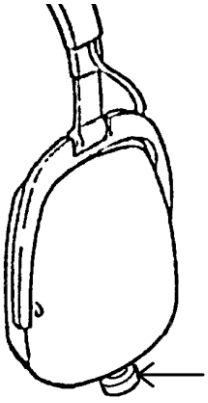

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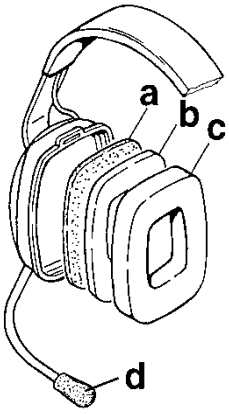

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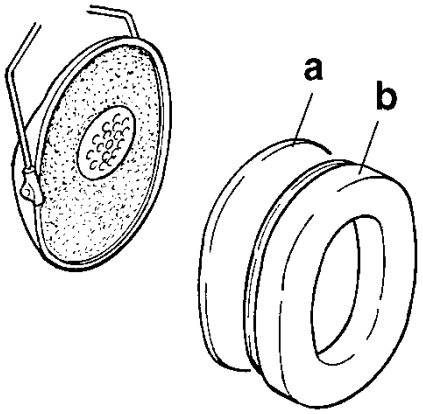

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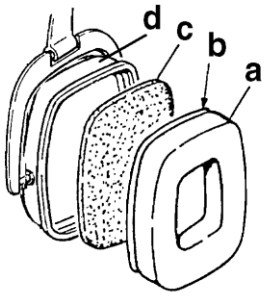

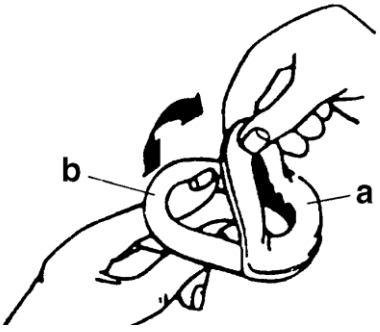

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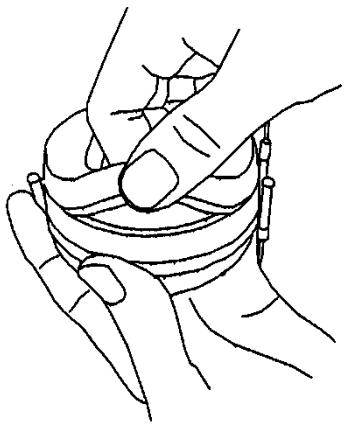

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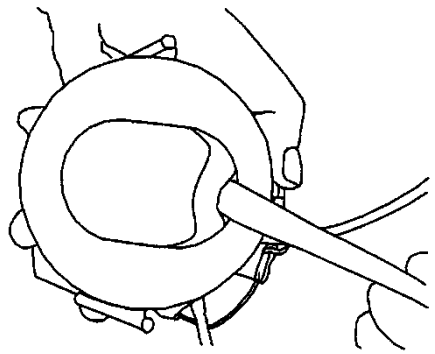

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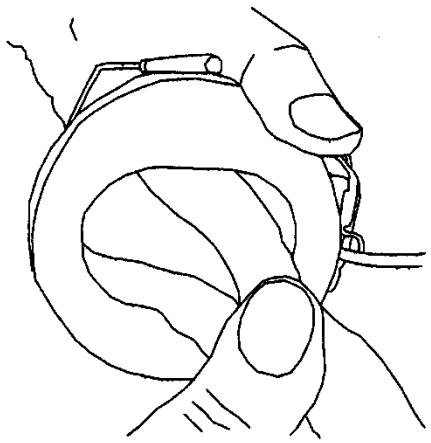

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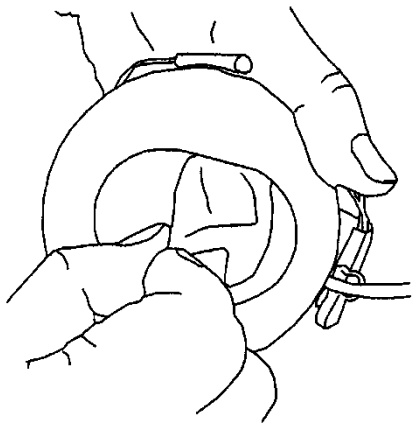

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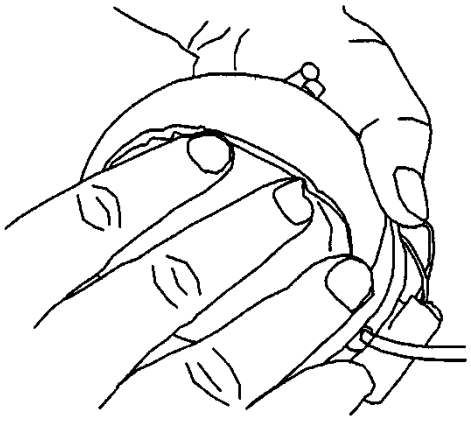

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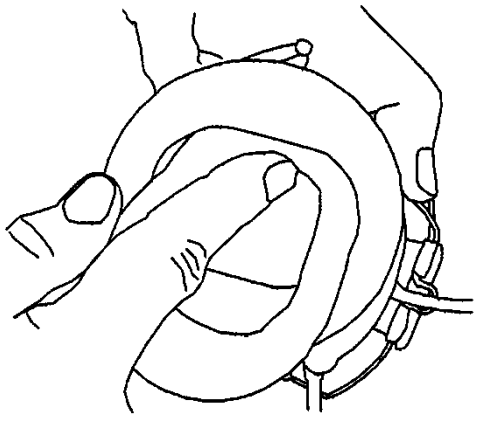

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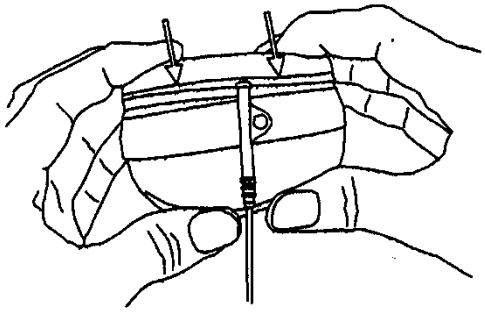

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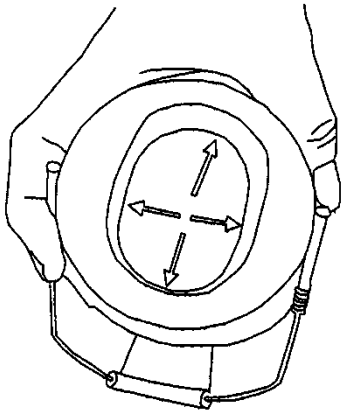

Headset (model example) – key to Fig. 3 on page 2

a Right headset muff
b Adjustable headband
c Left headset muff
d Ear cushions
e Flexible gooseneck
f Microphone and windshield
g Connecting cable (example coiled cord)
h Connection plug (example male jack plug)

Important safety instructions

For the use of the device notice the national safety and accident prevention regulations and the following safety instructions shown in italics in this instruction manual.

- *Before using CeoTronics products read completely the appropriate operating instructions. If in doubt, ask our technical staff.*
- *If repair work of any kind needs to be done to CeoTronics products, arrange for it to be performed only by the company CeoTronics or by a specialized workshop that is authorized by CeoTronics. In all other cases our warranty and liability for the product shall lapse.*
- *Do not store CeoTronics products outside or in damp ambient conditions. At all times keep them clean, dry and at normal air humidity. CeoTronics products must not be stored in areas with a temperature of over +80° C (+176° F), e.g. in the summertime on the parcel shelf of a car. If not stated otherwise, the following temperature ranges are allowed for CeoTronics products: -10 to +55° C (+14 to +131° F) for operation, -40 to +80° C (-40 to +176° F) for storage.*
- *Do not immerse a CeoTronics product into water, if it is not expressly specified for this purpose.*
- *When using CeoTronics products that are equipped with connection leads ensure that the latter do not get caught up in operational machinery or wheels!*
- *Type-tested muffs with a high degree of passive noise attenuation are used for CeoTronics headsets with headset muffs. If not stated otherwise, it is our experience that the passive noise attenuation of the headset muffs is reduced by approx. 3 dB due to the electronics that are integrated into the headset muffs. As a rule no empirical values are available for non-standard products.*

  Information to noise attenuation values, which result from representative measurements of a named place, are to be regarded as orientation values, which cannot be guaranteed, if no "Type Examination Certificate" is present.

  Note that it acts with electronic communication systems of CeoTronics, <u>not</u> around "Personal Protective Equipment" in the sense of the "PPE Directive 89/686/EEC", if not differently indicated.

  At very high noise levels that exceed the passive protective effect of the headset muffs we recommend that ear plugs be worn as an additional measure. If in doubt, ask your safety officer or company doctor. Full noise attenuation exists only if the muff padding is in perfect condition. This should be replaced at the latest after every 6 months of use.
- *In the case of headsets with headset muffs that protect against harmful ambient noise and that are not equipped with additional electronics for level-limited ambient sound reception, take heed that the audibility of warning signals, warning calls etc. is also impaired!*
- *CeoTronics products that are not intrinsically safe (explosion-proof) and therefore have no special explosion-proof designation must never be operated in potentially explosive environments (e.g. when refuelling cars, aircraft etc.). Devices that are not explosion-proof can unintentionally trigger off explosions in such areas !*
- *Connect CeoTronics accessories to a device or disconnect them from a device only when the device is switched off.*
- *For safety reasons reception volumes in excess of 85 dB(A) are possible with a whole series of CeoTronics products. However, these can be regulated by the user. Do not set the volume any higher than is necessary. A very high volume setting can lead to damaged hearing, particularly if it is continuous. For high volumes or noise levels wear additional ear plugs. If in doubt, ask your safety officer or company doctor.*
- *Do not leave CeoTronics products lying around loose in cars, e.g. on the parcel shelf. Stow these products in a suitable, safe place in the car so that they do not present a danger to you or to other occupants of the car, if emergency braking is effected.*
- *Keep CeoTronics products out of the reach of children and any other persons who are not familiar with the handling and operation thereof.*

- *Packaging materials, e.g. filling materials and plastic bags are not toys and have to be kept out of the reach of children. There is a risk of children ingesting them and choking!*
- *Safe operation requires clean devices. Ensure that the devices (microphones, connectors etc.) are clean and in good condition at all times.*
- *CeoTronics products may only be used for the specific application envisaged.*
- *Should equipment, supplied by CeoTronics, be definitely put out of service you may return it to CeoTronics.*

We ensure recycling and/or disposal of outdated equipment in compliance with the applicable environment protection law.

- *Keep these operating instructions for later use.*

1. Description

1.1 General

Headsets with headset muffs are used in conjunction with communication devices. They protect against harmful ambient noise and allow communication in high ambient noise areas. Various headset versions (see Fig. 1, 2 and 5-12) are available depending on the usage requirements, e.g. with different headset muffs, headbands, headstraps, microphones and speakers. The most frequently used headsets are desribed in these operating instructions. The operation of other headsets is similar.

1.2 Speakers and microphones

As a rule the headsets are equipped with dynamic speakers.

The most frequently used microphones are

– the noise-compensating electret nearfield response microphone with windshield and flexible gooseneck (Fig. 1, 3, 4, 9, 10, 11,12, 17)
– the dynamic microphone with flexible gooseneck (Fig. 2, 7, 8)
– the throat microphone with an elastic and adjustable stretch necklet (Fig. 5) or the throat microphone with flexible and padded metal harness (Fig. 6) instead of the stretch necklet

1.3 Connecting cables and plugs

For connection of the headsets to a communication device various straight or coiled connecting cables as well as connection plugs (optional) are available. Headsets are also obtainable with a connecting cable with open wire-ends for connection to the communication device by the customer.

Safety plug connection

Headsets can be provided with a weatherproof optional safety plug connection (example Fig. 14) in the connecting cable to the communication device. This opens at a specific tensile load, e.g., if the cable gets caught up or the user falls over.

⚠ CAUTION

A defective safety plug connection may only be repaired at our works. Do not make any attempts to repair this yourself.

1.4 Headset with level-limited ambient sound reception

Headsets with level-limited mono or stereo ambient sound reception are used mainly where ambient sounds, warning signals etc. have to be heard alongside communication. With mono ambient sound reception (example Fig. 13) the ambient sounds are received by means of a microphone (Fig. 13/a) on the front of the headset muff and are audible via an ambient sound speaker in this headset muff. With stereo ambient sound reception one microphone and one speaker for ambient sound reception each reside in the left and in the right headset muff. If the ambient sound levels exceed 85 dB(A), the sound level emitted to the ear by the ambient sound speaker in the headset muff is limited electronically to a maximum of 85 dB(A). The overall sound insulation of the headset muffs is, however, limited to the "passive" sound insulation of the headset muffs.

1.5 Headsets with boreholes or rubber plug in the headset muff for ambient sound reception

In the headset muff are boreholes (example Fig. 15) or is a secured rubber plug (example Fig. 16). Because of the boreholes ambient sounds can be heard via this headset muff. In the case of headsets with rubber plug, the rubber plug has to be pulled out of the headset muff, to bypass the sound insulation of this headset muff.

1.6 Headset muffs for helmet fastening

The two headset muffs can be supplied without a headband for lateral fastening to a protective helmet (example Fig. 11). Various fastening components are available to suit the specific type of helmet. Separate fitting instructions are available for fastening to the helmet. These are supplied complete with fastening components. Lay the connection cable between the two headset muffs so that it does not cause any interference. In addition you can also use the headstrap which is packed with each headset (see section 3, step »b«). If no noise protection is required for the activity, you can fold the two fastening arms with the headset muffs outwards and away from the helmet.

1.7 On/Off switch for the microphone

The microphone can be switched on and off with the switch »Mic.–OFF–Mic.« (Fig. 3/a) at the bottom of the headset muff. Three switch positions are possible.

Middle position »OFF« (receiving): The headset microphone is switched off. You can only receive.

Front switch position »Mic.« (transmitting and receiving): The headset microphone is switched on. You can speak into the microphone as long as you hold the switch in this position and simultaneously a message is being received. After releasing the switch the switch returns to the middle position »OFF«.

Rear »permanent« switch position »Mic.« (transmitting and receiving): The headset microphone is permanently switched on. You can speak into the microphone and simultaneously receive a message.

1.8 Headset without On/Off switch for the microphone

After switching on the headset the microphone is permanently switched on.

2. Commissioning and operation

a. **Putting on the headset:** Put on the headset. Adjust the hight of each headset muff equally on both sides while holding the headband down on the top of the head until the ear cushions have a tight and comfortable fit. The headband should sit straight and comfortable on the top of the head. For hygiene reasons we recommend the use of the washable sweat absorbers on the headset muffs. These are pulled over the ear cushions and are for the purpose of wear comfort and hygiene.

b. **Wearing the headset with additional headstrap in the case of headsets with VK shells:** In the event of rapid body movements or extreme body postures or if you are using a protective helmet the headset can be additionally secured on your head by means of the headstrap (Fig. 4/a) supplied with the headset. Pull the headstrap in accordance to Fig. 4 through the slits in the headset muffs and fasten it by means of the two holding studs (Fig. 4/b).

   Putting together the holding stud elements: If this has not already been done ex-works, press the stud of the small holding element into the round opening of the large holding element until it engages.

   Put on the headset, fold the headband to the rear and wear the headband as a neckband. Ensure that the headstrap and neckband are tautly seated.

c. **Headset with gooseneck microphone:** Adjust the flexible gooseneck so that the microphone is positioned at a distance of approx. 5 mm (0.2 inch) in front of your lips. Optimal voice transmission and the best possible noise compensation are then provided.

   ⚠ **CAUTION**

   Do not twist the flexible gooseneck. Do not carry the headset by the gooseneck.

d. **Throat microphone with stretch necklet (Fig. 5):** The stretch necklet is adjustable to the neck size of the wearer and closed and opened by a snap fit. Place the stretch necklet around the neck, fix it, and position the microphone to the throat. Connect the throat microphone via the connecting cable and plug to the headset, if it isn't permanently connected to the headset.

e. **Throat microphone with flexible and padded metal harness (Fig. 6):** Place the harness around the neck and position the microphone to the throat. Connect the throat microphone via the connecting cable and plug to the headset, if it isn't permanently connected to the headset.

f. **Connecting the headset and putting it into operation:** Connect the headset to the communication device. Switch on the communication device. The headset is ready for communication and on standby/reception (hearing).

   If the headset is provided with an optional on/off switch, switch on the headset by means of this on/off switch.

g. **Adjusting the speaker volume for the headset:** The speaker volume for the headset is usually adjusted on the communication device.

   If the headset is provided with an optional volume control knob, the speaker volume can be adjusted additionally by means of this volume control knob.

h. **Speaking and hearing:** Speaking takes place via the headset microphone, hearing via the speaker(s) in the headset.

i. **Headset with level-limited ambient sound reception:**
   The level-limited ambient sound reception is usually switched on or off and the volume is adjusted by means of an optional combined on/off switch and volume control knob (example Fig. 13/b).

   In the case of headsets with an optional volume control knob, but without on/off switch, the volume for the ambient sound reception is adjusted with this control knob. The ambient sound reception is in operation as soon as the headset is connected to the communication device and the communication device is switched on.

   In the case of headsets without volume control and without on/off switch the volume for the ambient sound reception is set to a fixed value by the factory. The ambient sound reception is in operation as soon as the headset is connected to the communication device and the communication device is switched on.

j. **Headset with boreholes in the headset muff (Fig. 15) for ambient sound reception:** Ambient sounds, warning signals etc. can be heard via the boreholes in the headset muff.

k. **Headset with rubber plug in the headset muff (Fig. 16) for ambient sound reception:** Pull the rubber plug out of the headset muff if you want to hear ambient sounds, warning signals etc. alongside carrying out communication. By it the sound insulation of the headset muff is bypassed.

3. End of operation

Take off the headset and disconnect it from the communication device. In the case of headsets with ambient sound reception switch off the ambient sound reception, if the headset has an on/off switch for the ambient sound reception. Clean the headset thoroughly.

4. Safekeeping – storage

After use, keep the cleaned device in a clean and dry place at normal room temperature and at normal relative air humidity.

Gel pads of Silenta ear defenders (figure 12)
Gel pads must never be exposed to direct sunlight. They should be stored at room temperature.

5. Maintenance

5.1 Visual inspections

Regularly examine the device and in particular the headset muffs, ear cuhions, cables and connectors for signs of breakage, cracks and wear. Send any defective devices back to CeoTronics for repair.

Replace any damaged or worn ear cushions in accordance with 5.4...5.4.3 at the latest after 6 months of usage. If necessary, also change any dirty cover foams in the headset muffs.

Gel pads of Silenta ear defenders (figure 12)
It is possible that gel pads turn yellow; this however does not affect their function. In order to ensure proper functioning of ear defenders, the gel pads have to be replaced in case of leakiness (cracks, holes, etc.), or after two years at the latest. Leaks may be sealed temporarily (e.g. to finish an operation) with talcum or similar to avoid that leaking gel could stick to skin or hair.

5.2 Cleaning

⚠ WARNING

When cleaning ensure that no moisture is allowed to penetrate to the inside of the unit. Do no use any solvents (e.g. benzine, alcohol etc.).

Remove any loose dust with a soft brush. If necessary, clean the outside with a suitable clean tissue only slightly moistened with clear water and subsequently rub the unit dry again. If heavily soiled, a little dishwashing liquid can be used in addition. If necessary clean the plug terminals with a commonly available contact cleaning agent.

Gel pads of Silenta ear defenders (figure 12)
Gel pads may be cleaned with plain water and soap and then rubbed dry. Other cleaning agents, disinfectants or chemicals must not be used.

5.3 Replacing the microphone's windshield

Pull the windshield (Fig. 17/d) off the microphone and replace it.

5.4 Replacing the ear cushions and cover foams

5.4.1 Headset with VK shells (Fig. 17)

Ear cushions (Fig. 17/c): Pull the ear cushion off the headset muff and replace it. Ensure that the new ear cushion fully engages into the headset shell.

Cover foam (Fig. 17/a):

⚠ CAUTION

When removing the shell ring proceed with care so that you do not injure your fingers or break your finger nails.

Pull the ear cushion (Fig. 17/c) off the headset muff. Hold the headset muff with one hand. Push four fingers of the other hand inside between the cover foam (17/a) and the shell ring (17/b). With your fingers pull the shell ring hard, but carefully, away from the headset muff and at the same time use your thumb to press the headset muff hard in the opposite direction. Change the cover foam. When reassembling, ensure that the shell ring and the ear cushion engage fully into the headset muff.

5.4.2 Headset with Peltor shells (Fig. 18)

Pull off the ear cushion (Fig. 18/b) from the ear muff and replace it. Replace the cover foam (Fig. 18/a). Make sure that the new ear cushion locks in place completely.

5.4.3 Headset with AS/AM shells (Fig. 19)

a. Pull with force – but carefully – the shell ring (Fig. 19/b) together with the ear cushion (Fig. 19/a) off the headset muff (Fig. 19/d). Replace the cover foam (Fig. 19/c).
b. Pull the old self-adhesive ear cushion (Fig. 19/a) off the shell ring (Fig. 19/b). Clean the shell ring. Pull the protective foil off the new ear cushion and adhere the new ear cushion to the shell ring. Attach shell ring and new ear cushion to the headset muff. Ensure that the shell ring audibly engages.

5.4.3 Headset with Silenta ear defenders (figure 20-27)

Pull the ear cushion off the headset's ear defender (figure 20).

Introduce an appropriate tool with a flat wide edgeless tip under the retaining ring and »lever« the foam packing ring carefully out (figure 21).

Pull out the packing ring under the retaining ring (figure 22).

Pull out the foam cover under the retaining ring (figure 23).

Place the new foam cover accurately onto the retaining ring. Push the edges of the foam cover carefully under the retaining ring (figure 24).

Insert the foam packing ring carefully in correct position under the retaining ring (figure 25).

Put the new ear cushion in correct position back into the headset's ear defender and press it well down all around (figure 26).

When mounting the retaining ring again, take care that the oval aperture of the ear cushion coincides with that in the retaining ring below it (figure 27).

6. Consumable parts

Designation and description	**Art. No.**
Comfort set consisting of a 25 pair-pack washable sweat absorbing cotton pads	40 10 025
Windshield for electret microphone, 10 pieces	50 02 201
Hygiene set for headsets with VK shells consisting of: 2 pieces ear cushion, 2 pieces cover foam	50 00 495
Hygiene set for Headsets with Peltor shells consisting of: 2 pieces ear cushion, 2 pieces cover foam	50 00 496
Ear cushion for headsets with AS/AM shells, 2 pieces	50 00 502
Cover foam 5 mm for headsets with AS/AM shells, 1 piece	50 00 305
Gel pad for Silenta ear defenders	50 90 321
Foam cover for Silenta ear defenders	50 00 784

Certificate No. 01100004023 (ISO 9001)

Certificate No. 01220004023 (ATEX)

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