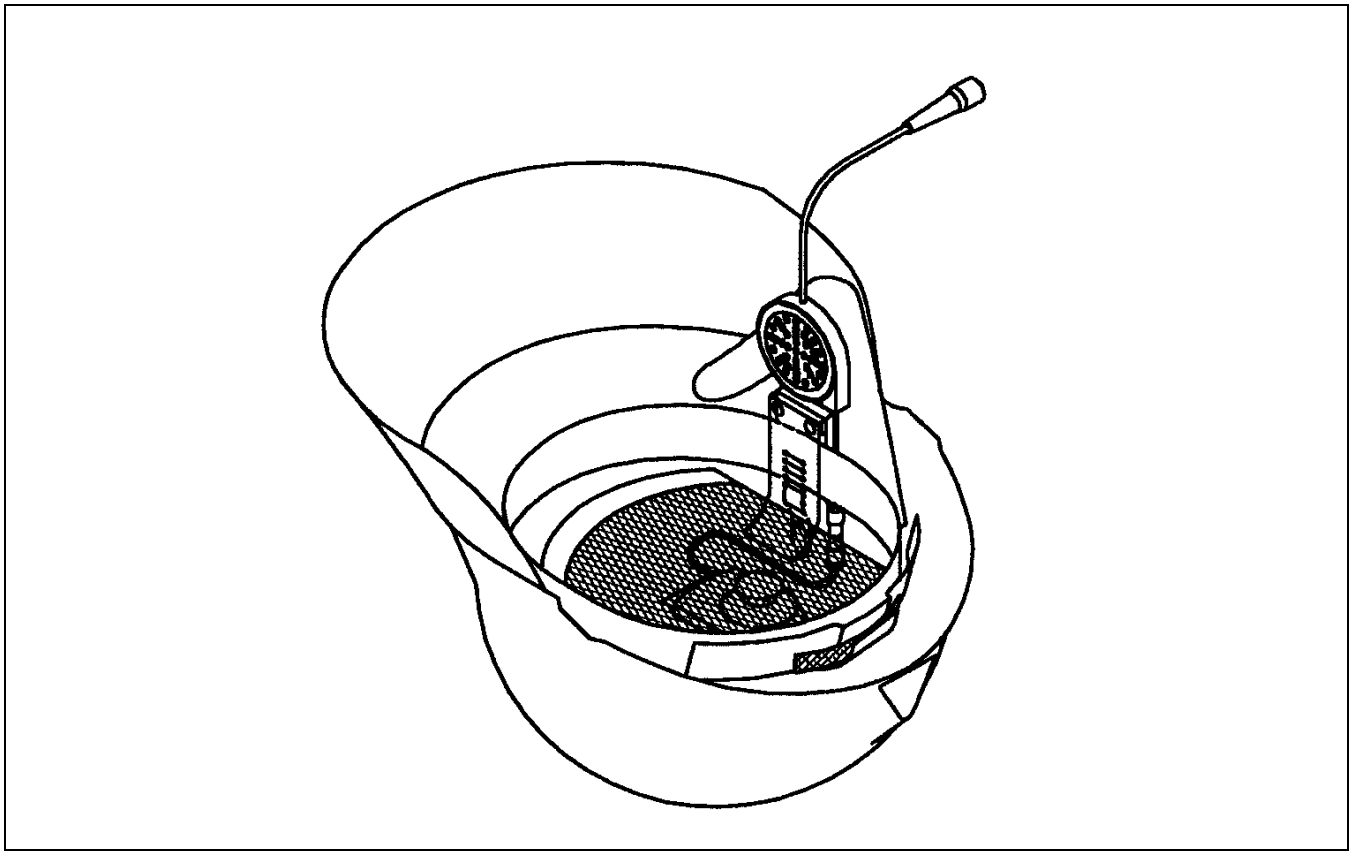
CeoTronics
Audio · Video · Data Communication

CT-ContactCom

Communication System
for Fire Helmet Schuberth F 200

Fixation and Operating Instruction



Contents

1. 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 !*
- *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. After switching on the communication system, set the reception volume to approx. 1/2 the available loudness volume and then test the audible volume, e.g. by opening the squelch on the radio set.*

  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.*
- *When driving a car, do not use the radio because it may distract you from the other traffic. Never use a CeoTronics product (headset, insert earphone, induction receiver etc.) that will impair your hearing.*
- *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.*

2. General description

CeoTronics ContactCom is a communication system which is preferably used with portable radios. It is used in all situations in which standard dynamic or electret boom microphones cannot be used or are a hindrance or hazard for the user.

2.1 Construction

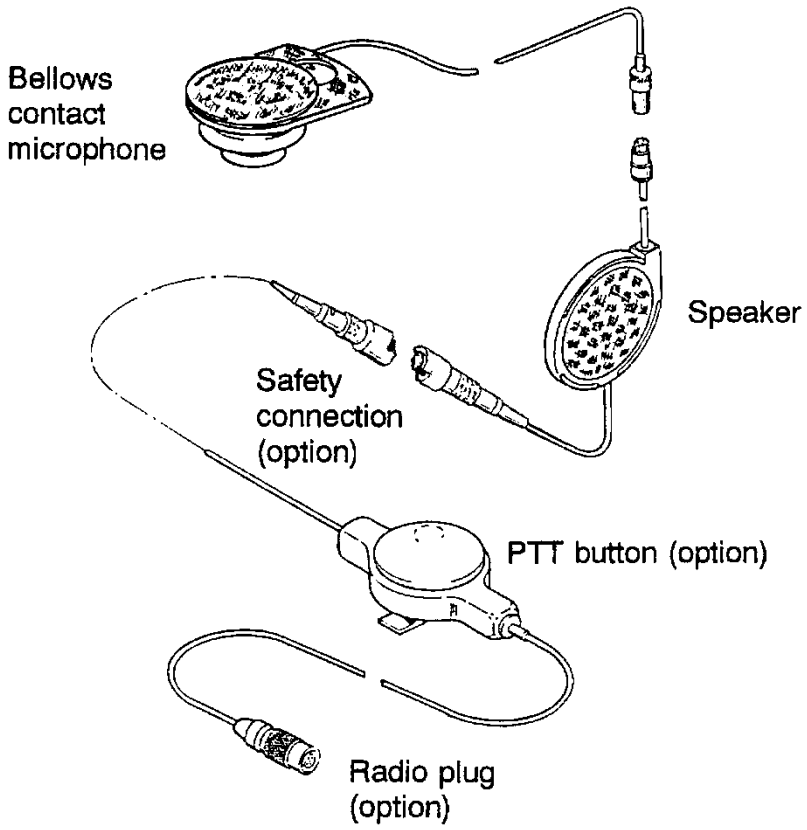
The ContactCom communication system (Fig. 1) normally consists of:

- ContactCom bellows contact microphone
- ContactCom speaker
- Safety connection (option)
- Inline PTT button (option)
- Radio plug (option)
- Fixation devices

Fig. 1 shows a ContactCom system (example) without fixation devices.

Fixation devices see Fig. 8 and 9 in section 4.

Fig. 1 ContactCom (example)

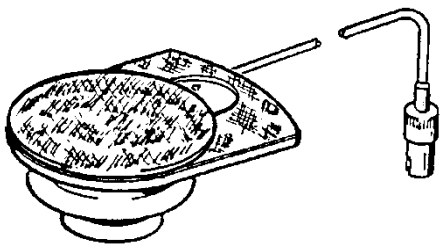


2.2 Contact microphone and amplifier

The contact microphone, in which an amplifier resides, picks up the voice from the top of the head, converts the voice to electrical signals and amplifies the signals. The signals are then transmitted via the radio. Depending on the radio different amplifiers are available. Fig. 2 shows a bellows contact microphone.

When it is delivered the bellows contact microphone is provided with a protective round Velcro part. Let the Velcro part fixed if it doesn't affect the fixation of the contact microphone.

Fig. 2 Bellows contact microphone (example)

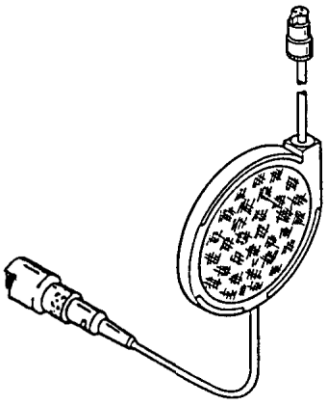


2.3 Speaker

ContactCom can is available with one or with two speakers. Different speaker types and speaker impedances are available.

Fig. 3 shows a speaker inserted in a flat housing.

Fig. 3 Speaker inserted in a flat housing (example)



2.4 Ear cushion for speaker

For more personal comfort and better hearing protection speakers in a flat loudspeaker housing can be provided with an ear cushion (option), shown in Fig. 4.

Pull off the protective foil from the associated selfadhesive velcro loop ring (Fig. 5). Adhere the selfadhesive velcro loop ring to the open inner side of the speaker which is placed towards the ear. Fix the ear cushion with the velcro hook side to the velcro loop side of the velcro loop ring.

Fig. 4 Ear cushion for speaker (option)

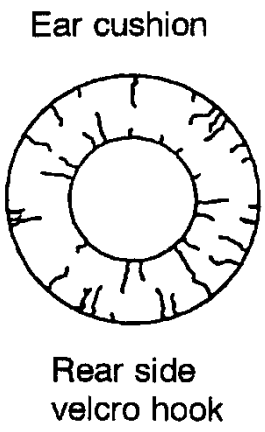
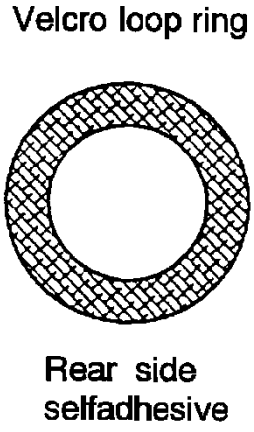


Fig. 5 Velcro loop ring for speaker (option)



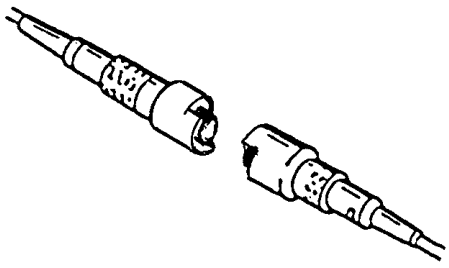
2.5 Plug connections – safety plug connection

The ContactCom components are connected by cable plugs and sockets and are easily replaceable when necessary. To disconnect a plug connection only pull at cable plug and socket, never pull at the cables.

In the connecting cable between PTT button and speaker is normally a weather resistant inline safety plug connection (Fig. 6). This opens at a specific tensile load, e.g., if the cable gets caught up or the user falls over.

Other safety plug connections can also be used.

Fig. 6 Safety plug connection (option)



⚠ CAUTION

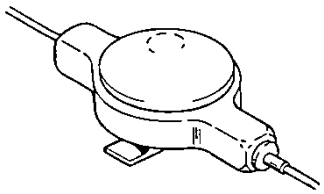
A defective safety plug connection may only be repaired at our works. Do not attempt to do any repairs on your own !

2.6 PTT button

For transmitter keying by hand several PTT buttons (PTT = push-to-talk) can be used. Mostly used is the inline PTT button (Fig. 7) installed in the connecting cable between ContactCom speaker and radio.

With the clip on the rear the PTT button can be fastened to a suitable place on the clothing.

Fig. 7 Inline PTT button (option)



The PTT button can be equipped with switch-over electronics (optional). This electronics switches automatically from ContactCom microphone and speaker to radio microphone and speaker when the plug connection between ContactCom speaker and PTT button is opened. Then communication can be done via the radio without using ContactCom speaker and microphone.

2.7 Radio plug

Radio plugs (option) for nearly all of the marketable radios can be delivered. The installation of the radio plug to the ContactCom connecting cable is normally done ex-works.

2.8 Power supply

Power for the ContactCom communication system is normally supplied by the radio.

3. Installation of ContactCom

For installation of contact microphone and speaker into the fire helmet Schuberth F 200 the fixing parts (Fig. 8 and 9) are used.

For fixation of the speaker the universal microphone and speaker fixing part (Fig. 9) is used. The fixing part for the contact microphone is not necessary. Stow it inside the helmet that it doesn't disturb the helmet carrier or cut it off.

Fig. 8 Fixing parts for contact microphone

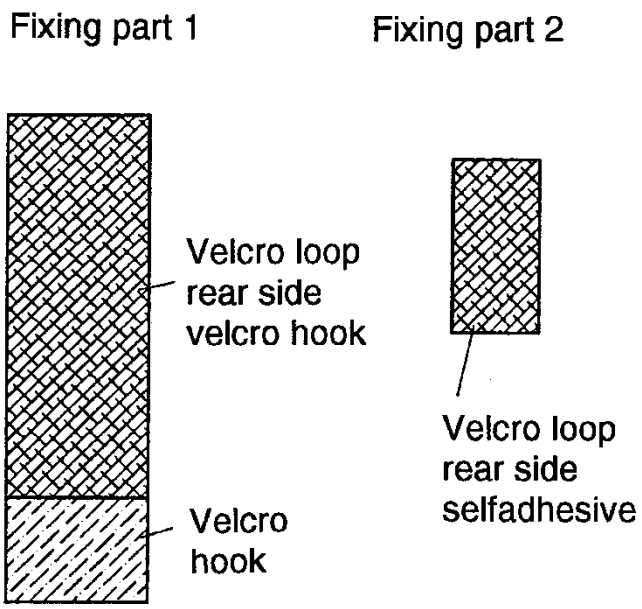
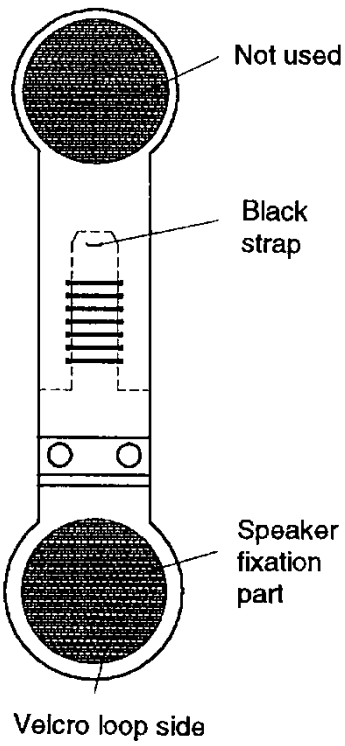


Fig. 9 Universal microphone and speaker fixing part for speaker



3.1 Installation of bellows contact microphone

The best transmission quality is achieved when the contact microphone is placed on the front part of the head.

a. Pull off the protective round velcro part (see section 2.2) from the bellows contact microphone. Fix the bellows contact microphone with the velcro hook side to the velcro loop side of fixing part 1 as shown in Fig. 10.

b. Pull off the protective foil from the selfadhesive fixing part 2. Adhere fixing part 2 to the insert of the helmet as shown in Fig. 11.

c. Slide fixing part 1 and the bellows contact microphone from the side (Fig. 11) or from the rear under the net inside the helmet. The bellows of the contact microphone must be placed towards the head.

d. Fix the front velcro hook part of fixing part 1 to the velcro loop side of fixing part 2.

Fig. 10 Fixation of bellows contact microphone

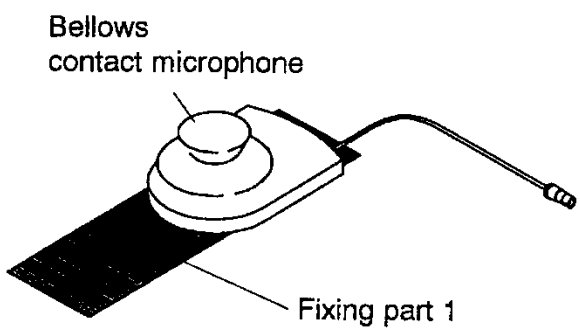
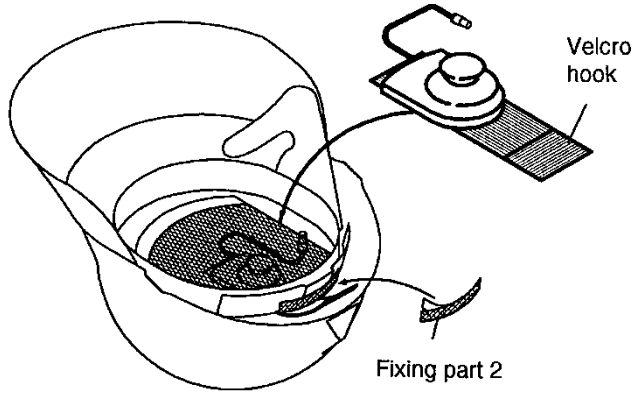


Fig. 11 Installation of bellows contact microphone



Alternatively the bellows contact microphone can be fixed as follows:

a. Cut a slot of a lenght of approx. 20 mm into the net inside the helmet (Fig. 12).

⚠ WARNING

Be careful, do not tear off the wires in the bellows when fixing the bellows contact microphone (step »b«).

b. Slide the bellows contact microphone under the net inside the helmet (Fig. 13). Pull and push the bellows contact microphone completely through the slot in the helmet net (Fig. 14).

Fig. 12

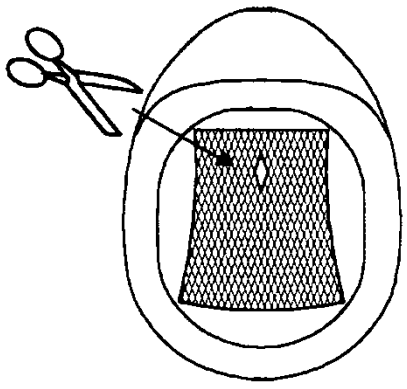


Fig. 13

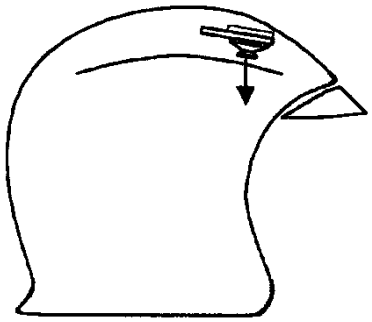
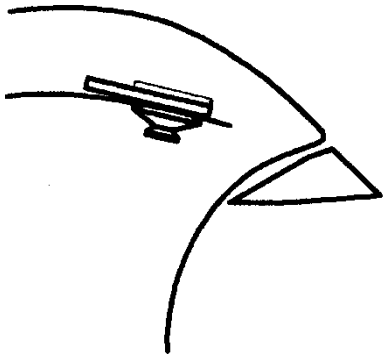


Fig. 14



3.2 Fixation of speaker

For fixation of the speaker the universal microphone and speaker fixing part (Fig. 9) is used. In the following example (Fig. 15 to 18) the not used fixing part for the contact microphone is cut off.

The universal speaker fixing part can be fixed on the right or on the left inner side of the helmet.

a. Slide the universal speaker fixing part onto the headband of the helmet as shown in Fig. 15.

b. Pull the black strap through the first slot of the fixing strap below the headband (Fig. 16) to fix the universal speaker fixing part on the headband.

c. To secure the fixing part pull the black strap from the inner to the outer side back again through an other slot of the fixing strap. Press the punched notch (Fig. 16) out of the black strap for additional securing.

d. Lead the microphone cable behind the headband (Fig. 17) and connect it to the speaker cable. Fix the speaker with the velcro hook side to the velcro loop side of the speaker fixing part (Fig. 17 and 18). Ensure that the speaker cable with the safety plug (option) is led straight downwards out of the helmet. Stow the cables and the plug connection inside the helmet that they don't disturb the ContactCom user while the helmet is worn.

e. The speaker can be provided with an ear cushion (option). Further information see section 2.4.

Fig. 15 Installation of speaker fixing part

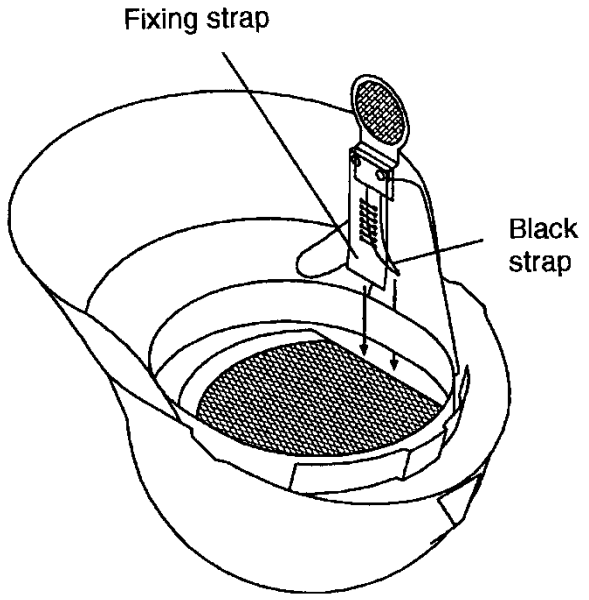


Fig. 16 Securing of speaker fixing

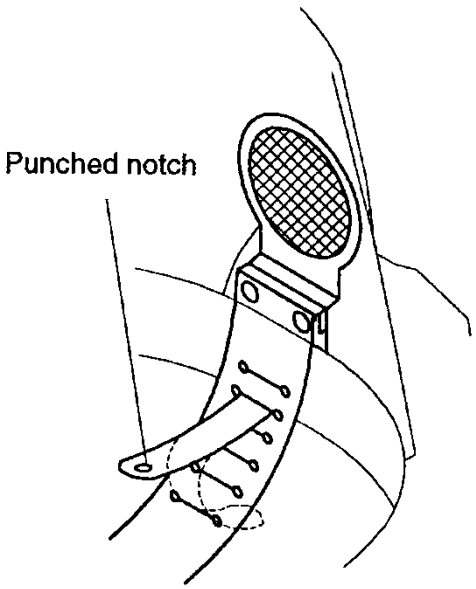


Fig. 17 Fixation of speaker

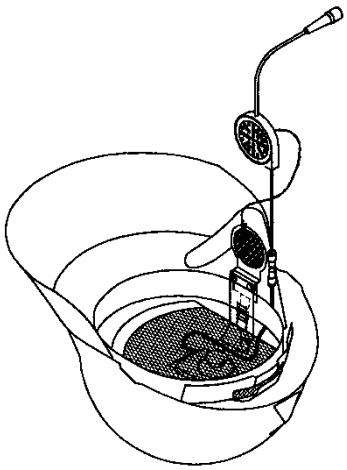
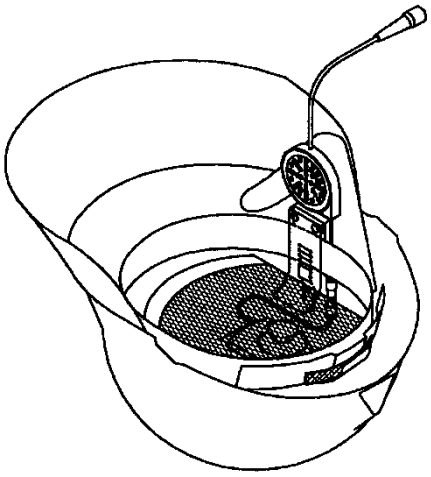


Fig. 18 Fixation of speaker



4. Putting into operation and operation

4.1 Putting into operation

The following instruction concerns a ContactCom communication system with safety connection and inline PTT button. For ContactCom without these parts the corresponding instruction steps can be skipped.

- Connect the safety connection between speaker cable and inline PTT button or between speaker cable and radio.
- Put on the helmet with ContactCom contact microphone and speaker installed. Ensure that the contact microphone has a good contact to the head.
- Fix the inline PTT button with the clip to a proper fixation point of your clothing.
- Connect the radio plug to the accessory socket of the radio or to the adaptor of the radio.
- Switch on the radio and adjust the receive volume for your personal comfort but not to a level higher than necessary. Information for the operation of the radio is given in the operating instruction of the radio manufacturer.

4.2 Transmitting and receiving

PTT operation – manual transmitter keying: By pressing the PTT button the radio is in transmit function. You can speak while the PTT button is pressed. Release the PTT button for receiving again.

Switch-over electronics (option): The PTT button can be equipped with switch-over electronics. This electronics switches automatically from ContactCom microphone and speaker to radio microphone and speaker when the safety connection or the connection between ContactCom speaker and PTT button is opened. Then communication can be done via the radio without using ContactCom speaker and microphone.

5. Safekeeping – storage

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

6. Maintenance

6.1 Visual inspections

Examine the devices and in particular the cables and plug connectors regularly for signs of fractures, cracks and wear. Send defective devices to CeoTronics for repair.

6.2 Cleaning

⚠ CAUTION

Do not immerse the devices in water. No moisture may be allowed to penetrate the devices. Do not use any solvents (benzine, alcohol, etc.) for cleaning purposes !

Remove any loose dust with a soft brush. Clean the outside with a suitable clean cloth that has been slightly moistened with clear water, and rub the parts dry afterwards. If heavily soiled, some dishwashing liquid can be used in addition.

Clean the contacts of the connection plug with a commonly available contact cleaning agent.

Notes

Notes

Certificate No. 01100004023 (ISO 9001)

Certificate No. 01220004023 (ATEX)

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