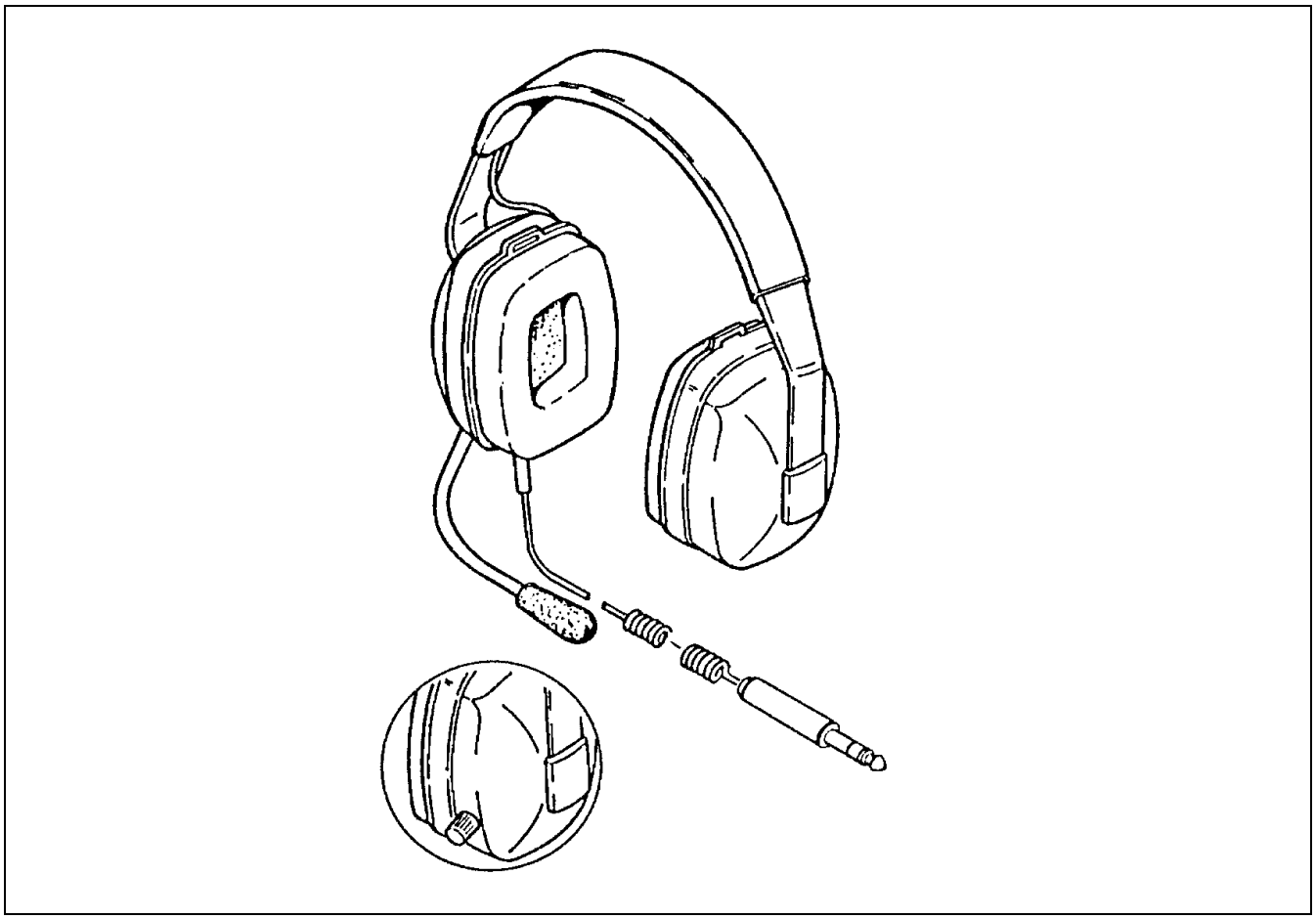
CeoTronics
Audio · Video · Data Communication

CT-WireCom-Digital Headsets for cable-bound communication

Operating Instructions



English

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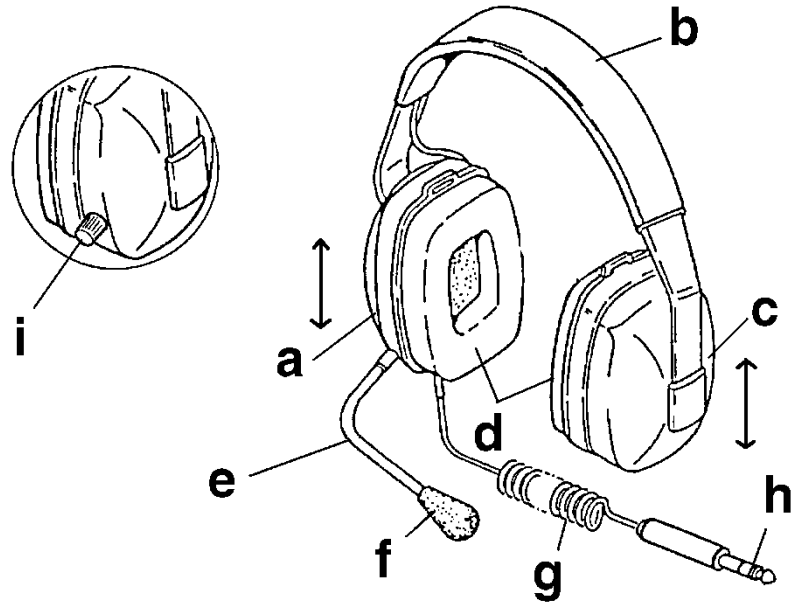

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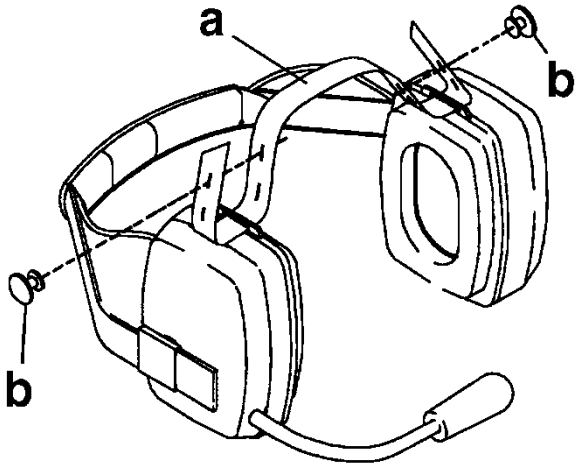

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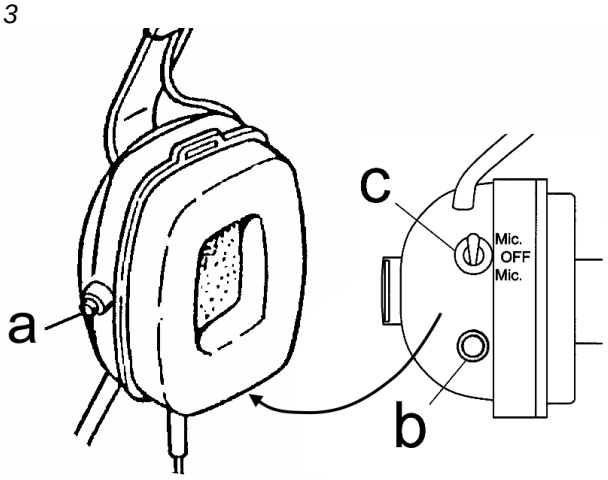

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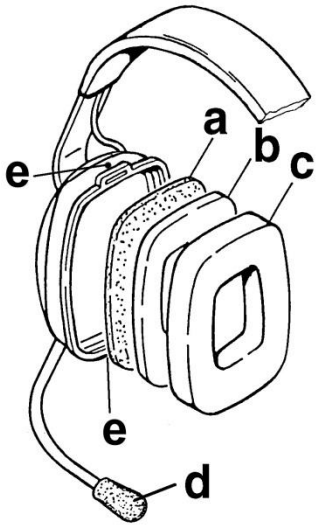

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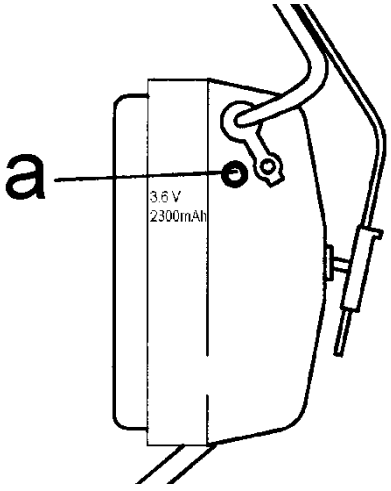

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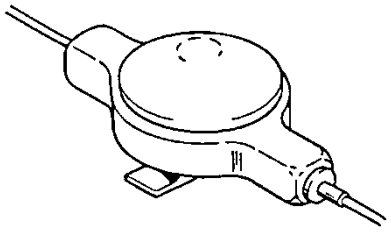

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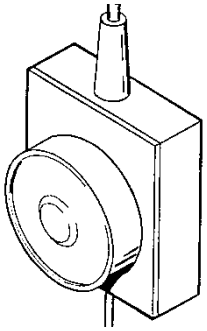

1. CT-WireCom-Digital Headset – key to Fig. 1

a Right-hand headset muff
b Adjustable head band
c Left-hand headset muff
d Ear cushion
e Flexible microphone boom
f Microphone and windshield
g Connection cable (example coiled cord)
h Connection plug (example)
i Volume control or on/off switch **and** for Volume control

2. CeoTronics Operating, Warning, and Safety Instructions

For the use of the device and for prevention of personal injury or property damage, notice the national safety and accident prevention regulations and the following warning and safety instructions in this document.

- *Before using CeoTronics products, read completely the appropriate operating instructions. If in doubt, ask our technical staff.*
- *Keep this document for later use.*
- *Use CeoTronics products only without damage and abrasion.*
- *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.*
- *Keep CeoTronics products out of the reach of children and any other persons who are not familiar with the handling and operation thereof.*
- *CeoTronics products may only be used for the specific application envisaged.*
- *Safe operation requires clean devices. Ensure that the devices (microphones, connectors etc.) are clean and in good condition at all times.*
- *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.*

Product damage!

- *Do not immerse a CeoTronics product into water, unless expressly specified for this purpose.*
- *Connect CeoTronics accessories to a device or disconnect them from a device only after switching the device off, unless otherwise described in the operating instructions.*
- *Let devices that are designed for outdoor use during use outdoors always closed (e.g. CT-DECT Case) and close unused ports with appropriate cover – if available.*
- *Do not store CeoTronics products in the open air or in damp ambient conditions. At all times keep them clean, dry and at normal air humidity. CeoTronics pro- ducts 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 acceptable for CeoTronics products:* -10 to +55°C *for operation, -40 to +80° C (-40 to +176° F) for storage.*
- *Pay attention that no humidity could penetrate into the device during cleaning. Do not use solvents (e.g. benzene, alcohol, etc.) for cleaning! Safe operation requires clean devices. Ensure that the devices (microphones, connectors etc.) are clean and in good condition at all times.*

Risk of injury by connection leads!

- *When using CeoTronics products that are equipped with connection leads ensure that the leads do not get caught up in operational machinery or wheels!*

Risk of injury by speaker volume!

- *Please, note that in some audio devices (e.g. radios) very loud signaling beeps could be present as the radio is switched on. There are various types of devices generating a series of tones in different loudness levels. It may be necessary to adjust the volumes of the tones separately. These tones could damage your hearing if they are set too high. Therefore, adjust signaling beeps to a convenient level as desired before starting to use CeoTronics accessories. Follow the instructions of the audio device manufacturer's operating manual to adjust the signaling beeps.*
- *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 speaker 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 earplugs. If in doubt, ask your safety officer or company doctor.*

Road traffic hazard!
- *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.*

Impairment of flight operation!
- *When on board an airplane always keep a transmitter/receiver switched off. Operation of the transmitter / receiver could affect the safety of the aircraft, and it is therefore prohibited. Never operate electronic devices on board an airplane without the express approval of an authorized member of the cabin crew.*
- *The CT-DECT GateCom Compact must always be removed once the intercom communication is completed. Never remove the warning flag „Remove before flight“ from the CT-DECT GateCom Compact.*

Impairment of radio transmission!
- *Transmit only when it is necessary. Unnecessarily occupying a channel can prevent the transmission of vitally important information.*

Risk of explosion!
- *CeoTronics products that are not intrinsically safe (explosion-proof) and there- fore have no special explosion-proof designation must never be operated in potentially explosive environments (e.g. when refueling cars, aircraft etc.). Devices that are not explosion-proof can unintentionally trigger off explosions in such areas!*

Risk of electric shock!
- *Before opening line voltage operated products (e.g. for service purposes), always disconnect first the mains plug from the mains socket!*
- *Use CeoTronics products only in undamaged condition. In case of any kind of damage, refrain from further using the CeoTronics product and have it repaired.*

Adverse effect on cardiac pacemakers!
- *If you are a cardiac pacemaker carrier, before operating a transmitter / receiver ask the manufacturer of your cardiac pacemaker for information about any impairment that could be caused due to high frequencies.*

Rechargeable batteries and batteries!
- *Observe the environmental regulations when handling storage batteries! Do not throw used (defective) storage batteries into the domestic refuse. Observe the battery ordinance (BattV).*

Risk of injury by Rechargeable batteries and batteries!
- *Insert the rechargeable batteries only after having read and understood all safety instructions. Rechargeable batteries imply potential risks, which could cause physical injury and material damage.*
- *Never intend to open a rechargeable battery and never throw it into open fire. Ensure that contacts and charging sockets of the rechargeable battery do not cause short circuit (risk of fire and injury) by bridging (bent-open paper clip, bunch of keys or similar). In such a case, the guarantee is void.*
- *Transport spare rechargeable batteries in electrically non-conductive packing material in order to avoid shorting the rechargeable batteries.*
- *Keep the rechargeable batteries away from persons who are not familiar with their handling and use (e.g. children).*

- *Charging rechargeable batteries in potentially explosive areas is strictly prohibited (risk of explosion!). Charge and change rechargeable batteries only in areas where no explosive gases, vapours, or dusts could be present in combination with air.*

Damage to charger or rechargeable batteries!
- *Charge rechargeable batteries only using the corresponding appropriate CeoTronics charger. Regard voltage and current data, also on the mains side (e.g. 230 V AC or 115 V AC).*
- *Never use the battery charger for charging non-rechargeable batteries.*
- *Chargers are neither waterproof nor dust-tight and need protection against water, rain, and contamination. Use them only in the appropriate environment, intended for the system. Don´t cover the ventilation openings.*
- *Don't charge rechargeable batteries outdoors.*

Radio Software – Risk of malfunction!
Please note that the function of radio accessories is depending on the software settings set up in your radio. Be careful with software updates and / or changes to the software settings. If you update the radio's software, or if you change the software settings, check first on a radio that the radio accessory is still functioning properly after these changes. It is possible that the receiving volume of some radios is not satisfactory. In these cases, we suggest you check if an increase of the receiving volume is possible via the parameters in the audio profile of your radio.
Follow the information of the radio manufacturer!
If you have any further questions in regards to this subject, do not hesitate to contact our sales back office.

Important safety information concerning the use of CT-DECT digital radio systems!
- *Legal note for operation in the European Union*

The transmitter of the CT-DECT device should be used in the European Union only when it is marked as following:

CE

- *Legal note for operation in the USA*

The transmitter of the CT-DECT device should be used in the USA only when it is marked as following:

FC

- *Legal note for operation in Canada*

The transmitter of the CT-DECT device should be used in Canada only when it is marked as following:

IC

Improper use!
The use of CeoTronics products for special applications, such as explosive and hazardous areas, aviation, bomb disposal (EOD / IEED) or other similar applications, is in the sole responsibility of the end user. The end user has to check and decide that the products can be used without risk.

CeoTronics does not take over responsibility for any damage or material losses nor injuries to persons, caused by the use described above or by any other abnormal use of the products.

Additional safety instructions

- *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, not 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 attenuationsound insulation exists only if the muff padding is in perfect condition. This should be replaced at the latest after every 6 months of use.

3. Description

3.1 General

The CT-WireCom-Digital Headset with headset muffs (Fig. 1) protects against harmful ambient noise and allows cable-bound duplex communication in high ambient noise areas for until maximum 20 user.

Depending on the usage requirements are available CT-WireCom-Digital Headsets with e.g. with only one headset muff.

3.2 Speakers and microphones

CT-WireCom-Digital Headsets are available with one or two speakers.

As microphone is used a noise canceling electret near field response microphone with windshield and flexible microphone boom. The microphone is also available in water-tight design.

The microphone boom is only flexible in the middle part

3.3 Connecting cables and plugs

For connection of the headset to the WireCom System various connecting cables and plugs are available. Most frequently used is the male jack plug 6.35 mm.

3.4 Power supply and operating time

Power supply:

- Bus line; stabilised direct-current voltage $U_{DC=}$ 12V - 24V
- NiMH-rechargeable battery 3,6 V/ approx. 2300 mAh in the right headset muff

Operating time with fully charged rechargeable battery:

- approx. 20h

3.5 ON-/OFF-switch and- volume control

The headsets can be delivered with a combined on/off switch and volume control (Fig. 1/i). The turnable control knob is located on the rear of the right headset muff. The headset is switched off when the control knob is set fully counter-clockwise (off position).

3.6 ON-/OFF-switch for microphone

The microphone can be switch on- and off with the switch »Mic.–OFF–Mic.« (figure 3/c) at the bottom of the right headset muff. Three switch steps 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.

3.7 CT-WireCom-Digital headsets without on/off switch

When using WireCom Headsets with external power supply, e.g. by the WireCom System, the headset is ready for operation after it is connected to the WireCom System and the WireCom System is connected to its supply voltage

3.8 Product liability

We expressly point out that any repair, modification and the replacement of components - Connectors and cables included - only by CeoTronics or authorized by CeoTronics specialist firms may take place. In all other cases warranty and liability for the product shall lapse and goes over to the initiator.

4. Recharging storage batteries

⚠ WARNING

Never use battery chargers to recharge non-rechargeable batteries. Never open storage batteries or throw them into fire. Dead (defective) storage batteries must be disposed off environmentally safe. Do not throw into domestic waste!

Use a CeoTronics charger (see section 10) to charge the 3.6 V/2300 mAh NiMH rechargeable battery or the optional 3.6 V/2300 mAh Li-Ion rechargeable battery in the headset. Using other chargers can cause rechargeable batteries to become damaged. The battery charging socket (see example Fig. 5/a) is located on the right-hand headset muff. Notice the special CeoTronics operating instructions for the charger.

CAUTION

To recharge the battery always switch off the headset.

5. Commissioning and operation

⚠ CAUTION

The rechargeable battery must be fully charged once before using the headset for the first time (approx. 4h).

a. **Connecting the headset**: Connect the headset via the connector to the WireCom System.
b. **Donning the headset:** Put on the headset. Adjust the headset muffs by sliding the head band so that the ear cushions enclose the ears well and so that the head band is lying on the middle of your head, thus achieving the best possible noise attenuation.
c. **Wearing the headset with an additional head strap**: In the event of rapid body movements or extreme body postures or in conjunction with a protective helmet the headset can be fixed to the head additionally by means of the head strap supplied (Fig. 2/a). Pull the head strap in accordance with Fig. 2 through the slits in the headset muffs and fasten it by means of the two holding studs (Fig. 2/b) – if not be carried out by factory.

   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, swing back the head band and wear the head band as a neck band. Ensure taut seating of the head strap and neck band.

⚠ CAUTION

Do not twist the flexible microphone boom. Do not carry the headset by the microphone boom. Use the microphone only with the windshield.

d. **Adjust the flexible microphone boom** 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.

e. **Switching on the headset** – Headsets with external power supply and without on/off switch are ready for operation after they are connected to the WireCom System (see section 3.7). Headsets with combined on/off switch are switched on by turning the control knob on the rear of the right headset muff from the fully counter-clockwise position (off position) clockwise beyond the switching-on point. If you a headset with rechargeable batterie switch-on, without is it connect at a WireCom system, the headset is automatically switched-off after 2 minutes. For speaking the microphone must be switched on (see section 3.6).

f. **Volume control (volume)**: On the rear of the right headset muff is a volume control knob to adjust the volume for the speaker. With this control knob you can adjust stepwise the speech volume. Turn the control knob clockwise to increase the volume and turn it counter-clockwise to decrease it. You can monitor your speech volume by hearing your own voice with constant volume via a side tone in the speakers of your headset independ at the adjust volume. Don't choose a level which is too high. Do not adjust the volume to a level higher than necessary. Excessive volumes over long periods can damage the hearing.

i. **End of operation** – Remove the headset and disconnect it from the WireCom System. When using headsets with combined on/off switch and volume control set the control knob fully counter-clockwise (off position). Clean the outside of the headset after use.

5.1 Battery warning

If the rechargeable battery has an undervoltage a low 3-beep tone sequence is audible in the headset approx. every 30 seconds.

After start the acoustic warning is the headset still approximately 30 minutes operational.

6. Safekeeping – storage

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

7. CT-WireCom-Digital Headset with signaling button

For putting into operation and operation of the CT-WireCom Digital Headset with signalling button (Fig. 3) for individual conditions the operating instructions in section 4 are largely valid.

PTT button for radio communication: At some headset versions the PTT button is only used for manual transmitter keying of a radio set which is connected to the cable-bound WireCom System via a radio interface. Instead of the PTT button on the headset muff can also used the external PTT buttons, e.g. the PTT button (Fig. 5) or the large, rectangular PTT button (Fig. 6).

Push the PTT button to key the transmitter of the radio. You can speak into the headset microphone while the PTT button is pushed down. After releasing the PTT button the headset is on standby/reception. When the radio receives messages, these messages are additionally fed into the WireCom System. For »normal« cable-bound communication the PTT button is without function.

⚠ WARNING

Do not connect the headset to a mains socket or to other sockets with lethally high voltage!

8. CT-WireCom-Digital Headset muffs for helmet fastening

The two headset muffs can be supplied without a head band for lateral fastening to a helmet. 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 head strap which is packed with each headset (see section 4, step »c«). If the headset is not required for the job in question, the two fastening arms together with the headset muffs are swung outwards and away from the helmet.

9. Maintenance – repair

9.1 Visual tests

Regularly examine the device and in particular the headset muffs, ear cuhions, cable and plugs 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 sections 9.4.1 at the latest after 6 months of usage. If necessary, also change any dirty foam covers in the headset muffs.

9.2 Cleaning

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.

9.3 Replacing the microphone's windshield

Pull the windshield (Fig. 4/d) off the microphone and replace it.

9.4 Replacing the ear cushions and foam covers

9.4.1 Headset with VK shells (Fig. 4)

Ear cushion *(Fig. 4/c):* Pull the ear cushion off the headset muff and replace it. Ensure that the new ear cushion fully engages into the headset muff.

Foam cover *(Fig. 4/a):*

⚠ WARNING

In some headset models the retaining ring is screwed together with the headset shell. These screws can only be removed with a Torx TX 7 screwdriver.

Remove the bolts between shell and retaining ring, if applicable (figure 4/e). Pull the ear cushion (Fig. 4/c) off the headset muff.

⚠ WARNING

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

Hold the headset muff with one hand. Push four fingers of the other hand inside between the foam cover (a) and the cover ring (b). With your fingers pull the cover 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 foam cover. When reassembling, ensure that the cover ring and the ear cushion engage fully into the headset muff.

⚠ CAUTION

If the retaining ring was fastened with screws before replacing the foam cover, then securit again with the two screws (e) after replacement. Use for it only the Torx TX 7 screwdriver.

10. Accessories and consumable parts

Designation and description	Article no.
Hygiene set consisting of: 2 pieces ear cushion, 2 pieces foam cover, 2 pieces windshield for microphone	5000500
Ear cushion, 2 pieces	5000501
Windshield for microphone, 10 pieces	5002201
Comfort set consisting of 25 pairs of cotton perspiration absorbers	4010025
Charger for for NiMH batteries 3,6 V/2300 mAh, charging time approximately 4 hours for 100...240 V AC 50/60 Hz	4006543

Certificate No. 01100004023 (ISO 9001)

Certificate No. 01220004023 (ATEX)

Deutschland und Internationaler Vertrieb

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