# ***Televox*** diving equipment




## User Manual

Models:

HDC-T1

HDC-T2

HDC-T3

Rev.: HDC-T 01062021

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NOTE!

In normal use as described in this User Manual, the product has no harmful effects on the environment.
For further environmental information, please see pages 3 and 14 of this User Manual.

NOTE!

A brief user guide is inside the cover of all HDC models.

## Introduction

The Televox dive radio has been specially developed for the professional diver.
Options include communication with 1, 2 or 3 divers simultaneously in 2-wire (simplex) or 4-wire (duplex) mode.
Volume controls for microphone and speaker can be adjusted separately for each diver.
There is a separate headset connection for the tender, which is also adjustable for both speaker and microphone.
If the headset connection is not used, the dive radio acts as a speaker and uses the built-in electret microphone.
There is also the option of connecting a Bluetooth headset for wireless communication between tender and diver(s).
This option is only available in the 4-wire version.
In the 2-wire version, you can only listen in between diver and tender using the Bluetooth headset.
To be able to speak to the diver, you must use the PTT button (Push to talk).
An audio input and audio output is available for recording calls or for connecting several dive radios together.
LEDs indicate the present status of the integral battery and provide necessary information during charging.



### Standard HDC - T series

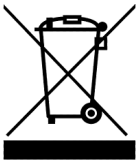
- Simplex call.
- "Open" duplex call.
- LED battery indicators.
- Electronic volume control.
- Speaker and electret microphone.
- Tender Bluetooth headset optional.
- Can be extended to max. 3 divers.
- Internal battery charger.
- Max. battery standby 24 hours.
- Separate headset optional.
- External audio output.

### Accessories HDC - T series

- Tender cabled headset.
- Tender Bluetooth headset.
- Tender hand-held microphone.

# SAFETY REGULATIONS

NOTE!



- Do not dispose of used equipment and/or batteries in domestic waste.
- For correct disposal of this product, please contact your local authority, your waste disposal services or the supplier from whom you purchased the product.

NOTE!

- Do not expose this equipment to rain, moisture, drips or splashes.
- Do not place items containing liquids on the equipment.
- Do not repair the equipment yourself.
  Maintenance must be performed by qualified personnel.

NOTE!



Too high a sound level can cause hearing damage.
Check the volume settings before turning on the equipment.

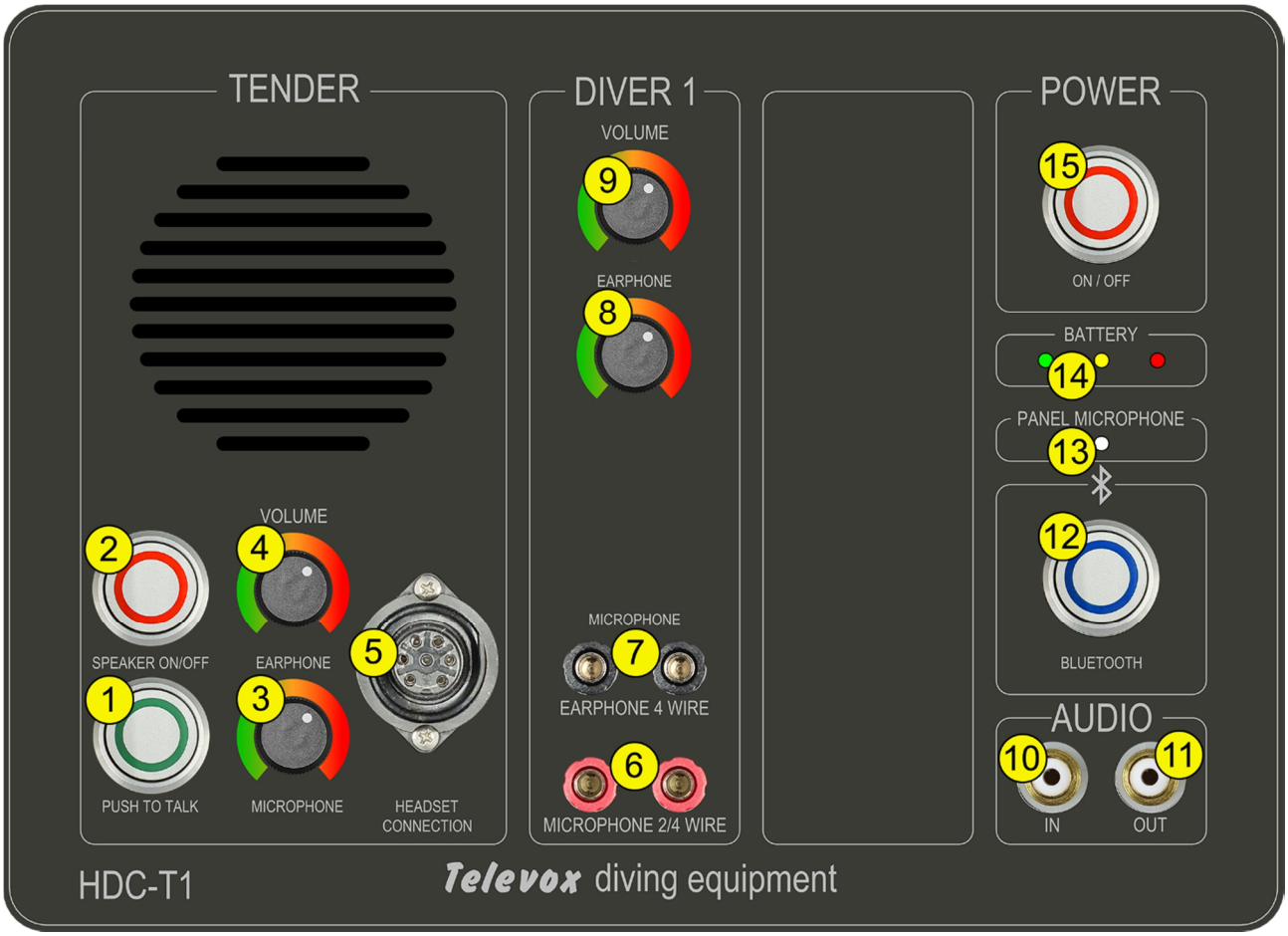
SAFETY

## SAFE CHARGING OF THE DIVE RADIO

NOTE!

- Do not use damaged power cables or damaged or loose plugs or sockets.
  There is a danger of electric shock or fire.
- Connect the power cable to a socket or extension cable with an earthed plug.
  If the power supply is not earthed, this can result in electric shock.
- Connect the power supply cable securely to the socket.
  Otherwise there may be a risk of fire.
- Do not remove the plug from the socket by pulling on the cable.
  If the cable is damaged, there is a risk of electric shock.
- Keep the power cable and socket clean so they do not become covered in dust.
  Failure to do this may result in fire.
- Do not over-bend the power cable and do not place heavy objects on the power cable.
  It is extremely important to keep the power cable out of the reach of small children and animals.
  If the cable is damaged, there is a risk of electric shock and/or fire.

# HDC-T1




1. "PUSH TO TALK".
   Pressing this switch allows you to speak to the diver.
2. "SPEAKER ON/OFF".
   Switches the panel speaker on and off; if the LED indicator is lit, the panel speaker is on.
3. "VOLUME MICROPHONE".
   This button allows you to adjust the microphone sensitivity from the tender to the diver.
4. "VOLUME EARPHONE".
   To adjust the tender headset volume, turn to the left to lower the volume and to the right to raise the volume.
5. "HEADSET CONNECTION".
   Using this connection allows connection of a headset or hand-held microphone with PTT button (push to talk).
6. "MICROPHONE 2/4 WIRE".
   In 4-wire mode, this connection is used for the diver's microphone.

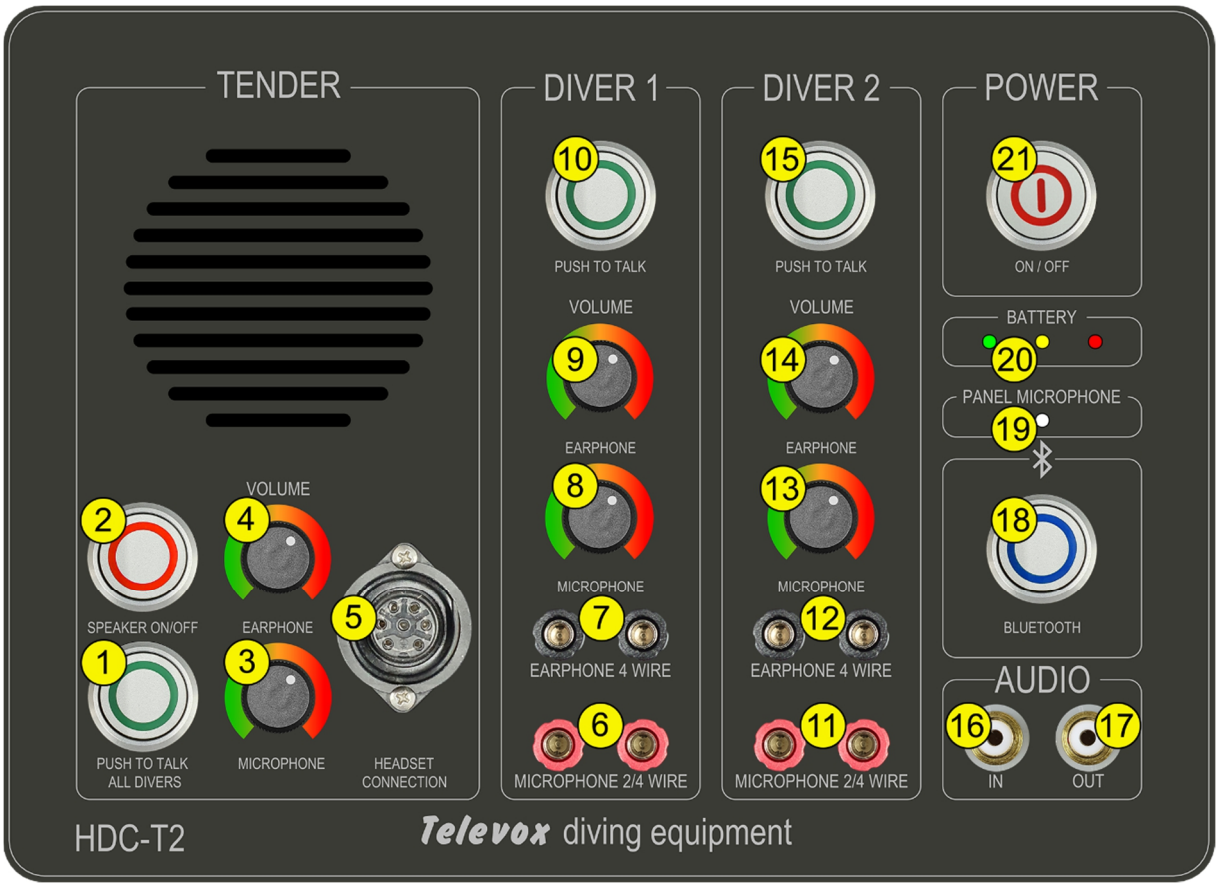
In 2-wire mode, both the diver's headset speakers and microphone are connected.

7. "EARPHONE 4 WIRE".
   The diver's headset speakers are connected here only when using 4-wire mode.
8. "VOLUME MICROPHONE".
   This controls the diver's microphone sensitivity.
9. "VOLUME EARPHONES".
   To adjust the volume of diver 1, turn to the left to lower the volume and to the right to raise the volume.
10. "AUDIO IN".
    This audio input allows you to connect a 0 dB audio source, which the diver can hear.
11. "AUDIO OUT".
    The audio output can be used for all audio communication with external receiver equipment.
12. "BLUETOOTH".
    To use a Bluetooth headset it must first be paired to the dive radio. Put the Bluetooth headset in pairing mode, then press the Bluetooth button and hold it down for 4 seconds. The blue LED will now flash slowly. When the headset connects, the LED stops flashing and remains illuminated.
    Once this procedure has been completed, pairing will occur automatically next time this function is activated.
    *NOTE: If the Bluetooth connection is broken, the blue LED will flash rapidly.*
13. "PANEL MICROPHONE".
    Panel microphone.
14. "BATTERY".

| | |
|---|---|
| All LEDs flash simultaneously. | No battery connected. |
| All LEDs light in turn (cycling light) | Charger connected. |
| Only the red LED flashes. | Battery < 10% |
| Red LED lit continuously. | Battery < 40% |
| Red and yellow LEDs lit continuously. | Battery < 70% |
| All LEDs lit continuously. | Battery > 70% |

15. "POWER ON/OFF".
    Hold this button down for +/- 1 sec to switch the equipment on or off.
    *If no buttons are pressed for 2 hours, the dive radio will switch off automatically.*

# HDC-T2




1. "PUSH TO TALK ALL DIVERS".
   Pressing this switch enables speaking to all divers simultaneously.
2. "SPEAKER ON/OFF".
   Switches the panel speaker on and off; if the LED indicator is lit, the panel speaker is on.
3. "VOLUME MICROPHONE".
   This button allows you to adjust the microphone sensitivity from the tender to the diver(s)
4. "VOLUME EARPHONE".
   To adjust the tender headset volume, turn to the left to lower the volume and to the right to raise the volume.
5. "HEADSET CONNECTION".
   Using this connection allows connection of a headset or hand-held microphone with PTT button (push to talk).

6. “MICROPHONE 2/4 WIRE”.
   In 4-wire mode, this connection is used for the microphone of diver 1.
   In 2-wire mode, both headset speakers and the microphone of diver 1 are connected.
7. “EARPHONE 4 WIRE”.
   The headset speakers of diver 1 are connected here only when using 4-wire mode.
8. “VOLUME MICROPHONE”.
   This controls the microphone sensitivity for diver 1.
9. “VOLUME EARPHONES”.
   To adjust the volume of diver 1, turn to the left to lower the volume and to the right to raise the volume.
10. “PUSH TO TALK”.
    By holding this button down, you can speak individually with diver 1.
11. “MICROPHONE 2/4 WIRE”.
    In 4-wire mode, this connection is used for the microphone of diver 2.
    In 2-wire mode, both headset speakers and the microphone of diver 2 are connected.
12. “EARPHONE 4 WIRE”.
    The headset speakers of diver 2 are connected here only when using 4-wire mode.
13. “VOLUME MICROPHONE”.
    This controls the microphone sensitivity for diver 2.
14. “VOLUME EARPHONES”.
    To adjust the volume of diver 2, turn to the left to lower the volume and to the right to raise the volume.
15. “PUSH TO TALK”.
    By holding this button down, you can speak individually with diver 2.
16. “AUDIO IN”.
    This audio input allows you to connect a 0 dB audio source, which all divers can hear.
17. “AUDIO OUT”.
    The audio output can be used for all audio communication with external receiver equipment.
18. “BLUETOOTH”.
    To use a Bluetooth headset it must first be paired to the dive radio. Put the Bluetooth headset in pairing mode, then press the Bluetooth button and hold it down for 4 seconds. The blue LED will now flash slowly.
    When the headset connects, the LED stops flashing and remains illuminated.
    Once this procedure has been completed, pairing will occur automatically next time this function is activated.



*NOTE: If the Bluetooth connection is broken, the blue LED will flash rapidly.*

19. “PANEL MICROPHONE”.

Panel microphone.

20. “BATTERY”.

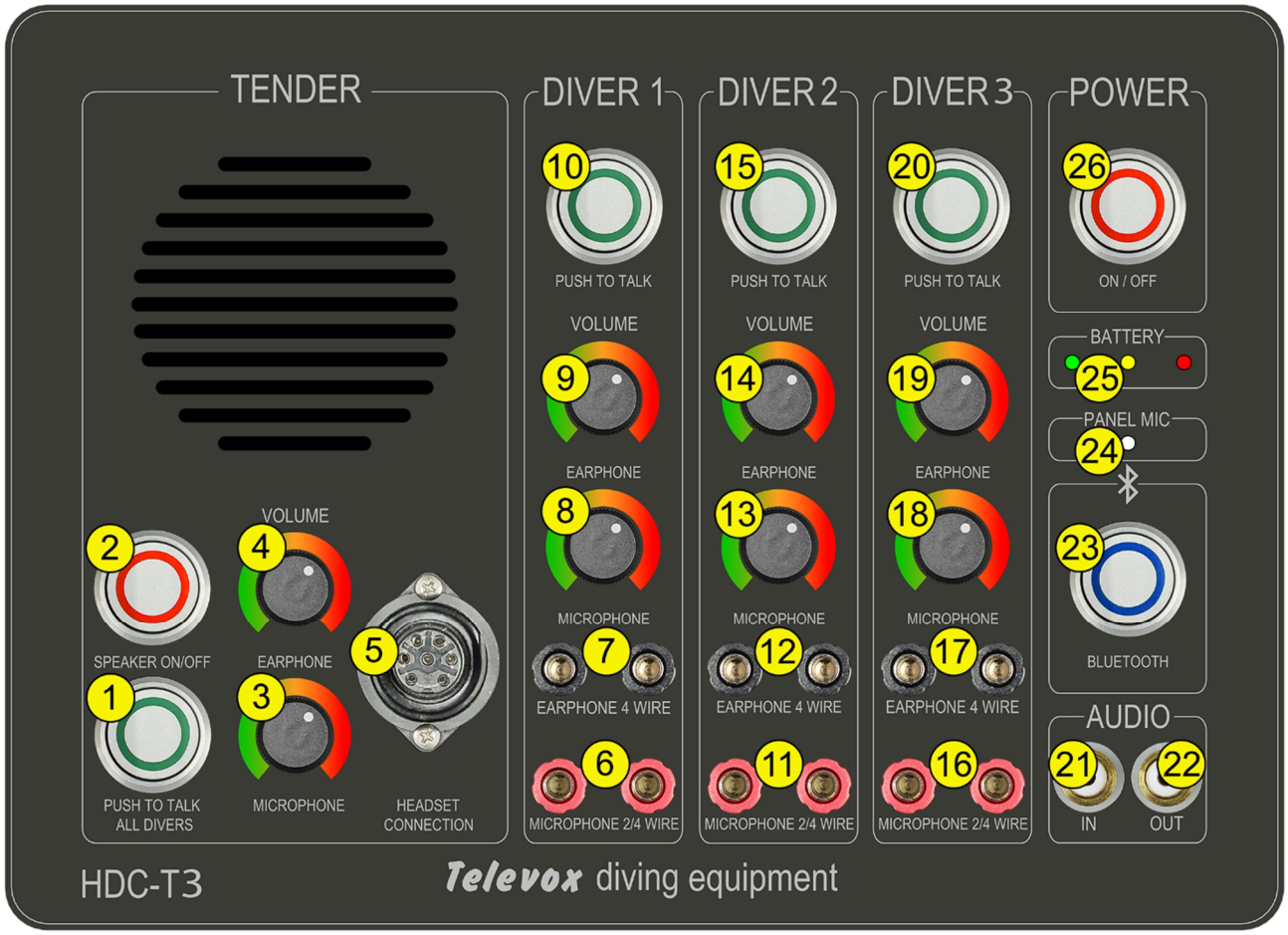
| | |
|---|---|
| All LEDs flash simultaneously. | No battery connected. |
| All LEDs light in turn (cycling light) | Charger connected. |
| Only the red LED flashes. | Battery < 10% |
| Red LED lit continuously. | Battery < 40% |
| Red and yellow LEDs lit continuously. | Battery < 70% |
| All LEDs lit continuously. | Battery > 70% |

21. “POWER ON/OFF”.

Hold this button down for +/- 1 sec to switch the equipment on or off.

*If no buttons are pressed for 2 hours, the dive radio will switch off automatically.*

# HDC-T3




1. "PUSH TO TALK ALL DIVERS".
   Pressing this switch enables speaking to all divers simultaneously.
2. "SPEAKER ON/OFF".
   Switches the panel speaker on and off; if the LED indicator is lit, the panel speaker is on.
3. "VOLUME MICROPHONE".
   This knob allows you to adjust the microphone sensitivity of the dive radio to the diver(s)
4. "VOLUME EARPHONE"
   To adjust the tender headset volume, turn to the left to lower volume and to the right to raise volume.
5. "HEADSET CONNECTION".
   Using this connection allows connection of a headset or hand-held microphone with PTT button (push to talk).

6. “MICROPHONE 2/4 WIRE”.
   In 4-wire mode, this connection is used for the microphone of diver 1.
   In 2-wire mode, both headset speakers and the microphone of diver 1 are connected.
7. “EARPHONE 4 WIRE”.
   The headset speakers of diver 1 are connected here only when using 4-wire mode.
8. “VOLUME MICROPHONE”.
   This controls the microphone sensitivity for diver 1.
9. “VOLUME EARPHONES”.
   To adjust the volume of diver 1, turn to the left to lower the volume and to the right to raise the volume.
10. “PUSH TO TALK”.
    By holding this button down, you can speak individually with diver 1.
11. “MICROPHONE 2/4 WIRE”.
    In 4-wire mode, this connection is used for the microphone of diver 2.
    In 2-wire mode, both headset speakers and the microphone of diver 2 are connected.
12. “EARPHONE 4 WIRE”.
    The headset speakers of diver 2 are connected here only when using 4-wire mode.
13. “VOLUME MICROPHONE”.
    This controls the microphone sensitivity for diver 2.
14. “VOLUME EARPHONES”.
    To adjust the volume of diver 2, turn to the left to lower the volume and to the right to raise the volume.
15. “PUSH TO TALK”.
    By holding this button down, you can speak individually with diver 2.
16. “MICROPHONE 2/4 WIRE”.
    In 4-wire mode, this connection is used for the microphone of diver 3.
    In 2-wire mode, both headset speakers and the microphone of diver 3 are connected.
17. “EARPHONE 4 WIRE”.
    The headset speakers of diver 3 are connected here only when using 4-wire mode.
18. “VOLUME MICROPHONE”.
    This controls the microphone sensitivity for diver 3.
19. “VOLUME EARPHONES”.
    To adjust the volume of diver 3, turn to the left to lower the volume and to the right to raise the volume.
20. “PUSH TO TALK”.
    By holding this button down, you can speak individually with diver 3.

21. "AUDIO IN".
    This audio input allows you to connect a 0 dB audio source, which all divers can hear.
22. "AUDIO OUT".
    The audio output can be used for all audio communication with external receiver equipment.
23. "BLUETOOTH".
    To use a Bluetooth headset it must first be paired to the dive radio. Put the Bluetooth headset in pairing mode, then press the Bluetooth button and hold it down for 4 seconds. The blue LED will now flash slowly. When the headset connects, the LED stops flashing and remains illuminated.
    Once this procedure has been completed, pairing will occur automatically next time this function is activated.
    *NOTE: If the Bluetooth connection is broken, the blue LED will flash rapidly.*
24. "PANEL MICROPHONE".
    Panel microphone.
25. "BATTERY".

| | |
|---|---|
| All LEDs flash simultaneously. | No battery connected. |
| All LEDs light in turn (cycling light) | Charger connected. |
| Only the red LED flashes. | Battery < 10% |
| Red LED lit continuously. | Battery < 40% |
| Red and yellow LEDs lit continuously. | Battery < 70% |
| All LEDs lit continuously. | Battery > 70% |

26. "POWER ON/OFF".
    Hold this button down for +/- 1 sec to switch the equipment on or off.
    *If no buttons are pressed for 2 hours, the dive radio will switch off automatically.*

# SPECIFICATIONS



Electrical

| | |
|---|---|
| Minimum rest current | 0.25 Amp |
| Output impedance | 4 Ohm |
| Mains voltage connection all HDC models | 230 VAC - 50/60 HZ. |
| USB connection | For charging Bluetooth headset. |
| Sensitivity (input) | 600 mV. |
| Output power | 20 Watt audio at 4 ohm. |
| Bluetooth | Bluetooth 3.0 compatibility |
| Max received power | 30 Watt |

Battery life

| | |
|---|---|
| Model HDC T1 | 8 hours |
| Model HDC T2 | 8 hours |
| Model HDC T3 | 8 hours |
| Battery type | 12 VDC - 7Ah.<br>Lead battery<br>Dimensions: 151 x 65 x 97.5 mm |



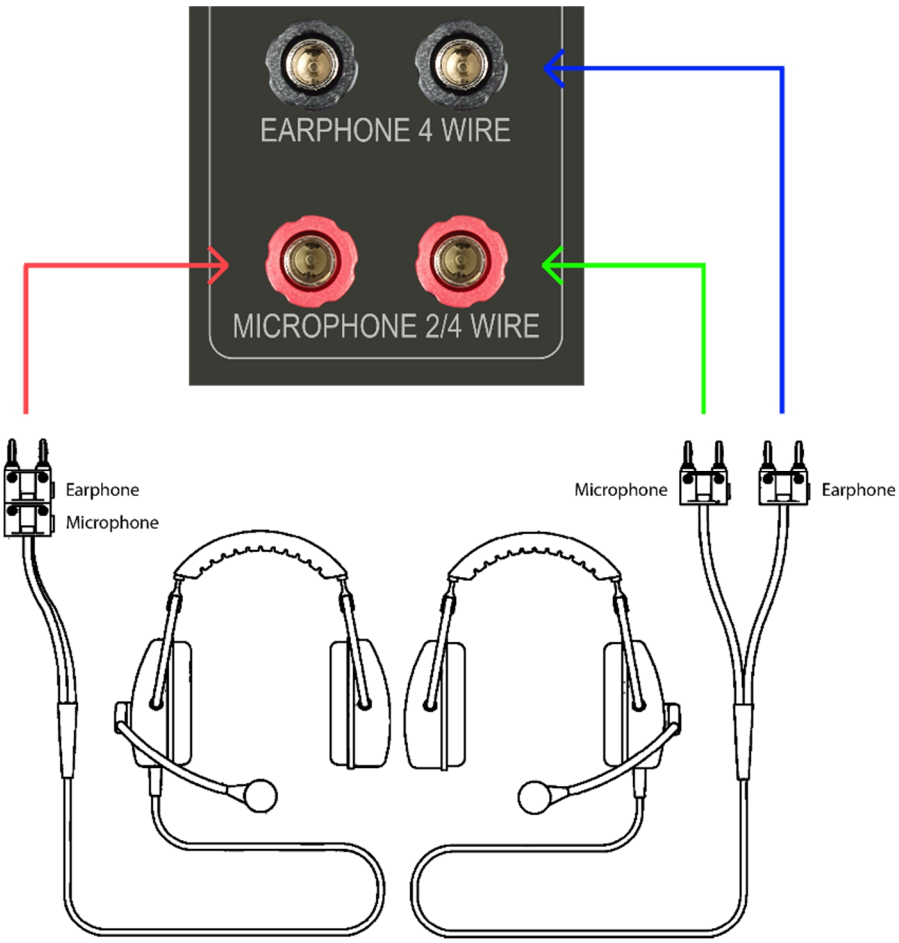

Mechanical

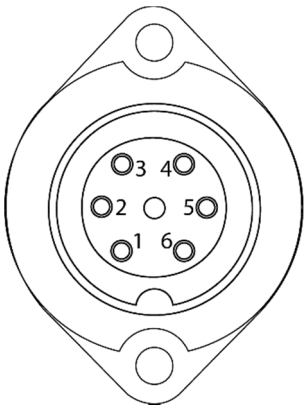
| | |
|---|---|
| Panel | Black aluminium |
| Case | Impact-resistant plastic |
| Housing colour | Black |
| External dimensions | |
| • Length | 30.5 cm. |
| • Width | 27.0 cm. |
| • Height | 19.4 cm. |

Serial number

The serial number of this system is marked on the white sticker on the back of the system (see page 17).

# CONNECTION DATA




Connector 693 series, male cable mounting connector, 7-pin plug (09.4228.00.07)

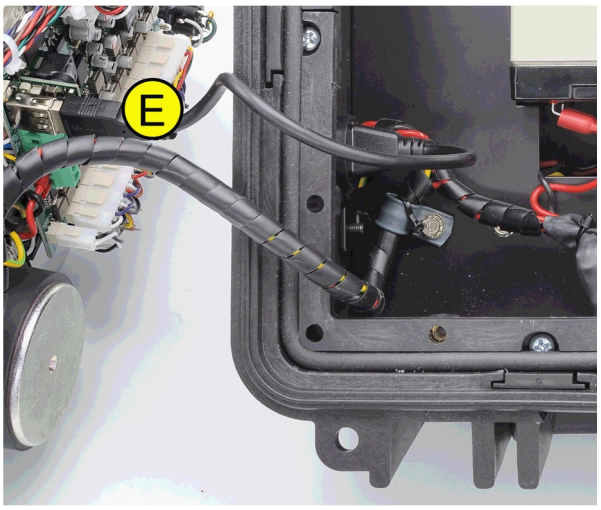
| | |
|---|---|
| 1-2 | = Microphone |
| 3-4 | = Earphones |
| 5 | = PTT switch |
| 6 | = GND |

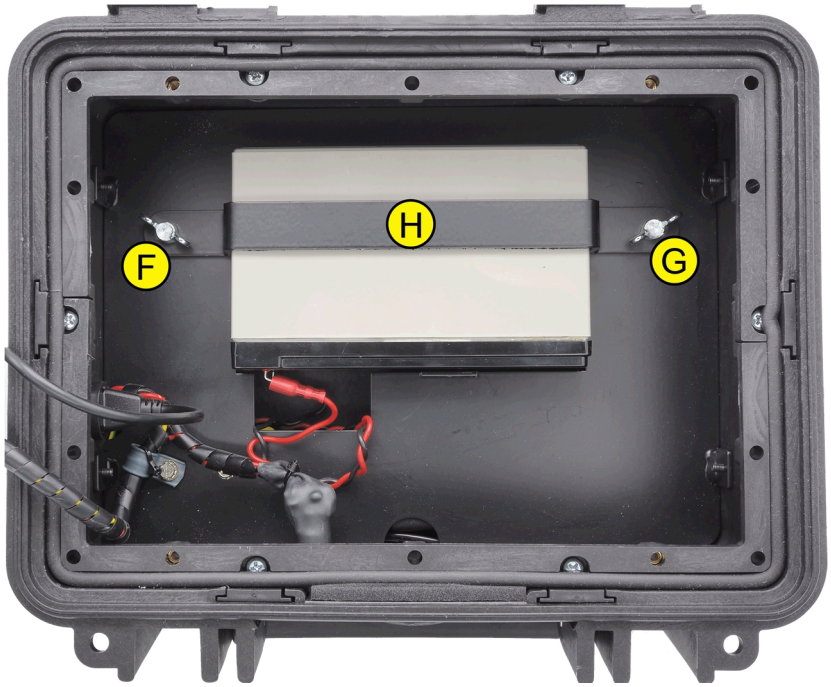
## REPLACING THE BATTERY




*NOTE:*

Switch off the equipment and ensure it is disconnected from the mains power supply.
Remove panel screws **A**, **B**, **C** and **D**.
Lift the panel and remove USB plug **E** from the printed circuit board, and place the panel to the left of the case.





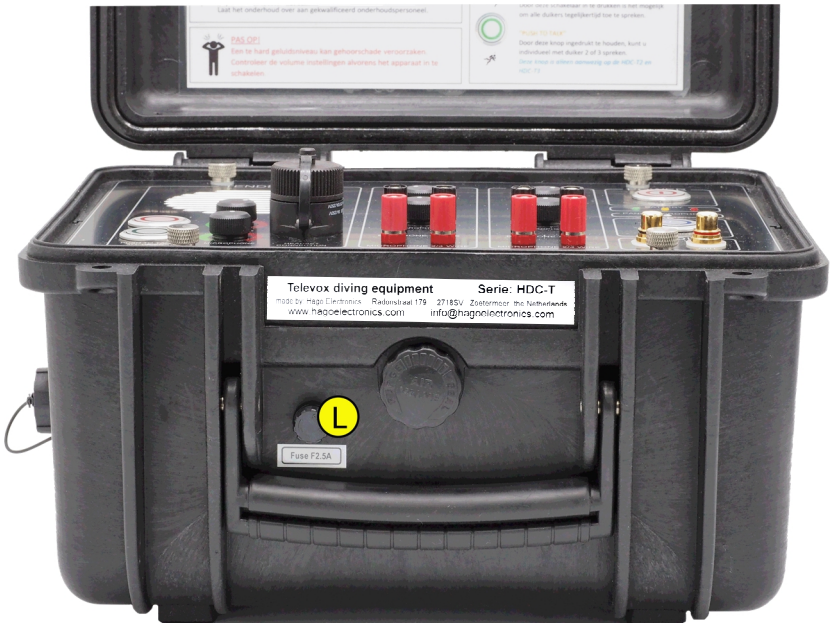

Remove fixing screws **F** and **G**.
Remove bracket fixings **H**.
Carefully lift the battery out of the base plate.
Disconnect the battery connecting wires.

Fit the new battery in the reverse sequence.

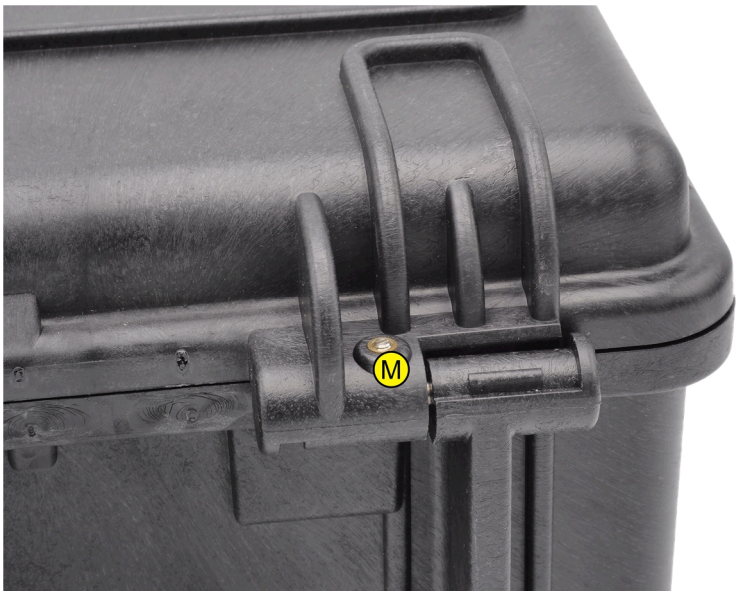
## EXTERIOR




I - Fuse F2.0A for mains voltage connections.
J - Mains voltage connection 230 VAC - 50/60 HZ.
K - USB connection for charging the Bluetooth headset.
L - Fuse F2.5 for the battery.



## REMOVING THE COVER




Undo screw **M**.
Open the cover and slide it to the side off the hinges.




The serial number **N** is marked on the back of the case.

## PROBLEM SOLVING.

| Problem | Cause | Solution |
|---|---|---|
| The dive radio does not turn on. | The "Power" button was not held down long enough. | Hold the "Power" button down for at least 1 second. The "Power" LED lights. |
| The dive radio does not turn off. | The "Power" button was not held down long enough. | Hold the "Power" button down for at least 1 second. The "Power" LED turns off. |
| The dive radio does not turn on. Even if I hold the "Power" button down for a long time. | The dive radio does not turn on. Even if I hold the "Power" button down for a long time. | Check fuse (L, page 16) and replace if necessary. If the battery is faulty, this must be replaced as described on page 15. |
| Battery does not charge. | No mains voltage present, or fuse (I, page 16) is faulty. | Check that there is voltage (230 Volt) at the wall socket. Check fuse (I, page 16) and replace if necessary. |
| The dive radio does nothing although mains voltage is present, the fuses are intact and the batteries in order. | There is a technical problem which cannot be solved by the customer. | Send the product to the supplier. They will repair the dive radio. NOTE: Do not make any attempts to repair the product. This can seriously damage the product. |
| No sound from the "Tender" speaker. | The "Speaker On/Off" button is not pressed and the red LED on the button is not lit. | Press the "Speaker On/Off " button. The red LED lights and a signal from the divers can be heard. |
| The divers cannot hear the "Tender". A fixed headset is connected with a "2-wire" diver connection. | With a "2-wire" connection, there is no duplex mode. Only simplex is possible. | If a "2-wire" connection is used, you must always use the "Push to talk all divers" or the individual "Push to talk" button to speak to the diver. |
| I cannot connect my headset using the "Bluetooth" button. | The headset is not in pairing mode. | Read the user instructions for the headset used. It is important that both Bluetooth devices try to pair at the same time in order to create a connection. The blue LED flashes slowly during pairing mode. If it flashes quickly, there is no connection. |
| I hear a buzzing when I connect the dive radio to the power. | The dive radio may not be connected to an earthed wall socket. | Push the connector into an earthed wall socket. |

## SAFETY RISKS

 NOTE!

1- In normal use as described in this User Manual and in the short User Guide in the system cover, there are no risks associated with using the system.
2- Always follow local safety regulations!
3- In case of doubt, always contact your supplier.
4- If your system is not functioning correctly, please refer to the "Problem solving" section in this user manual.
5- If the "Problem solving" section does not help, **NEVER** repair the unit yourself but contact your supplier.

HAGO

Electronics

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