

Albrecht.[®]

BT 2000



**Hands-free system
for corded regular telephones**



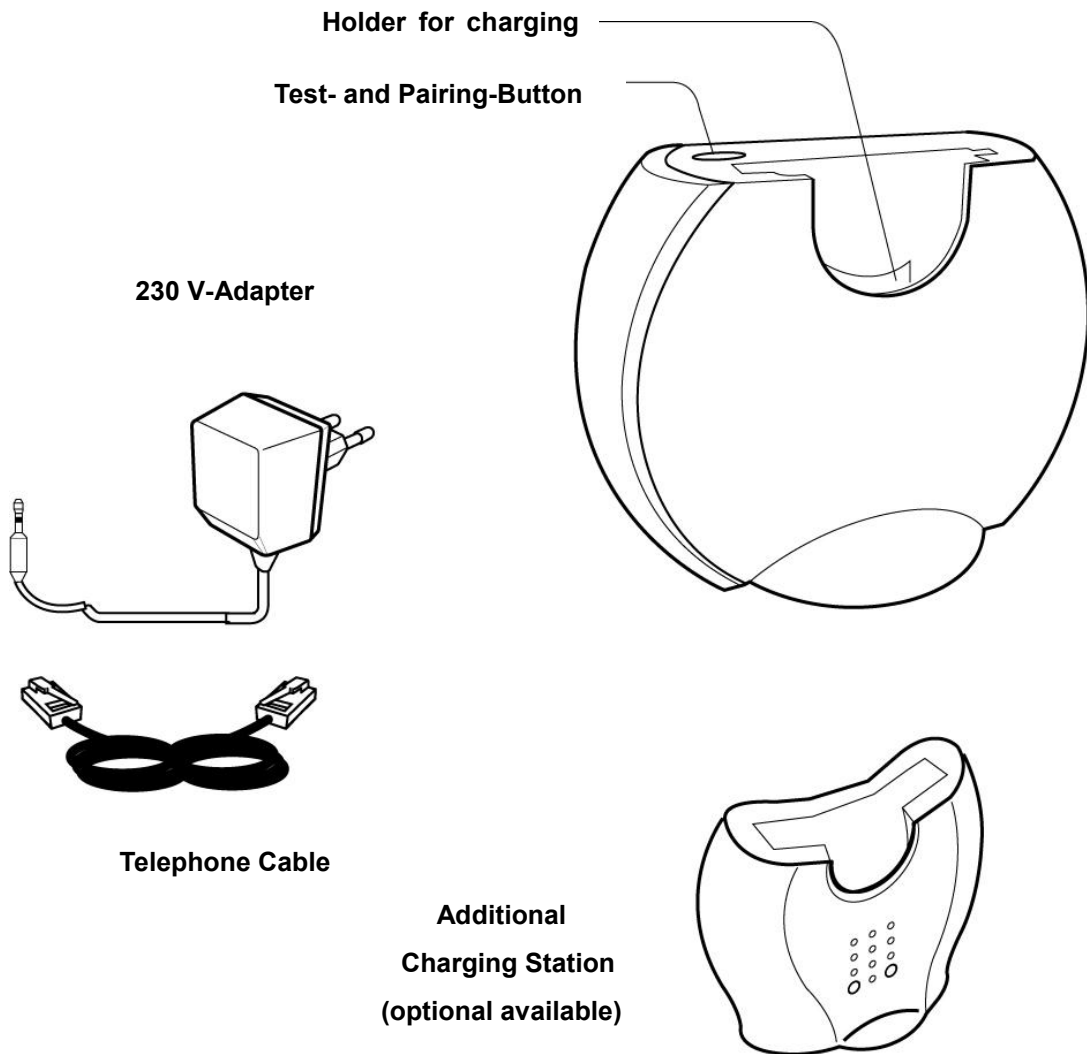
**Operating manual
ALAN Electronics GmbH**

General information BT 2000

The headset BT 2000 is a comfortably to wear hands-free headset for regular telephones (i.e. office telephone systems). The new Bluetooth™ technology gives you the opportunity for reliable and bug-free wireless transmission to your existing telephone. The system consists of a headset and an audio gateway that ensures connection to the presently used telephone handset. This audio gateway can be used as charging station and as well for storing.

Package includes:

- **Headset** with integrated Bluetooth™ technology and Lithium-Ion rechargeable batteries.
- **Audio-Gateway with charging station** for storing, charging of headset and as connection to your existing telephone.
- **Wall charger** 230 V for audio-gateway and for charging.
- **Neck strap** for headset.
- Plug-in **telephone cable** to be installed between audio gateway and telephone.



Hardware requirements for existing telephone and safety advice:

Almost all wired telephones with a conventional handset and a plug-in handset cable can be connected. Today nearly all modern home- and office telephones are equipped with a plug-in receiver cable (4 pin "Western" sockets). The BT 2000 only replaces the microphone and the earpiece of your telephone handset so that you can move around within a range of several meters of your work place without any cables. You can use the BT 2000 at analogue as well as ISDN- or proprietary telephone systems.

The following telephones can not be connected:

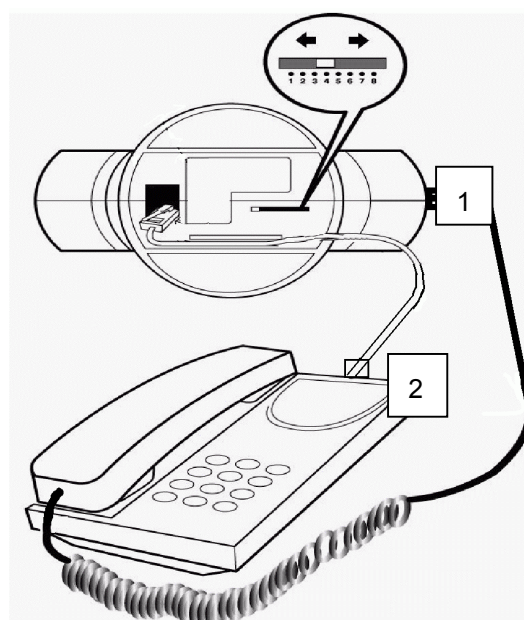
- Designer telephones where **additional** electronic devices (i. e. buttons, displays) are installed in the handset
- Telephones with carbon, dynamic or piezoceramic microphones (mostly older models) which are not yet equipped with state-of-the art electret microphones
- Telephones with special handsets

In case of doubt please contact the company that services your telephone system. Please use only the supplied accessories. Operate the audio gateway only in connection with the specially designed wall charger, other chargers may damage the set or cause undesired effects on the telephone line.
Never open the headset or try to change or even open the lithium battery by yourself!

Hint: The headset can also be connected with other appliances equipped with Bluetooth™ technology such as mobile phones and future DECT-telephone systems with Bluetooth™ technology. In this case the audio gateway will only be used to plug in the headset for charging, the handset cable connectors will remain unused. Pairing has to be done according to the manuals of the respective manufacturer. Observe the relevant chapter at the end of this manual.

Connecting the audio-gateway to your existing telephone

- Unplug the cable of the handset you presently use and insert it in the lateral socket of the audio gateway (1).
- Plug in one end of the supplied straight telephone cable in the now free socket of your hand receiver, the other end plug in the free socket at the bottom of your audio gateway. You can lead the cable outside via the 2 slots in the plastic. (2)
- Connect the DC plug of the wall charger with the socket marked „DC 5V“ at the right side

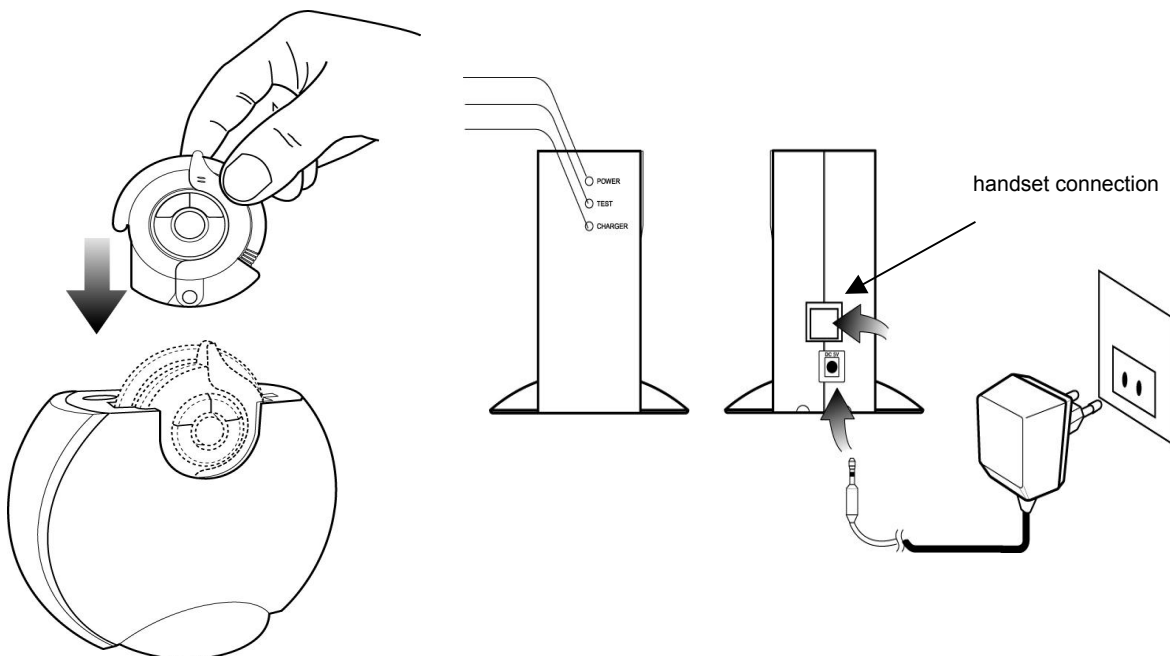


of your audio-gateway. Plug the wall charger in a 230V socket.

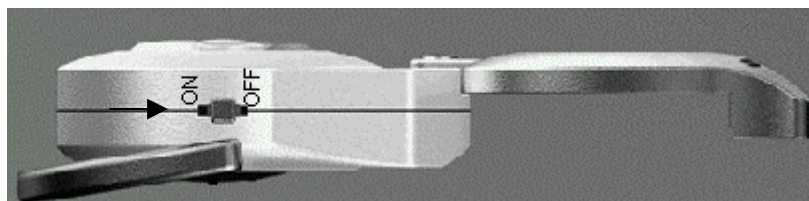
- Insert the Bluetooth™ headset in the audio gateway as shown below. The charging light at the audio gateway will light up.
- Lift up your telephone handset. You should hear the normal dial tone and be able to use your telephone (with the original handset) as usual. In case you don't hear anything, check the newly plugged-in connections and check out the other positions of the slide switch at the bottom of the audio gateway. One of the 8 positions will give you your desired signal. Leave the switch in this position. The switch is needed to cover the variety of wirings of wired telephones of the different brands. In most cases the preselected position (1) will be the right one.

Charging the BT 2000 in the charging cradle of the audio gateway

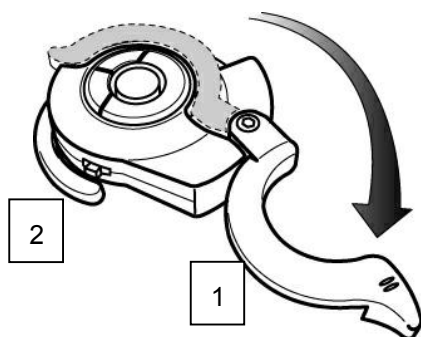
Charging starts the moment the headset is being inserted in the audio gateway. It takes approx. 1.5 to 2.5 hours to fully charge a completely empty BT 2000. The left indicator light gives you information of the state of charging. (**Orange = charging, green = battery full**). A **red** light indicates either a defect of the battery or that the headset is not in the correct position in the audio gateway.



- You can reduce the charging time by switching **off** the Bluetooth™ headset before charging (in direction of the arrow).

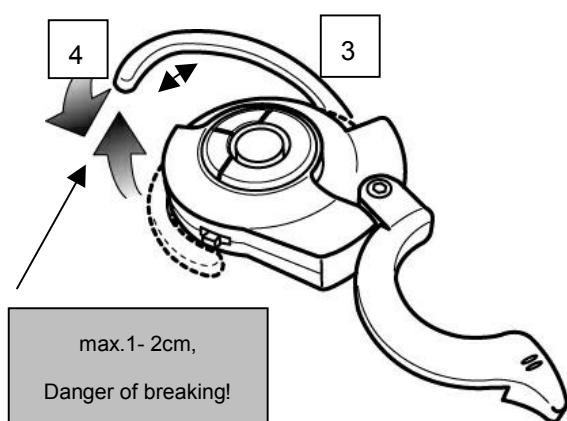


Important advice to prepare the headset before wearing on your ear



The headset is being delivered folded up. The same position is used for charging in the charging station or for storing. To wear it on your ear please turn the microphone arm (1) as indicated downwards. The earhook (2) is flexible at the end so that it can be adjusted to the individual ear shape.

To wear it on your ear fold the earhook (3) **backwards** for no more than 1 or 2 cm.



The earhook (3) can be adjusted in the rear part (4) so that it fits perfectly to your ear.

The headset is simply hung up on the **right ear** (5). It will fit comfortably, if you adjust the flexible part of the earhook (4, 5) to your ear's shape.

Hint: Please refrain from folding out the earmount any further than necessary. There should only be enough space between the headset and your ear to ensure a comfortable position. Under no circumstances should the earmount be folded like the microphone!

Putting your Bluetooth™ headset into operation

After having charged your headset for a while it is now ready for switching it on for the first time. Push the slide switch at your headset in the position "ON".

You now have the choice whether you use your „old“ handheld receiver or your Bluetooth™ headset. For making a telephone call you still have to always lift up your telephone receiver. Dialling as well will still always be done with your „old“ telephone. If you want to switch over to your Bluetooth™ headset, place the receiver next to your telephone.

Accept incoming calls and adjust receiving volume

- By once pressing the talk button ■ at your Bluetooth™ headset you can take over a call with your wireless headset. Switch-over will always take a short moment. During switch-over you will hear a short melody.
- Adjust the earphone volume by pressing the volume buttons ◀ or ▶ of the headset according to your wishes. You may also feel the volume keys with your fingers: The key with one dot reduces the volume, while the key with 2 dots will increase it. This adjustment will have no effect on the volume of the microphone! This volume is automatically adjusted by the volume of our own voice and the integrated DSP (digital signal processor).
- After finishing your call do not forget to put back your handheld receiver, otherwise the line might still be occupied thus creating unnecessary costs!

Important advice for transmission range:

The Bluetooth™ headset has an average range of about 10m. This range can be influenced by your surroundings. Electronic appliances close to your telephone may reduce range whereas a free area may even increase it.

In case your Bluetooth™ headset has lost connection to your telephone just press the center button ■ at your headset to reconnect. In case this does not work, just switch your headset off for a short moment and on again before pressing the center button ■ at your headset.

Pairing between Bluetooth™ Headset and Audio-Gateway

According to the international Bluetooth™ standards and agreements your headset is able to establish a reliable and safe audio transmission to a lot of different devices using the Bluetooth™ technology.

Your headset comes factory programmed („paired“) and ready for use with the individual audio-gateway supplied together as a set. If you want to connect the headset with other Bluetooth™ devices (e.g. mobile phone), or if you have already used your headset with another device, you must repeat the pairing procedure before reconnection to your audio-gateway.

In such a pairing procedure, headset and partner device must exchange informations and security data, before they can mutually acknowledge themselves as partner units. This procedure, which includes a reset, is defined as „*pairing*“. Important: Only paired devices can communicate with each other, there is no communication possible with a third device at the same time. For pairing with other devices please read the last chapter of this manual.

Troubleshooting

Under certain circumstances it cannot be excluded totally that current supply interruptions or interferences may perhaps have influence on the correct functions of the set. In case of a malfunction you may re-establish the connection by this simple test procedure in exactly the following sequence:

- Switch off the audio-gateway by unplugging the DC power cable from audio-gateway
- Switch off Bluetooth™ headset, too
- Insert power cable again into audio-gateway
- Switch on Bluetooth™ headset again

After a short moment both units should be paired again together.

If the above described method does not help, a „**general reset**“ back to the factory default settings may help. This general reset is also necessary in all cases, where the headset has been used in connection with other Bluetooth™ devices and shall now be re-connected™ to your individual audio-gateway. The general reset procedure includes pairing and resetting **both** partner units (headset **and** audio-gateway), otherwise they cannot establish a secure transmission system.

Starting general reset

Please follow the instructions in exactly the described sequence!

- (1) Switch your headset **OFF** with power switch (slide switch).
- (2) Switch headset **ON** again
- (3) Press all **3 keys at headset simultaneously at the same time** and keep them pressed for about **3 seconds**. Hold headset during that procedure close to your ears. You will hear a short melody marking a successful reset. If you do not hear the melody within 1-2 seconds, the reset was not successful and you should repeat steps (1) to (3).
- Release all buttons.
- Switch the headset 1 x **OFF** and **ON** again at the slide switch (power off-on).
- Place the headset close to the audio gateway.
- Press and hold the **TEST/PAIRING** button on top side of the **audio-gateway** and keep button pressed for about 6 seconds (during this time the test LED will flash)
- Release button
- Disconnect the 5 V DC power supply plug from the audio-gateway.
- Wait for about 1 second and insert the DC plug again into audio-gateway.
- Place the headset into the charging cradle, wait and observe the test-LED. The LED will flash for some seconds until the pairing process will be finished.
- After pairing process is completed, you will hear a melody from the plugged-in headset. Now you may take out the headset and use it.

After this procedure audio-gateway und Bluetooth™ headset are paired. Privacy of your phone conversation is ensured by the digital encryption and the Bluetooth™ transmission protocol between audio-gateway and headset. If the pairing process has not been successful, you may have made a mistake or perhaps you have performed the steps in the wrong sequence.

In that case start the procedure once more again from the beginning.

Pairing-procedure with a different partner unit

You only need to follow the instructions in this chapter, if you intend to use the headset together with other devices with Bluetooth™ technology, like a GSM mobile phone etc instead of the audio-gateway. In that case you must prepare the headset so, that it will now be combined („paired“) with another device. As first step you initialize a **reset** of the headset. Switch the headset **off** and **on** again, press and keep **all 3 buttons** pressed simultaneously for about 3 seconds. At the end of this time you will hear a **melody** as confirmation for a successful reset. You can release the buttons. Now switch the headset for a short moment off and on again. The headset is now ready for pairing with other Bluetooth™ devices.

The following procedure depends on the other partner device and can be different from model to model.

Please follow the instructions of the user manual and start the pairing process. In case of GSM mobile phones the phone will search for active Bluetooth™ devices and will detect the headset as „ **BT 1000 by Albrecht** “. Mobile phone and Bluetooth™ Headset exchange their data, which contain individual serial numbers and other safety codes, to enable a safe audio connection between the 2 new partners. During the pairing process the menu will ask for a **PIN** code of the Bluetooth™ headset. Please use PIN Code

1234

unless your BT 2000 comes with a special registration card. (in that case please use the PIN code on the card)

The manufacturers of Bluetooth™ equipments are updating their instructions frequently. Please make sure that you use their latest instructions only. You may download the instructions from the internet or ask your phone distributor.

Update hints: On our homepage you can find further information concerning

- Albrecht Bluetooth™ products
- Revised user manuals
- Technical documents
- Declaration of conformity
- List of countries with special regulations

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Technical Data

Wireless transmission system	Spread-Spectrum Bluetooth™ Standard 1.1, Class 2
Frequency range	2402 to 2480 MHz
Channels	79 with 1 Mhz bandwidth per channel
Radiated transmission power (ERP)	max. + 4 dBm (2.5 mW), with automatic power control
Modulation	digital encryption, FHSS, GMSK, 1 Mbit/s
Channel occupancy system	frequency hopping 625 µs time slot
Maximum communication distance	approx. 10 m
Operating time	switched on (StandBy) max. appr. 90 hours talk time max. appr. 6 hours
Audio-processing	PCM Codec, ear protection and level control via chipset DSP, 16 steps volume setting
Headset power supply	high power lithium polymere battery 200/300 mAh
Energy saving circuit	automatic 1:72 in longer standby periods
Telephone interface	audio gateway with smart charger for bluetooth headset, plug-in „Western“ connectors for standard headset cord
Weight	headset (without neck strap) 29 g
Applied European Standards	EN 300 328-2 V 1.2.1; EN 301 489-01 V 1.3.1 EN 301 489-17 V 1.1.1 ; EN 60950 + A1, A2, A3, A4, A11

CE Marking & Conformity Declaration



This unit fulfills the above mentioned European Standards and is marked with CE and the "notified body's" registration number 0197 (TÜV Rheinland). You will also find the "alert sign" for Class 2 equipment according to R&TTE directive, because Bluetooth applications are free for use within EU, but not yet declared to be free usable in all other european countries. Our latest issue of Conformity Declaration and product documentation can be downloaded from our service homepage under <http://www.alan-albrecht.info>

Safety notes



While the transmitting power of Bluetooth™ Systems is far below (up to a factor of 1000) the radiated power levels of hand held GSM phones and is generally not regarded as dangerous, interference effects between radio transmitters and other electronic devices cannot be excluded in sensitive environments, like medical centers, and airplanes. Operators may request that Bluetooth™ devices must remain switched off in such areas.