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### GENERAL

**Q. Will UCLEAR work with my helmet?**

A. You can install UCLEAR on just about any helmet – open face, modular or 1/2 face helmets – as long, as long there is a spot for the speakers. You should never modify your helmet. In the case of fuller helmets, there should be a cutout, and in the case of half helmets, we offer an insert that wraps around the straps. The HBC230 is designed to work with a bicycle helmet.

Whatever your helmet type, it's through Adaptive Beam Forming technology that UCLEAR is able to suppress environment noise such as wind, engine and street noise, while picking up on your voice.

**Q. Will UCLEAR work with my phone?**

A. UCLEAR units will work with most Bluetooth capable phones or devices. UCLEAR supports the latest Bluetooth version 2.1, EDR and profiles A2DP/AVRCP, HFP, HSP and intercom. Check your phone to see if it supports these Bluetooth profiles.

**Q. What profiles does UCLEAR support?**

A. UCLEAR supports the following Bluetooth profiles:

- Hand Free Profile (HFP)
- Headset Profile (HSP)
- Audio/Video Remote Control Profile (AVRCP)
- Advanced Audio Distribution Profile (A2DP)
- Hi-Fi Stereo 20-20.000 Hz versus standard Bluetooth 500 to 4.000 Hz
- Bluetooth Ver. 2.1 EDR, compatible with 3.0

**Q. Can I pair one device (such as a phone) to two UCLEAR units at the same time?**

A. No, each UCLEAR unit will need its own dedicated device to enable all of the great UCLEAR functionality such as listening to music or making phone calls. While it is possible to pair the same device to a UCLEAR unit, this cannot be done concurrently.

**Q. How many devices can I pair with my UCLEAR unit?**

A. You can pair up to two Bluetooth capable devices with your UCLEAR communications system.

**Q. If I have two devices paired to my UCLEAR, can both use the A2DP profile?**

A. Unfortunately, the UCLEAR unit can only work with one A2DP, one HFP and one intercom at the same time. At this point, there is no way to connect two A2DP streams.

**Q. What types of Bluetooth devices can be paired to my UCLEAR at the same time?**

A. GPS, iPod, Phone – some certified Bluetooth GPS units such as Garmin allow you to sync a Bluetooth music and phone device simultaneously to the Garmin. You could then sync the GPS unit to your UCLEAR unit. Most certified Bluetooth devices should work.

**Q. What are the system priorities of the UCLEAR?**

A. Please note that UCLEAR has the following priorities:

1. Phone
2. Intercom
3. Music

For example, if a call comes in while listening to music, the call will take priority. When the call is terminated, the music will automatically come back on. You can switch from music to intercom or vice versa.

**Q. What if I want to use my UCLEAR on more than one helmet?**

A. Go for it! We offer the UAP200 (for HBC200 series and HBC100 PLUS series products) and the UAP100 (for the HBC100 and HBC120), so you can easily switch your UCLEAR between helmets.

**Q. Which UCLEAR products can talk to each other?**

A. The HBC200, HBC220, HBC100 PLUS and HBC120 PLUS can all speak to each other. The HBC100 and HBC120 can only speak to each other.

**Q. Can I pair a UCLEAR with another Bluetooth intercom headset?**

A. No, a UCLEAR can only be paired with a UCLEAR. Every Bluetooth headset uses a different pairing mechanism. Headsets from different manufactures cannot be paired with each other.

**Q. Which UCLEAR should I choose? What's the difference?**

A. Mainly, the difference between UCLEAR products has to do with intercom range and the number of connectable users, as well as mounting options that come in the package. For example, the HBC100 series has a range of 30 feet between two users. The HBC100 PLUS series has a range of .30 miles between two users, while the HBC200 series offers up to .40 miles between 10 users. Also, the HBC100 and HBC200 come with mounts designed for powersports use whereas the HBC120 and HBC220 have ski and snowboard helmet mountings options. The HBC230 was designed specifically to mount to a bicycle helmet. The HBC100 series is not firmware upgradeable, but the HBC100 PLUS and HBC200 series are.

	HBC100 SERIES	HBC100/D PLUS SERIES	HBC200/D FORCE SERIES
ABF/BOOMLES S	U	U	U
SMART SYSTEM	U	U	U
DSP & ECHO	U	U	U
A2DP STEREO	U	U	U
IMPROVED DESIGN		U	U
ENHANCED INTERCOM		U	U
PRIVATE INTERCOM			U
MULTI-HOP			U
SUPER GROUP (unlimited intercom users)			U
FIRMWARE UPGRADE		U	U
CROSS- PRODUCT COMPATIBLE		U	U
PRICE (MSRP)	\$159.95	\$199.95 / 369.95	\$249.95 / 449.95

**Q. How long is the battery life of UCLEAR?**

A. With a full charge, UCLEAR gives about 10 hours of talk time and 400 hours (16.6 days) of standby time.

**Q. Where is the microphone on UCLEAR?**

- A. The microphone is built into the speaker set. This is an exclusive, industry first technology that is patented by BITwave. Normally when a microphone and speaker are in such close proximity, the user would experience reverb and feedback. This is why most systems have a boom mic that is difficult to use with different helmets and gets in the way of your mouth. With its boomless solution, UCLEAR has solved the feedback problem and rendered boom mics obsolete.

**Q. What affects the wind suppression rating?**

- A. Helmet design and fit. Air pressure affects sound waves, so how your helmet fits will affect the performance. Open faced helmets work. However, well fit, full faced helmets will always enhance performance. Experiment with directional placement of speakers to achieve ideal sound (Note, both speakers must always be symmetrical to each other for best sound).

**Q. How does the noise suppression technology work?**

- A. UCLEAR's advanced digital microphone array technology eliminates the need for a close-talk microphone. UCLEAR's superior approach to noise suppression separates wanted audio information from unwanted noise with the use of multi stage processing, using multiple Digital Signal Processing (DSP) based algorithms. Its purpose is to create an extremely versatile algorithm to handle a variety of noise types and other acoustical issues that would normally disrupt mobile communications. This technology forms a beam or "sweet spot" around your mouth that picks up your voice while intelligently eliminating environmental noise such as engine or wind noise. You can read and hear more about how this technology works on our Web site: <http://uclear-digital.com/technology.html>

**Q. What does full duplex mean?**

- A. Full Duplex allows for normal conversation instead of traditional two-way walkie-talkie communication where only one person can talk at any given time. The UCLEAR intercom function allows for conversation in full duplex mode.

**Q. What is Microphone Array Technology?**

- A. UCLEAR patented wear array technology provides excellent speech quality for personal communication, while participating in mild to extreme motion activities. Using two microphone array technology, UCLEAR headsets form a "sweet zone" virtually at the user's mouth by adaptively enhancing the user's speech and suppressing all interference and environment noise such as street, engine and wind, as well as speech and music from the user's surroundings.

## INSTALLATION & SETUP

### Q. What should I do first?

- A. Visit [uclear-digital.com](http://uclear-digital.com) to ensure your UCLEAR control unit has the most up to date firmware to take advantage of feature enhancements. (Note this is not applicable to the HBC100 series.) Further, check your phone to ensure it is up to date with its own latest software.

Also, your unit comes with some charge, but it is best to fully charge it upon taking it out of the box before use.

### Q. Do you offer any video help assistance?

- A. Yes, we have created a series of videos that will assist with many installation and setup questions. These are all available at: <https://www.youtube.com/user/UCLEARWorld>.

### Q. How do I install the UCLEAR control unit onto my helmet?

- A. UCLEAR products come with a variety of options, and we also offer additional mounting accessories for purchase. Options include a removable clip with rubber grip that is secured on the helmet shell between the padding. The second more permanent option is a bracket with double sided tape that is adhered to the outside of the helmet. In addition, there are also goggle and helmet strap options to meet the needs of different helmet and sport types.

### Q. How do I position the speakers in my helmet?

- A. The speakers can be positioned on either side of the cheek pads. If you have trouble hearing, you may want to bring the speaker closer to the ear. The microphones are able to pick up on your voice even if they are behind the padding of your helmet, as long as the fabric is breathable. Note that ABF technology will not transmit through solid, non-breathable materials such as plastic, metal and leather.

For the best audio quality, the left and right microphones have to be installed symmetrically in your helmet with the microphones pointing out at the same angle. The microphones work in tandem, and if they are not aligned properly they will not pick up on your voice.

Our bicycle speakers are slightly different, so for the HBC130 and HBC230 in particular, mount the speakers symmetrically below the helmet shell. The microphones should be placed as close to the edge of the helmet as possible. As with all UCLEAR products, it is important that both left and right speakers be placed symmetrically on the helmet and pointing forward at the same angle. If necessary, cut the extra silicon tubing.



**Q. How do I make sure my unit is protected against weather?**

A. Please make sure the speaker wire is fully inserted into the main unit. This is done by pushing the speaker wire into the control unit until you can no longer see the three ribs on the speaker wire plug. This ensures a full audio connection and a weatherproof seal.

**Q. How do I pair my UCLEAR to my phone or device?**

A. The exact steps depend on your mobile phone or device, but generally, you should ensure the Bluetooth feature has been activated on your device. Then turn your UCLEAR control unit on. Press the Up and Down buttons on your UCLEAR unit to enable pairing. You should see your UCLEAR come up on your device as an option and be able to select it on the device. If your device asks for a passcode, it is 0000.

**Q. Should I pair my UCLEAR first to phone or another UCLEAR unit?**

A. First pair it to your device, and then proceed with the pairing process for intercom.

**Q. How do I pair my UCLEAR for intercom?**

A. Please visit our YouTube channel at: <https://www.youtube.com/user/UCLEARWorld>. Video assistance is available for pairing two or more UCLEAR control units.

**Q. How do I pair my UCLEAR unit with my GPS?**

A. Try these tips to get your GPS to pair with the UCLEAR unit:

1. Shut down both the UCLEAR and GPS.
2. Restart the devices and re-pair the UCLEAR to the GPS.
3. Once paired, shutdown and restart both devices.

You may also try deleting all the Bluetooth records from the GPS, restart then re-try pairing again.

Finally, assume the GPS has been successfully paired to the phone and UCLEAR unit. If all these devices are powered up at the same time, it may cause confusion to the GPS. Your UCLEAR should be the last device to be turned on, then let it autoconnect to the GPS.

**FEATURES & FUNCTION****Q. How can I set the volume on my UCLEAR?**

- A. You can set the volume by pushing the up/down button to increase/decrease the volume. When the volume level is set, the control unit will store that volume setting, so the next time the device is connected it will automatically start at that associated volume level.

UCLEAR also uses Automatic Speaker Loudness for communication. This feature increases the volume depending on the environment noise level. However, you can still adjust the volume manually.

**Q. How do I get better sound?**

- A. Sound quality and voice activation features are dependent on the capabilities of your master pairing device (e.g. mobile phone). For the best sound quality try adjusting the volume levels of your master pairing device to 70% or until you achieve best results.

**Q. I can't hear any bass, and the music is quiet or tinny. How can I fix this?**

- A. When music sounds tinny, this is often due to streaming music through Hands Free Profile (HFP) instead of Advanced Audio Distribution Profile (A2DP).

**Q. When I listening to music and then take a call, the music does not automatically start playing...?**

- A. Make sure your phone's software is current and up to date. Check your phone's manufacturer to find out if you are using the latest software version.

**Q. What do I do if I can't get Pandora from my Blackberry to play through my UCLEAR?**

- A. Enable the Bluetooth function in Pandora by going into the Station List screen, and hit the Blackberry key to pull up the menu. Select "Options" in the menu, and then enable Bluetooth in the options menu (and save). For more information go to <http://supportforums.blackberry.com/t5/BlackBerry-Bold/Pandora-and-Livestream-to-Bluetooth-Headset/td-p/252331>.

**Q. How do I tell which profile mode my device is in?**

- A. Try double tapping the UCLEAR power button to start or stop your music. If the music doesn't start or stop, you're in HFP.

**Q. How do I get into A2DP?**

A. To stop HFP and access A2DP:

1. First, stop the music with the controls on your device.
2. Next, 'double press' the PWR button on your UCLEAR unit to restart the music. If this doesn't work on the first attempt, repeat the process a couple of times.
3. If this still does not work, "reboot" the phone and your UCLEAR unit, then 'double press' the PWR button to start the music.
4. If this does not work, check with the phone manufacturer to make sure it is A2DP enabled. If it is, you might try updating the phone software to ensure you have the phone manufacture's latest A2DP software updates.

**Q. How can I make my UCLEAR louder?**

A. There are a few tips to increase the volume and get you the best sound. You might try adjusting both phone and controller to find the setting that will maximize volume. For example, putting the paired device at 70% volume output often increases sound quality coming through the UCLEAR. Please do note that to prevent hearing damage, your UCLEAR unit volume is rated to 104 decibels. Hearing damage can occur at 98 decibels.

**Q. What do I do if I only get sound from one speaker?**

A. Be sure to fully insert the speaker wire into the main unit using your thumb and forefinger. Then, insert the speaker wire into the main unit until you can no longer see the 3 rings on the speaker wire plug (this will ensure a full audio connection and makes the unit weatherproof).

NOTE: If you have an HBC200 series UCLEAR and are trying to use an HBC100 series speaker/mic, you will only get sound out of one speaker. The same applies if you are using HBC200 speakers with an HBC100 model.

**Q. The sound is bad through my GPS, what should I do?**

A. The GPS may default to HFP for streaming music if you activate music playback manually from the GPS versus through your UCLEAR unit.

To get the GPS device to stream through A2DP/AVRCP, please double tap the power button twice on your UCLEAR to trigger the A2DP profile first, and then start the music from the GPS.

**Q. I can hear fine, but why can't the person I'm calling hear me?**

A. The main problem with callers not hearing your voice has to do with positioning of microphones. They must be installed symmetrically on both sides of your helmet, pointing forward and at the same angle. If microphone positioning is off 5% or more, voice quality will start to suffer. If off 15% or more, your voice will sound muffled or distant.



**Q. It seems like my sound is cutting out...how can I fix that?**

A. Some phones or devices transmit a weaker Bluetooth signal than others. If your speakers cut out when you turn your head, try moving the phone or Bluetooth device closer to the headset, for example carry your phone in your left chest pocket. We offer an extension cord accessory to give increased placement options. Some customers have also had success putting a cell phone mount on their handlebars.

**Q. What is my intercom range?**

A. Distance is dependent on environment and elements that can affect signal interference. UCLEAR's HBC200 series utilizes Multi-Hop to give you the best range of .40 miles between UCLEAR users. The HBC100 PLUS series offers .30 miles between users, and the HBC100 series provides about 30 feet of intercom range capability, which is best for rider to passenger.

**Q. Can I still get intercom if I have more than one device paired to my UCLEAR?**

A. Yes, you can pair two devices to the UCLEAR and still utilize the intercom functionality.

**Q. If I am in intercom mode when I power down, will UCLEAR remain in intercom mode when powered back up?**

A. No. However, you will not need to go through the pairing process.

**Q. Will my intercom time out?**

A. No, after intercom is started, it will not auto timeout. You need to terminate it manually. However, the unit will auto power off in two hours if intercom and all other Bluetooth devices are disconnected. If intercom has not been in use before, the unit will auto power off in 10 min if all Bluetooth devices are disconnected.

**Q. Which UCLEAR products offer private intercom?**

A. The HBC200 series.

**Q. Is private intercom possible with all UCLEAR members of a riding group?**

A. This only applies to the HBC200 series, where more than two riders can pair, but yes. Private intercom can only work with the user directly connected to you. For example, you have A, B, C, D chained up, AB and CD can have private intercom but AC or AD cannot. See your manual for more detail.

**Q. How do I activate voice commands or hands free?**

A. You can pick up calls hands free by saying "hello" or "pick up". To utilize more advanced voice features, it depends on the capabilities of your paired device. For example, if you have Siri or Vlingo on your device, you can activate these by pressing the "Answer" and "Down" buttons on your UCLEAR control unit.

**Q. I'm using GPS app on my phone, and it's not interrupting my intercom...why?**

A. The GPS app actually streams messages through A2DP. A2DP has a lower priority than the intercom.

Q. What are the temperature ratings?

A. The HBC100 series is rated from -20°C (-4°F) to 60°C (140°F). The HBC100 PLUS series and HBC200 series are rated from -30°C (-20°F) to 60°C (140°F).

**Q. How do I perform a reboot on my UCLEAR?**

A. From the on position, hold down all three buttons at the same time until you see the power light go out.

### SALES & SUPPORT

**Q. I followed the manual and nothing's working...help?**

A. Please call the technical support team at 1-855-BITwave. We're happy to help!

**Q. Where can I find more help online?**

A. We have created a number of videos on our YouTube channel to assist with installation and setup: <https://www.youtube.com/user/UCLEARWorld>.

**Q. Who do I talk to for warranty?**

A. Please ensure that you have registered your product online and have your proof of purchase handy. Then call 1-855-BITwave, and we'll take care of you. UCLEAR products come with a two year limited warranty from date of purchase.

**Q. Where can I purchase UCLEAR products?**

A. UCLEAR products are sold at a number of locations, depending on the model you're seeking. For example, many local motorcycle dealerships and retail stores such as Cycle Gear offer the HBC200. The HBC200 is available at outdoor outlets such as REI. In addition, nearly all UCLEAR products can be purchased online through e-tailers like Amazon.com, Revzilla and directly from BITwave online or by phone.

**Q. Can I try it out first?**

A. Return policies are in accordance with the location the product was purchased from. UCLEAR dealer policies vary, so you should check with the store it was bought from. If you purchased the UCLEAR unit directly from BITwave, over the phone or online, we offer a 30 day money back guarantee.

**Q. Where can I find UCLEAR online?**

A. web | UCLEAR-digital.com  
youtube | [www.youtube.com/user/UCLEARworld](http://www.youtube.com/user/UCLEARworld)  
linkedin | [www.linkedin.com/company/bitwave-usa](http://www.linkedin.com/company/bitwave-usa)  
twitter | [twitter.com/UCLEARworld](http://twitter.com/UCLEARworld)  
instagram | [instagram.com/UCLEARworld](http://instagram.com/UCLEARworld)  
facebook | [www.facebook.com/UCLEAR](http://www.facebook.com/UCLEAR)  
pinterest | <http://pinterest.com/uclear>

**Q. Where can I review UCLEAR online?**

A. There are a number of e-tailers such as Amazon, REI, Backcountry, Revzilla and more that offer areas to review our product. We're also working on a spot on our own Web site. If you do a review, let us know at [media@bitwaveusa.com](mailto:media@bitwaveusa.com)!