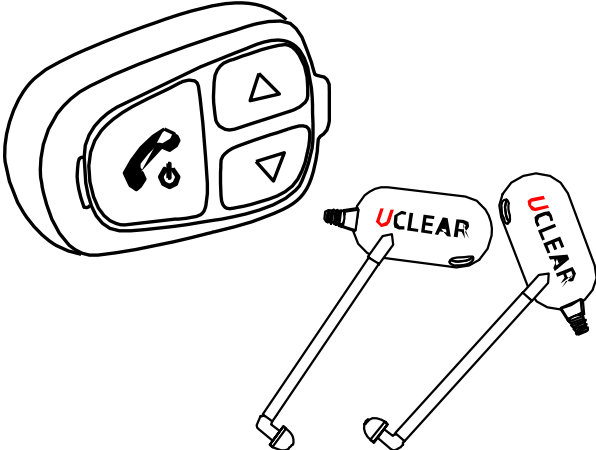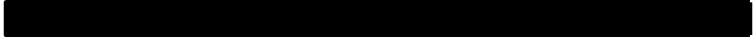*U*CLEAR

Bike Helmet Communicator

*U*CLEAR

HBC 130

User Manual

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This Class}B~ digital apparatus complies with Canadian ICES-003.

Cet appareil s'accorde avec Industrie Canada licence-exempte RSS standard.
(1) cet appareil ne peut pas causer l'intervention, et (2) cet appareil doitaccepter de l'intervention, y compris l'intervention qui peut causer l'opération non désirée de.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada

TECHNICAL SUPPORT:
For additional information please visit our website at
www.uclear-digital.com

For customer and technical support in the US and Canada, please contact:
BITwave USA LLC
1093 E Iron Eagle Dr. #115
Eagle, ID 83616
1-855-BIT-WAVE
Email: support@uclear-digital.com

FCC COMPLIANCE STATEMENT FCC ID:NMC2010HBC100A This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operations.
Note: The manufacturer is not responsible for any radio or Tv interference caused by unauthorized modifications to this equipment. Any modifications to the equipment will void the manufacturer's warranty.

HBC130 *Bike Helmet Communicator User Manual*

HBC130 helmet communicator control unit — *Hi-fi stereo headset* — *40"extension Cord*

Extra Silicon tube and Earbuds — Side Mounted Helmet Strap — *An AC charger and USB charging cable*

Microphone Alignment velcros and Cables mounting velcros — A *metal mounting bracket* with double sided tape — *User manual*

Contents

Notices

PERSONAL SAFETY:
Do not open the seal of the hardware, tamper, repair or modify any parts. Do not touch the product with metal objects or parts or chemical products. Violation of the above will lead to potential fire hazards and mishaps.
Please contact the technical support or your local supplier if your product malfunctions.
Always comply with the local law and traffic regulations. Where use of the product is not permitted or allowed by any laws and regulations including the traffic laws of your country, we warn you not to go against such restrictions. You will bear the full responsibilities of any breaches of law and regulations.
You should not allow the operations or use of the product or any attempts to use it by any persons including yourself to compromise anyone's safety including your own or to cause harm to any vehicles, property, objects, livestock, inventories, assets and the like under any circumstances. You or any users of the product are to take all necessary safety measures and precautions and to remain alert to all surrounding conditions.
You are warned not to operate the product if you are not physically capable of doing so in a safe manner, if you have or will consume any alcohol or any mind-altering substance during its operation so that your alertness is compromised or if you have any medical conditions or needs that may compromise your abilities to do so in a safe manner.
We warn you of the inherent, unforeseeable and unlimited risks and dangers in using the product while in traffic, including injury or illness, strains, fractures, partial and/or total paralysis, death or other ailments that could cause serious disability due to any causes.
This product is only for use by persons eighteen (18) years of age and above who have understood the warnings, risks and the terms of use.
You confirm that you have read this release of liability and fully understand its terms and that you have given up substantial rights by using or attempting to use the product.

All risks from operating or usage of the product rest solely and entirely with the user of this product, the original purchaser or any third parties, who assumes full responsibility for all injuries, losses and/ or damages, whether caused in whole or in part by the negligence, omissions or other conduct of others, including that of BITwave, FSC and all their representatives, partners, agents, distributors, suppliers, resellers and all others in its supply and distribution chain either due to the designer's or manufacturer's negligence or omissions or any third parties involved.

CORRECT DISPOSAL OF THIS PRODUCT:
Do not dispose this product with other household wastes at the end of its working life. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.
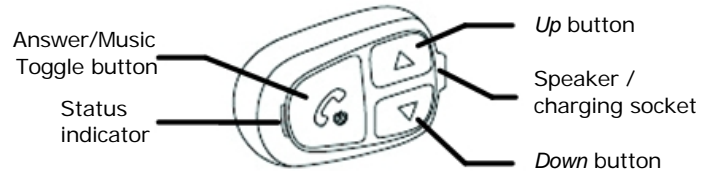
Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their suppliers and refer to the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

PRODUCT INFORMATION:
BITwave, FSC and all their representatives, agents, distributors, suppliers or resellers shall not be held responsible for any consequences arising from any errors or omissions in the guide or resulting directly or indirectly from the use of the information herein. BITwave and FSC reserve the right to amend or improve the product design or user guide without any restrictions and without any obligation to notify users.
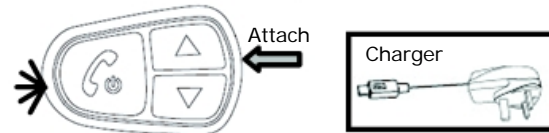All information here is accurate as of the date of printing.
Please check for the latest version of any the modified or upgraded product on the website www.uclear-digital.com from time to time.

Your HBC130 at a glance

Answer/Music Toggle button

Status indicator

Up button

Speaker / charging socket

Down button

GENERAL FUNCTIONS
Before using your HBC130 **please charge it first!**

Attach

Charger

Charge
- Check Bluetooth phone capabilities before use
- To charge, use the provided charging cable by connecting it either to a USB port or to the adaptor provided.
- While charging, the status indicator light will be red.
- Upon fully charged, the status indicator light will be blue.

Low Battery Indicator
- You need to charge the helmet communicator when the status indicator light blinks red twice every 2 seconds with a beep every minute.

Install Speakers
Make sure the speaker wire is inserted into the main unit.
Insert the speaker wire into the control unit until you can no longer see the 3 ribs on the speaker wire plug.

Power On
- Hold Answer for 2 seconds.

Power Off
- Hold Answer for 5 seconds.

Reset
- Press all 3 buttons together.

Volume Up
- Press Up once.

Volume Down
- Press Down once.

*NOTE: The volumes for mobile phone, music and intercom functions are controlled separately.

MOBILE PHONE FUNCTIONS
Pairing your HBC130 with your mobile phone

Pairing
- Check Bluetooth phone capabilities before use.
- Hold *Up* and *Down* buttons together for 2 seconds. The status indicator light will blink blue then red.
- From your mobile phone Bluetooth menu, search for '**HBC130 BIKE**'.
- If your phone requires a password, enter '**0000**'.

Warranty does not cover data recovery and physical deterioration due to use, damages resulting from accidents, storage , loss or data loss or damage during repairs or transits . The sender will bear all transportation charges for functioning products but which were declared defective.

LIMITATIONS OF WARRANTY:
All product warranties for the product by **UCLEAR** are limited to those mentioned in the product manual.

WAIVER AND DISCLAIMER:
BITwave, FSC and all their representatives, agents, distributors, suppliers and resellers shall not be liable and will be held harmless from any and all litigation, claims, debts, demands, actions and liability which may arise, directly or indirectly, from operating or using the product for any damages, losses, distress, pain, suffering, discomfort, loss and injuries including bodily harm illness, strains, fractures, partial and/or total paralysis, death or other ailments that could cause serious disability either to any persons, or any parties whether the user or other third parties or their possessions, or to any goods, vehicles, properties, assets among others including your own suffered by any persons, organizations, or any third parties whether physical or otherwise and which may accrue to you in the future, to the fullest extent permitted by law as a result of the use, operation, malfunctioning, misuse, disposal or repairs of the product or any other reasons, conditions or circumstances or attempts to do so whether due negligence, omissions or otherwise of BITwave, FSC or any of their representatives, partners, agents, distributors, suppliers, resellers, designer, manufacturer or any others in its supply and distribution chain or any third parties involved.

BATTERY WARNING:

The **UCLEAR** helmet communicator contains a rechargeable lithium ion polymer battery. To reduce risks of fire or burns, do not disassemble, crush, puncture, short external contacts or dispose in fire or water.

CHARGING NOTICE:

To reduce the risk of personal injury, electrical shock, fire or damage to equipments, please follow all the instructions below:
- Do not immerse the product, AC adaptor or speakers in water.

- Do not install, place or use the product near any source of heat for example: stove, radiator, oven, toaster, coffee maker or other apparatus that gives off heat.
- Always use the provided AC power adaptor and cable included in the package to charge the product. Use of any incorrect power supply to charge the product may cause permanent damage to the product and render the warranty void.

WARRANTY: (Applies only to customers outside of the USA and Canada. For customers in the USA and Canada, please refer to the warranty card.   )

Without prejudice of legal warranty, the product is covered under a 1 year warranty by manufacturer from the date of purchase. Please provide the proof of purchase when you return the item to the supplier.
The warranty covers manufacturing defects only.
The warranty is voided by any unauthorized repairs, misuse, misapplication, tampering of the product, modifications, upgrading or results of any failures to follow the guidelines as set out in the product brochure or by any of the actions specified in this brochure or anywhere in our technical publishing released to the public from time to time which would have voided the warranty.
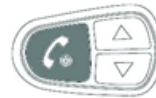
Answer Incoming Call
◇ Use voice pickup, say 'hello' or 'pickup'.
OR
◇ Manually press *Answer* button once.

Reject/ End Incoming Call
◇ Hold *Answer* button for 2 seconds.

3 Way Calling

◇ To swap between 2 concurrent calls, press the *Answer* button once.

Last Number Redial
◇ Hold Answer and *Up* button for 2 second.

Voice Dial
◇ Hold *Answer* and *Down* button for 2 second.

MUSIC STREAMING FUNCTIONS
*NOTE Check the functionality of your music device to ensure that it has Bluetooth capabilities.

Pairing (for Music Bluetooth adaptor Only)
◇ Hold *Up* and *Down* buttons together for 2 seconds.

Play/ Stop (Quick Mute Functions)
◇ Press the Answer button once to stop the music. Press the Answer button 2 times to

resume the music.

Backtrack

◇ Press the *Down* button 2 times.

Fast Forward

◇ Press the *Up* button 2 times.

INTERCOM FUNCTIONS

Pairing your HBC130 to another HBC130

Helmet 1
(Master Unit)

Helmet 2
(Secondary Unit)

Pairing (Needs to be done once)

◇ The helmet communicator needs to be switched off before performing the following steps:
Press *Answer* and *Down* buttons for 5 seconds on helmet 1 & press *Answer* and *Up* buttons for 5 seconds on helmet 2.

Initiate or Terminate Conversation (Toggle Functions)

◇ Hold the *Up* button for 2 seconds.

- The sound quality and voice activation feature are dependent on the capabilities of your mobile device (e.g. mobile phone).
    ◇ Make sure that your mobile or pairing device is using the most current software updates.

- For best sound quality try adjusting volume levels of your master pairing device to 70% or until you achieve best results.

- Try experimenting with your pairing device, turn the volume to 50%,75% and 100% to find which combination works best for your settings.

Technical Data

Unit	
Dimensions (L x W x H)	6 0mm x 4 0mm x 15mm
Weight	3 0 g
Audio	
Frequency response	30Hz to 20kHz
Sampling rate	48kHz, 16 bit
SPL	105dB $\pm$ 2dB
THD	0.5%
Bluetooth	
Specifications	Version 2.1 EDR, Class 2
Profiles	HSP, HFP, A2DP, AVRCP, Intercom
Radio	
Carrier frequency	2.4 - 2.483 GHz
Range	Up to 10m (open field)
RF output power	-6 dBm to 4 dBm
Power	
Power consumption	200mW (max)
Power input (charging)	5V / 400mA / 2W
Built-in battery	3.7V, 570mAh, Lithium-ion Polymer (Rechargeable)
Music/talk time	Up to 10 hours
Standby time	400 hours
Temperature	
Operation temperature	-10°C to +60°C (14°F to +140°F)
Charging temperature	0°C to +45°C (+32°F to +113°F)
Storage temperature	-40°C to +80°C (-38°F to +176°F)

Warnings and Safety Instructions

This manual uses the ✋ *and* ❗ *icons to highlight certain instructions. Below is an explanation of the icons.*

❗ ### Attention

- This icon highlights special instructions and precautions intended to avoid damage to the system. Non-compliance may void the product warranty.

✋ ### Warning

- This icon provides precautions important to prevent injuries to the user.

❗ ### Attention

- Please read through the operating instructions to understand how to operate the system, in particular the safety instructions.

✋ ### Warning

- Please note that there are some countries that by law disallow the rider to set the **UCLEAR** helmet communicator to a volume that prevents you from perceiving the surrounding.

- Please note that in some countries the use of both speakers simultaneously is authorized only out of pubic traffic conditions.

- Please check with the relevant authorities for local safety legislation before using the **UCLEAR** helmet communicator on the road.

Warnings and Safety Instructions

- Prolonged exposure to loud sounds may lead to permanent hearing damage.

- Do not attempt to place an outgoing call through the mobile phone while riding on the motorcycle at any point of time.

- Please do not use the **UCLEAR** helmet communicator in any way that may distract you or hinder your judgment while on the move. Never ever compromise your safety and the safety of others.

⚠ *Attention*

- Charging and handling rechargeable battery products incorrectly may cause them to overheat, catch fire or explode. To prevent this please follow the instructions below:

    i) Never change the batteries yourself, always bring it to an authorized dealer to perform the replacement for you.

    ii) When charging, use **ONLY** the charging cable provided or a replacement cable from the **UCLEAR** dealer. Using similar, compatible or any other cables may lead to permanent product damage and will void the product warranty.

- Never make any modifications to any parts of the **UCLEAR** helmet communicator in any way as it may cause the system to malfunction causing hurt to you.

- Do not modify your helmet to use with this system - it is not necessary to do so.

Status Indicator Configurations Summary

The table below shows the status indicator configurations.

	State	Status Indicator
1	Off (No power)	-
2	On (BT* not connected)	Blink blue fast
3	On (BT* connected)	Blink blue slowly
4	Phone & Music device Pairing mode	Blink blue & red alternately
5	Call in progress	Blink blue very slowly
6	In-coming call	Blink blue & red alternately
7	Battery low	Blink red every 2 seconds
8	Power down	Blink red 5 times
9	Intercom connected	Blink blue twice every 2 seconds
10	Intercom Pairing mode (master unit)	Blink purple fast
11	Intercom Pairing mode (secondary unit)	Blink purple slowly
12	Battery charging	Solid Red
13	Battery fully charged	Solid Blue
14	Battery faulty	Solid purple

BT - Bluetooth

Button Configurations Summary

The table below shows the button configurations.

Action	Button
Common Instruction Commands	
Power on	Hold *Answer* for 2 seconds
Power off	Hold *Answer* for 5 seconds
Activate Bluetooth pairing	Hold *Up* & *Down* for 2 seconds
Volume up	Press *Up* once
Volume down	Press *Down* once
Reset	Press *Answer, Up* & *Down* once
Voice Calling	
Pick up incoming call	Press *Answer* once
End call in progress	Hold *Answer* for 2 seconds
Reject incoming call	Hold *Answer* for 2 seconds
Voice dial	Hold *Answer* & *Down* for 2 seconds
Last number redial	Hold *Answer* & *Up* for 2 seconds
Music Streaming	
Play	Press *Answer* 2 times
Stop/Quick Mute	Press *Answer* 1 time
Fast forward track	Press *Up* button 2 times
Backtrack	Press *Down* button 2 times
Intercom	
Pairing as helmet 1 (m aster unit)	*While unit is off, hold Answer* and *Down* for 5 seconds
Pairing as helmet 2 (secondary unit)	*While unit is off, hold Answer* and *Up* for 5 seconds
Connect intercom	Hold *Up* for 2 seconds
Disconnect intercom	Hold *Up* for 2 seconds

Features

The UCLEAR helmet communicator has three main functions: to listen to music, make mobile phone calls, and for intercom conversation all via wireless Bluetooth.

Mobile Phone Functions

• Bluetooth phone audio capabilities, HFP & HSP Profile.
• Voice activated call pick up.

Music Streaming Functions

• Bluetooth music streaming with hi-fi and stereo capabilities, A2DP Profile.
• Bluetooth Audio/Video Remote Control capability, AVRCP profile.

Intercom Functions

• Helmet to helmet intercom range via two UCLEAR helmet communicator up to 10m range.

Advanced Product Features

• Self adaptive intelligent noise cancellation algorithms ensure conversations on the go are clear even in noisy environments.

• Voice controlled incoming call answering.

• The weather resistant engineered design ensures the possibility of communication rain, snow or shine.

• The integrated microphone array technology allows you to communicate without the hassle of using boom microphones.

The UCLEAR HBC130 helmet communicator package contains :

- A UCLEAR HBC *130 helmet communicator control unit*

- A pair of *hi-fi stereo headset* with embedded microphones

- *40" extension Cord*

- A *metal mounting bracket* with double sided tape

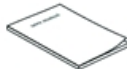- Side Mounted Helmet Strap

- Extra Silicon tube and Earbuds

- Microphone Alignment velcros and Cables mounting velcros

- An *AC charger* and *USB* charging cable

- A *user manual*

To use the intercom profile on the helmet communicator for the first time, you need to first connect the two UCLEAR helmet communicators wirelessly by pairing.

Pairing

- Pairing readies one UCLEAR helmet communicator to search for the other UCLEAR helmet communicator. This pairing process needs to be carried out only once.

- With both UCLEAR helmet communicators powered off, hold the *Answer* and *Down* button for 5 seconds to pair helmet 1 (master unit) and hold *Answer* and *Up* buttons for 5 seconds to pair helmet 2 (secondary unit). The status indicator for both helmets will blink blue and red alternately while trying to connect to each other.

- During the pairing process, please ensure that there are no other intercom units in close proximity.

- It is recommended that after the pairing process is successful. Restart both UCLEAR helmet communicators.

After pairing the two UCLEAR helmet communicators, you may now use the intercom profile.

Initiate Intercom (Toggle function)

- To start conversation, hold the *Up* button for 2 seconds. • In the event where the link breaks during the conversation, you will need to re-initiate it when the helmets come back into Bluetooth range.

T erminate Intercom (Toggle function)

- To end the conversation, hold the Up button for 2 seconds.

* Note: Pairing between 2 units only needs to be done one time. After the initial pairing, initiate or terminate a conversation by pressing the Up button for 2 seconds.

To use the helmet communicator with your music device you must connect them wirelessly through Bluetooth pairing. This step is only required for Bluetooth music streaming devices.

Pairing

• To connect the helmet communicator to a Bluetooth music device, hold the *Up* and *Down* buttons for 2 seconds. This puts the helmet communicator into pairing mode. The status indicator will blink blue and red alternately.

• Next, put the Bluetooth music device into pairing mode. Both the helmet communicator and the music device should automatically pair together.

After pairing the helmet communicator to a music device, you may use the helmet communicator to wirelessly listen to music stored on the device.

In order to use the helmet communicator to remotely control the music streaming device, the music device Bluetooth Audio/music streaming device needs to have /Video Remote Control capability, AVRCP profile.

Play & Stop

• The Play and Stop command is a toggle function. To play music, press the Answer button 2 times. Pressing the Answer button 1 time will pause the music.

Fast Forward

• To skip to the next track, press the *Up* button 2 times.

Backtrack

• To skip to previous track, press the *Down* button 2 times.

Install Speakers

• Identify a position on the helmet to adhere the speaker velcros. • Peel off the double sided tape protective film.
• Carefully place the velcros onto the position identified in step 1 (You may only do this step once).
• Apply slight pressure onto the velcros to ensure that they are firmly secured.
• Install the speakers onto the helmet.
• It is recommended to install the speaker below the helmet shell. • The mic opening should be placed as close to the skin as possible. • Both left and right speakers should be placed symmetrically from the helmet centre line.
• If necessary cut the extra silicon tube with a pair of scissors as per your desire length.

• Use the velcros to mount the cable inside the helmet.

• Make sure the speaker wire is inserted into the main unit. Insert the speaker wire into the control unit until you can no longer see the 3 ribs on the speaker wire plug.

Your UCLEAR **HBC130 helmet communicator package comes with 2 types of mounting brackets: a side mounted helmet strap and a metal mounting bracket. Use any one of the brackets to install the HBC130 control unit onto your helmet.**

Mounting Control Unit using the Side Mounted Helmet Strap.
• Install Side Mounted Helmet Strap on left side of helmet .
• Wrap Side Mounted Helmet Strap around any 2 holes on the helmet.
• Make sure that the Side Mounted Helmet Strap is installed with 2 side holes at the top of the clip are at the top and the metal prong on the clip is point down.
• Use the Velcro to secure Side Mounted Helmet Strap in Place.

Install Metal Mounting Bracket

• Identify a position on the helmet to adhere the Metal Mounting Bracket.

Voice Call
• To activate the voice call feature, hold the *Down* and *Answer* buttons for 2 seconds. The accuracy of the voice dialing feature is dependent on your mobile phone s capabilities. ,

Last Number Redial

• To redial the last number, hold the *Up* and *Answer* buttons for 2 seconds. The capability of this function is dependent on the mobile phone used.

3 way calling

• While on a call, if an incoming call comes in, you may answer the call by pressing the *Answer*   button once.
• To swap between 2 concurrent calls, press the *Answer* button once.
• To end a call during a 3 way call, holding the *Answer* button for 2 seconds will end the active call. Upon terminating the active call, the call on hold will become active.

Music Feature

• If the mobile phone supports A2DP/AVRCP profile, user may activate the music by playing it directly from the phone or by controlling the phone via the helmet. To operate refer to Music Streaming Operations section. Should the documented steps fail to activate A2DP/ACRCP profiles, please refer to the user manual of your pairing device (e. g. phone, ipod, etc...).

To use the helmet communicator with your mobile phone for the first time, you must first connect them via Bluetooth pairing.

Pairing

• To connect the helmet communicator to a mobile phone, hold the *Up* and *Down* buttons for 2 seconds. This puts the helmet communicator into paring mode. The status indicator will blink blue then red.

• Next, turn on the mobile phone Bluetooth functions and search for Bluetooth devices. Select   **'HBC130 BIKE'**   to pair with the desired device.

• When prompted to enter a passcode, enter **'0000'** .

  *Most mobile phones will automatically connect with both phone and music Bluetooth capabilities when paired with the **UCLEAR** helmet communicator.

After pairing the helmet communicator to your mobile phone, you may now use the helmet communicator to answer your calls or make outgoing calls or listen to music.

Voice Activated Pick Up Calls

• When a call comes to the mobile phone, say 'hello' or 'pick-up' to answer the call **OR** press the Answer button once.

Reject Calls

• To reject an incoming call or an incorrectly placed outgoing call hold the *Answer* button for 2 seconds.

• Peel off the double sided tape protective film.
• Carefully place the Metal Mounting Bracket onto the position identified in step 1. (You may only do this step once)
• Make sure that permanent metal mounting clip is installed showing the UCLEAR Logo right side up with the 2 side holes at the top and the metal prong pointing down.
• Apply slight pressure onto the metal mounting bracket to ensure that the metal mounting bracket is firmly secured.
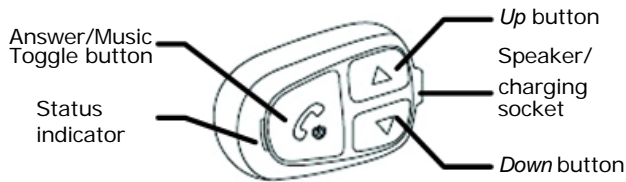
Install Main Unit

• Slide main unit onto the clip bracket. You should hear a 'click' sound when fully inserted.
• Fully insert the speaker USB connector.

Using the Extension Cord

• The 40″ extension cord allows you carry the control unit on you or in your jacket rather than on your helmet.
• Plug the male speaker cable end into the 40″ extension cord then fully plug the extensions cord into the control unit.
• You make carry the control unit on or in your jacket rather than on your helmet.

Your UCLEAR **HBC130 helmet communicator is now setup and ready to go!**

Answer/Music Toggle button

Up button

Speaker/ charging socket

Status indicator

Down button

The operations described here are applicable to all modes of operations.

Power On
• Hold the Answer button for 2 seconds to power on the helmet communicator. The status indicator will blink blue and a power up tone can be heard.

Power Off
• To switch off the helmet communicator, press and hold the Answer button for 5 seconds. The status indicator will blink red 5 times followed by a long beep before fully shutting down.

Power Save Mode (Auto Power Off)
• If the intercom feature has been in use, and all other Bluetooth devices have been disconnected, the system will auto shutdown in 1 hour. If the intercom feature has not been in use and the HBC100 has not connected to any other device, the system will auto shutdown in 10 minutes.

Low battery
• When the battery level is low, the status indicator light will flash red twice every 2 seconds while emitting a warning beep every minute.

Charging the Unit
• To charge the helmet communicator, connect the provided charging cable to the speaker/ charging socket. Upon charging, if the unit is on, the system will automatically initiate power down.

Volume Control
• The volume control of the helmet communicator can be controlled using the Up and Down buttons. Pressing the Up or Down button will increase the volume respectively.The volume control for each mode is independent of each other.

Automatic Speaker Loudness (Communication only)
• The speaker loudness will be automatically adjusted depending on the environment noise level. However you can still adjust the volume manually.

Automatic Pairing
• The helmet communicator has the ability to connect to the last paired device automatically for two features - music and mobile phone.
• Automatic pairing of the helmet communicator with music devices is dependent on the music devices.

Automatic Profile Switch
• The helmet communicator supports multiple profiles concurrently, but at any point of time only one profile is active. The automatic profile switch determines which profile should be active at any point of time starting from the highest priority: (1) Mobile Phone functions (2) Intercom functions and (3) Music functions.
• The helmet communicator can be paired to more than 1 device. However to achieve the most out of the helmet communication, we do not recommend pairing more than 2 devices to the helmet communicator at one time