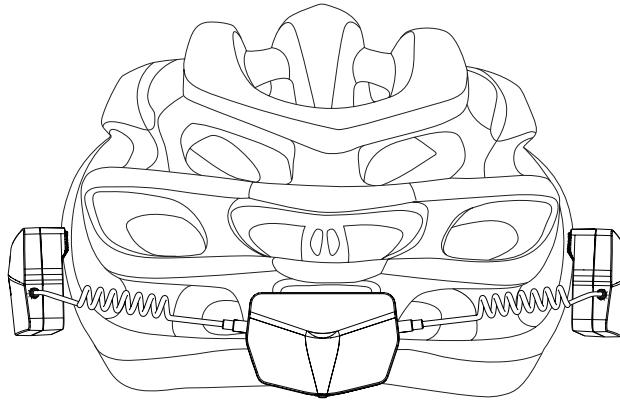


# FREEWHEELIN

Audio System for **Helmets** | **Vehicles** | **Desktop**

USER GUIDE





Audio System for **Helmets** | **Vehicles** | **Desktop**

**FreeWheelin** is the world's most advanced stereo audio system worn on helmets by cyclists, skiers, skaters, construction workers, equestrians and more. It also functions as a high quality speakerphone for vehicle or desktop. Freedom to use your Bluetooth speakers on helmets, in the car, or in the office is really what Bluetooth freedom — or *FreeWheelin* — is all about!

- Installs easily on most recreational and safety helmets (Fits youth and adult-sized open face half helmets including highly vented helmets — does not fit full-face helmets)
- Works with any portable audio source including iPod, iPhone, smartphones, and MP3 players — any device with a 3.5mm speaker/headphone port or Bluetooth compatibility
- Makes and receives phone calls while in Bluetooth mode using any iPhone or Bluetooth enabled smartphone
- Safe and legal — unlike ear buds, FreeWheelin does not insert or cover the ears — ambient sounds (car horns, sirens, etc.) may still be heard
- Lightweight amplifier delivers powerful sound through dynamic miniature stereo speakers
- Control your music or receive phone calls using easy access buttons
- Dual mode — wired (cable) or wireless (Bluetooth)
- Rechargeable 450mAh lithium polymer battery provides up to 15 hrs. music or 10 hrs. talk time
- Durable water resistant construction (not water proof)
- Bonus feature — unique visor clip accessory converts FreeWheelin into hands-free speaker-phone for vehicle or desktop

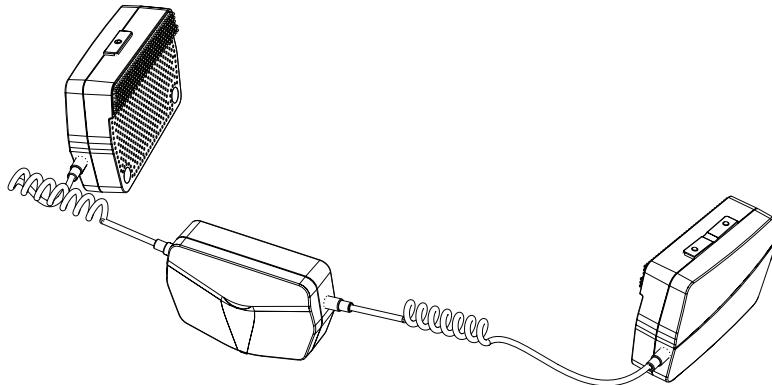
*iPod, iPhone, and SIRI are trademarks of Apple, Inc., registered in the U.S. and other countries.*

**FREEWHEELIN**

Audio System for **helmets** | **vehicles** | **desktop**

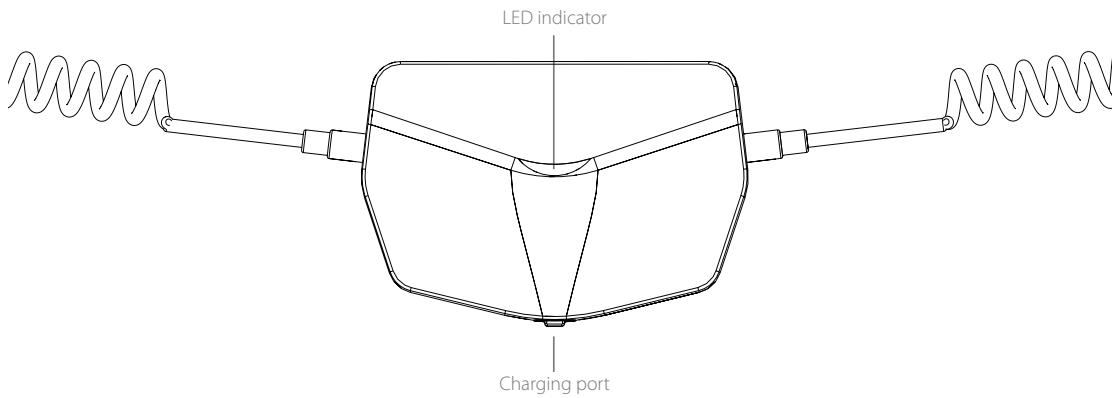
## PACKAGE CONTENTS

- FreeWheelin Bluetooth amp (1)
- FreeWheelin left/right speaker communication pods (2)
- 3.5mm audio cable for wired mode (48")
- USB charge cable — Type A USB to 3.5mm plug (36")
- Dual Lock pads — self-adhesive for helmet application (3)
- Amp Dual Lock adapter — for helmets with pointed backs (1)
- Visor clip accessory — for vehicle or desktop use (1)
- User guide



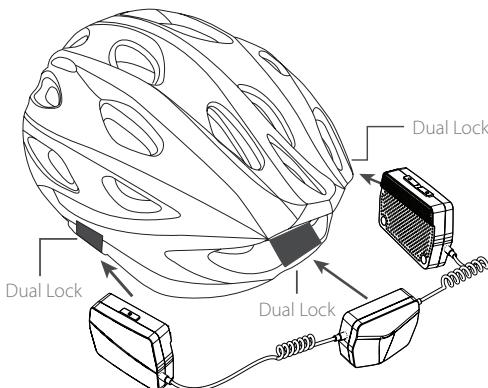
## CHARGING FREEWHEELIN

- 1) Use included USB charge cable
- 2) Connect USB cable to any open USB port on computer
- 3) For faster charge connect to USB/AC wall adapter
- 4) Insert 3.5mm plug into 3.5mm port located at base of FreeWheelin amp (Figure A)
- 5) LED indicator illuminates red while charging (Figure A)
- 6) LED indicator shuts off when FreeWheelin is fully charged in about 1.5 hours



## INSTALLING FREEWHEELIN TO HELMET

- 1) Locate 3 pieces of Dual Lock to be applied to helmet exterior
- 2) Locate installation point for the FreeWheelin amp along rear of the helmet
- 3) Apply 1" square Dual Lock at this location and press firmly for 20-30 seconds. Do not apply Dual Lock to the Styrofoam portion of the helmet
- 4) For helmets with a pointed back — use amp Dual Lock adapter (included)
- 5) Locate left/right ear level installation points for placement of FreeWheelin speaker pods
- 6) Apply  $1\frac{1}{2}$ " x 2" Dual Lock strips along left/right locations and press for 20-30 seconds
- 7) Position FreeWheelin amp over Dual Lock at rear helmet location and press on
- 8) Position FreeWheelin speaker pods over Dual Lock along left/right sides and press on



**Installation Notes:** The amp adapter (Dual Lock with rubber square) provides a flat area for attaching the amp on helmets with pointed backs. Be sure area is completely dry and clean of all dirt, oil, etc. before installing Dual Lock.

To allow proper bond strength for Dual Lock adhesive, do not remove FreeWheelin amp/speaker pods for 24-48 hours when first applied to the helmet. Removing FreeWheelin components sooner may result in Dual Lock strips coming loose.

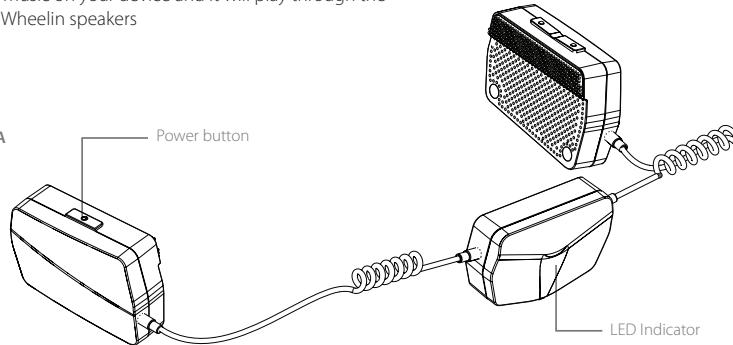
The amp doesn't require a large contact area, so if the Dual Lock is only partially making flat contact, you will find it is still secure.

## PAIRING FREEWHEELIN WITH BLUETOOTH DEVICE

**Note:** See Figure A for location of controls used in the following instructions.

- 1) Make sure FreeWheelin is powered off
- 2) Prepare your device for Bluetooth pairing mode (do not initiate yet)
- 3) Locate Multi Function Button (MFB) atop left FreeWheelin speaker pod
- 4) Press and hold FreeWheelin power button — blue LED illuminates
- 5) Continue to hold until LED flashes blue/red — FreeWheelin is ready to pair with your device
- 6) Initiate pairing mode on your device and it will recognize **FreeWheelin** — then ask it to pair
- 7) There is no code # to enter — when paired, the blue/red LED changes to flashing blue
- 8) FreeWheelin is now powered on and is paired with your device
- 9) Play music on your device and it will play through the FreeWheelin speakers

Figure A



## PAIRING NOTES

FreeWheelin pairing mode lasts 2 minutes — make sure your Bluetooth device is ready to initiate. If pairing is unsuccessful, repeat steps 1-7.

If you have paired many devices with FreeWheelin and experience pairing problems with new devices, you may have reached the maximum number of paired devices.

FreeWheelin pairs up to eight unique devices that are stored in its pairing memory. If you have new devices that you want to pair and have already paired 8 other devices, you can erase all devices from memory in the following steps:

- 1) Make sure FreeWheelin is turned off
- 2) Press & hold the MFB button
- 3) Continue holding the MFB button and press & hold the FORWARD button
- 4) In about 8 seconds the LED indicator illuminates pink
- 5) Pairing memory has now erased

This procedure erases all devices from memory. It does not erase single devices. You can now re-pair any of your original or pair new devices (up to 8 total).

## USING AUDIO CABLE FOR WIRED CONNECTION

- 1) Insert 3.5mm audio cable into any audio device having a 3.5mm stereo output/headphone port
- 2) Insert opposite end of 3.5 audio cable into 3.5mm port located at base of FreeWheelin amp (the charging port is also the audio cable port)
- 3) FreeWheelin automatically powers ON and LED illuminates (no need to press power button)
- 4) Play music from audio device
- 5) Remove cable to automatically power OFF FreeWheelin and save battery power

## POWERING FREEWHEELIN' ON/OFF

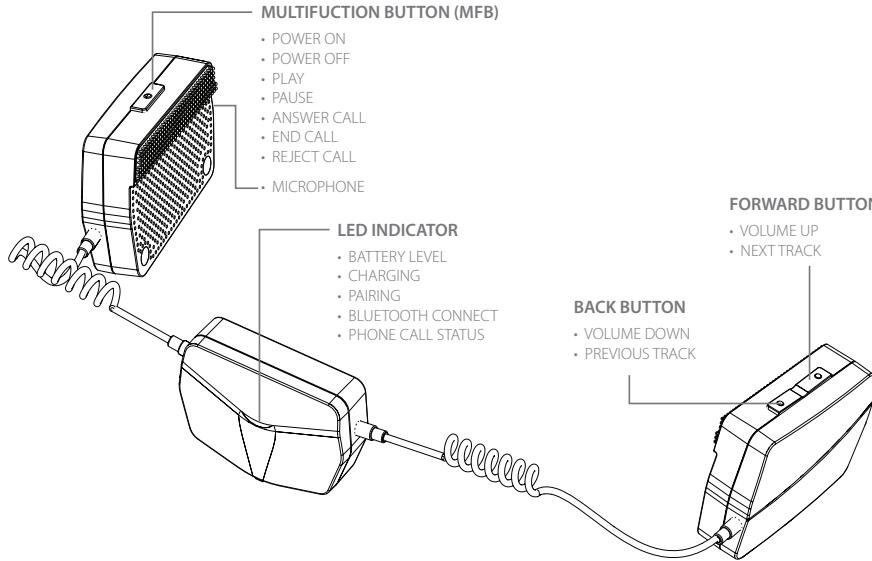
### BLUETOOTH (WIRELESS) MODE

- 1) ON: press/hold FreeWheelin power button on left speaker pod for 3 seconds — LED illuminates
- 2) OFF: press/hold FreeWheelin power button for 3 seconds — LED shuts off

### CABLE (WIRED) MODE

- 1) ON: insert 3.5mm audio cable into 3.5mm port located on FreeWheelin amp — LED illuminates
- 2) OFF: remove 3.5mm audio cable from FreeWheelin amp — LED shuts off

## FREEWHEELIN CONTROLS OVERVIEW



## PLAYING MUSIC

FUNCTION	OPERATION	DEVICE STATUS	INDICATION
PLAY	SHORT PRESS MFB BUTTON	MUSIC PLAYING	SHORT AUDIBLE TONE
PAUSE	SHORT PRESS MFB BUTTON	MUSIC PAUSED	SHORT AUDIBLE TONE
VOLUME UP	SHORT PRESS FORWARD BUTTON	VOLUME INCREASES WHEN MUSIC IS PLAYING	SHORT AUDIBLE TONE WHEN MAX VOLUME IS REACHED
VOLUME DOWN	SHORT PRESS BACK BUTTON	VOLUME DECREASES WHEN MUSIC IS PLAYING	SHORT AUDIBLE TONE WHEN MIN VOLUME IS REACHED
NEXT TRACK	PRESS FORWARD BUTTON 2 SECONDS AND RELEASE	MUSIC ADVANCES TO NEXT TRACK	SHORT AUDIBLE TONE
PREVIOUS TRACK	PRESS BACK BUTTON 2 SECONDS / RELEASE / PRESS 2 SECONDS	MUSIC ADVANCES TO PREVIOUS TRACK	SHORT AUDIBLE TONE

## MAKING CALLS

FUNCTION	OPERATION	DEVICE STATUS	INDICATION
ANSWER CALL	SHORT PRESS MFB BUTTON	RINGING - MUSIC FADES IF PLAYING	SHORT AUDIBLE TONE
END CALL	SHORT PRESS MFB BUTTON	CALL ENDS - MUSIC RETURNS IF PLAYING	SHORT AUDIBLE TONE
REJECT CALL	PRESS MFB BUTTON 2 SECONDS AND RELEASE	CALL WILL NOT BE ANSWERED - MUSIC CONTINUES TO PLAY	SHORT AUDIBLE TONE
VOLUME UP	SHORT PRESS FORWARD BUTTON	CALL VOLUME INCREASES	SHORT AUDIBLE TONE WHEN MAX VOLUME IS REACHED
VOLUME DOWN	SHORT PRESS BACK BUTTON	CALL VOLUME DECREASES	SHORT AUDIBLE TONE WHEN MIN VOLUME IS REACHED
MUTE MICROPHONE	PRESS MFB BUTTON QUICKLY 2X	MICROPHONE MUTES DURING PHONE CONVERSATIONS	SHORT AUDIBLE TONE EVERY 5 SECONDS
CANCEL MICROPHONE MUTE	PRESS MFB BUTTON QUICKLY 2X	CANCELS MICROPHONE MUTE DURING PHONE CONVERSATIONS	RECEIVING CALL PARTY CAN HEAR CONVERSATION
SWITCH CONVERSATIONS BETWEEN FREEWHEELIN AND CELL PHONE	PRESS/HOLD MFB BUTTON AND RELEASE WHEN AUDIBLE TONE IS HEARD	CONVERSATION MODE SWITCHES TO CELL PHONE	SHORT AUDIBLE TONE

## CHARGING

LED INDICATOR	FREEWHEELIN STATUS
RED LED ON	CHARGING
RED LED OFF	DEVICE IS FULLY CHARGED

## PAIRING AND BLUETOOTH

LED INDICATOR	FREEWHEELIN STATUS
RED/BLUE LEDS FLASH ALTERNATELY	IN PAIRING MODE
BLUE LED FLASHES 2X EVERY 2 SECONDS	STANDBY MODE – PAIRED NOT CONNECTED TO HOST
BLUE LED FLASHES 2X EVERY 4 SECONDS	CONNECTED TO HOST DEVICE AS HEADSET ONLY (PHONE DOES NOT SUPPORT A2DP MUSIC)
BLUE LED FLASHES 2X EVERY 4 SECONDS	CONNECTED TO A NON-PHONE DEVICE THAT SUPPORTS A2DP MUSIC (IPAD, ETC.)
BLUE LED FLASHES 3X EVERY 4 SECONDS	CONNECTED TO HOST DEVICE AS HEADSET THAT SUPPORTS MUSIC (PHONE, ETC.)
BLUE LED FLASHES RAPIDLY	INCOMING PHONE CALL
RED LED FLASHES 1X EVERY 2 SECONDS	PHONE CALL IN PROGRESS
RED LED FLASHES 1X EVERY 2 SECONDS	RECHARGING

## TONES

TONE INDICATOR	FREEWHEELIN STATUS
ASCENDING AUDIBLE TONES	POWERING ON
DESCENDING AUDIBLE TONES	POWERING OFF
TWO TONES EVERY 2 SECONDS	IN CONVERSATION MODE WITH MICROPHONE MUTED
AUDIBLE TONE EVERY 20 SECONDS	LOW POWER - DEVICE NEEDS RECHARGING

## USING VISOR CLIP ACCESSORY FOR VEHICLE OR DESKTOP

- 1) Attach FreeWheelin amp and left/right speaker pods to visor clip accessory (Figure B)
- 2) Use on vehicle visor as shown for hands-free calls while driving (Figure B)
- 3) Use on desktop as shown for speaker phone and music listening (Figure C)

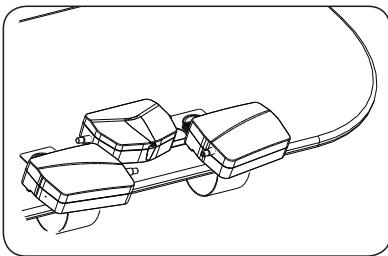


Figure B

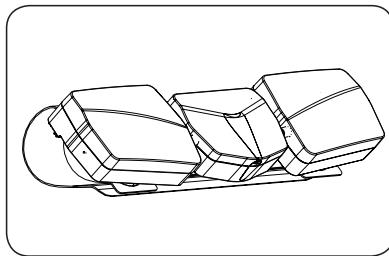


Figure C

## CARE

Clean using soft cloth. Avoid chemicals and detergents. Do not disassemble or drop this device.

***Note: Please use caution and remain alert at all times while using this device. Use of this device at excessive volume may cause permanent hearing damage. Always turn the volume down before use.***

## SPECIFICATIONS

<b>AUDIO</b>	
Amp Type	Class D
Impedance	4 Ohm
Output	2W RMS
Total Harmonic Distortion	0.50%
Speaker sensitivity	85
Signal-to-Noise Ratio	80dB
Response Bandwidth	20-20000 Hz
<b>BLUETOOTH</b>	
Bluetooth Class	V2.1 + EDR CLASS II
Frequency Band	2.4 GHz ISM Band
Range	10 Meters
Protocols Supported	A2DP (Stereo Audio) HFP (Hands Free Protocol) HSP (Head Set Protocol) AVRCP (Remote Control)
<b>BLUETOOTH PAIRING</b>	
Number of Paired Devices	8
<b>INTEGRATED MICROPHONE</b>	
Type	4mm Omni-Directional
Sensitivity	-37dB + /-3dB (1KHz, 0dB = 1V/Pa)
Noise Suppression	Yes - CSR CVC (Clear Voice Capture)
Wind Noise Reduction	
Echo Cancellation	
AGC (Automatic Gain Control)	

# FREEWHEELIN

Audio System for **Helmets** | **Vehicles** | **Desktop**

BATTERY	
Music Play Time (Using Cable)	Up to 40 Hours*
Music Play (Using Bluetooth)	Up to 15 Hours*
Talk Time	Up to 15 Hours*
Standby Time	Up to 500 Hours*
Charging Time	1.5 Hour (From Fully Discharged Battery)
Charging Voltage Level	5V DC (USB Level)
Battery Type	450 mAh Lithium Polymer

\* May vary depending on usage and device

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications to device will void the user's authority to operate the device. The battery is recycled. Do not dispose of the battery in fire as it may cause explosion.

*This equipment is portable device. The output power of this device is less than 20mW.  
The SAR test is not required.*

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Due to the used enclosure material, the device shall only be connected to a USB

Interface of version 2.0 or higher. The connection to so called power USB is prohibited.

*This device complies with Industry Canada licence-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.*

*Works with iPhone, iPod and any brand of Bluetooth®-enabled compatible phone or music device that supports Advanced Audio Distribution Profile (A2DP) and Audio Video Remote Control Profile (AVRCP).*

*iPod and iPhone are trademarks of Apple, Inc., registered in the U.S. and other countries.*

## **USING AND CHARGING TEMPERATURE**

Do not use freewheeling in the environment at too high or too low temperature, never expose the mobile phone under strong sunshine or too wet environment. The suitable temperature for the phone and accessories is 0°C - 40°C.

When charging, please place the FreeWheelin in an environment that has a normal room temperature and good ventilation. It is recommended to charge the phone in an environment with a temperature that ranges from 5°C - 25°C. Please ensure to use only the charger offered by the manufacturer.

Using unauthorized charger may cause danger and violate the authorization of the phone and the guarantee article.

The maximum operating ambient temperature of the equipment declared by the manufacturer is 40°C.

## **LIMITED WARRANTY**

FreeWheelin has a one-year warranty against defects in material or workmanship. Questions? Please email us at: [FreeWheelinHelp@gmail.com](mailto:FreeWheelinHelp@gmail.com)



Audio System for **Helmets** | **Vehicles** | **Desktop**

## EU Regulatory Conformance

Hereby, BST Enterprises, Inc. declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. For the declaration of conformity, visit the Web site [www.soundryderaudio.com](http://www.soundryderaudio.com)

Notice: Observe the national local regulations in the location where the device is to be used.  
This device may be restricted for use in some or all member states of the European Union (EU)

# FREEWHEELIN

Audio System for **Helmets** | **Vehicles** | **Desktop**

## NOTES

**FREEWHEELIN**  
Audio System for **Helmets** | **Vehicles** | **Desktop**

## NOTES



Audio System for **Helmets** | **Vehicles** | **Desktop**

## NOTES

# **FREEWHEELIN**

Audio System for **Helmets** | **Vehicles** | **Desktop**

**SoundRyder Audio**  
BST Enterprises, Inc.

17801 South Susana Rd, Rancho Dominguez, CA, 90221 USA