

Ex. 084-B6 – Invalidity of the '084 Patent in view of AfterShokz AS800

This chart is subject to all reservations, objections, and disclaimers in Mojawa’s Invalidity Contentions and any amendment, supplement, or modification thereof, which are incorporated herein by reference in their entirety.

AfterShokz AS800 qualifies as prior art to U.S. Patent No. 11,197,084 (“the 084 patent”) at least under post-AIA 35 U.S.C. §§ 102 and/or 103. AfterShokz AS800 was sold publicly in or before July 2019.

AfterShokz AS800 discloses certain elements of the Asserted Claims of the '084 patent (claims 1, 7, 8, 9, 10, 11, 12, 13, 14, and/or 15 as set forth in Plaintiff’s Identification of Asserted Claims served on May 29, 2025). To the extent it is found AfterShokz AS800 does not expressly disclose certain limitations in the Asserted Claims, such limitations are at least implicitly or inherently disclosed. Moreover, to the extent it is found that AfterShokz AS800 does not disclose the Asserted Claims, AfterShokz AS800 renders obvious the Asserted Claims, either alone or in combination with one or more of the prior art references identified in Mojawa’s cover pleading and other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.

In these contentions, Mojawa has relied in part on Plaintiff’s infringement contentions. In those contentions, Plaintiff appears to pursue overly broad claim constructions in an effort to assert infringement where none exists, and to accuse products that do not infringe the claims. Mojawa’s assertion that a particular limitation is disclosed by a prior art reference and/or is disclosed in a particular manner may be based in part on Plaintiff’s apparent claim interpretations. In relying on Plaintiff’s apparent claim interpretations, Mojawa does not admit that Plaintiff’s apparent claim interpretations are supportable or proper or that the claim limitations in question are definite or otherwise amenable to construction.

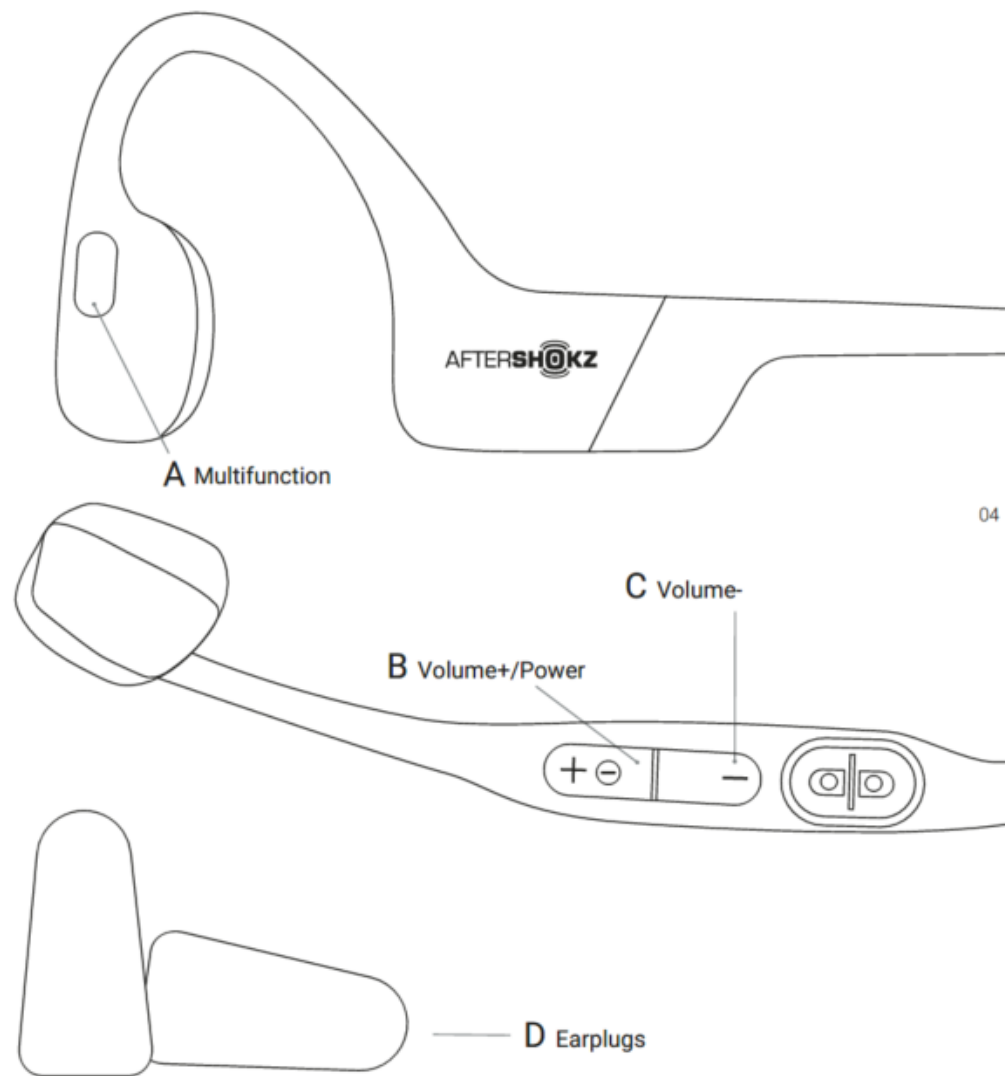
In addition, citations to portions of any reference in this chart are examples only. Mojawa will rely on the entirety of the reference cited in this chart to show that the Asserted Claims are invalid.

Mojawa’s prior art invalidity contentions may reflect alternative positions as to claim construction and scope and do not represent any admissions or agreement by Mojawa as to the construction meaning, scope, definiteness, function, structure, written description support for, or enablement of any claim contained herein. Mojawa’s contentions herein are not, and should in no way be seen as, any admission that Mojawa’s accused technology meets any limitations of the claims.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
[1pre] A loudspeaker apparatus, comprising:	To the extent the preamble is limiting, AfterShokz AS800 expressly or inherently discloses “[a] loudspeaker apparatus.” For example:

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.

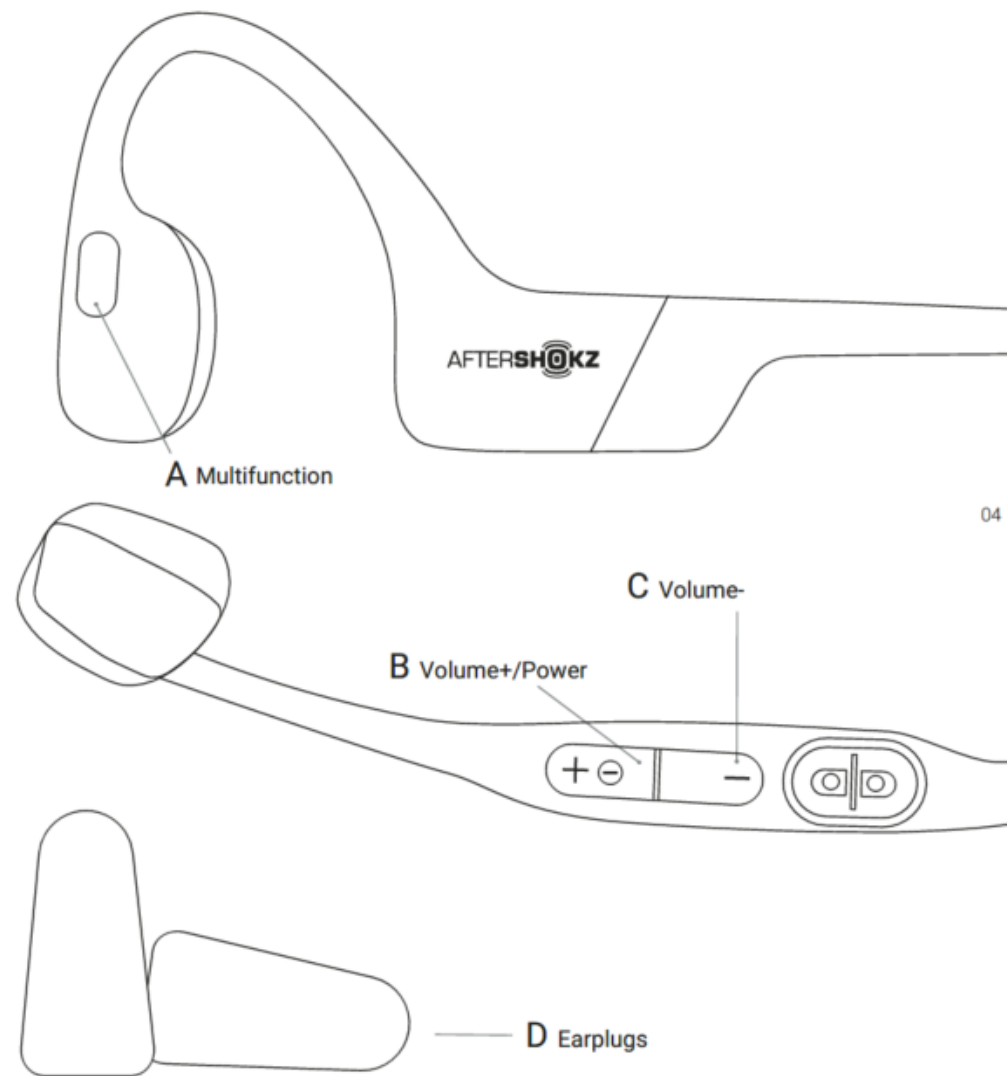


AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
			105 ± 3dB
	Bluetooth® version	Bluetooth® v5.0	Microphone
			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
AfterShokz AS800 User Guide, 6-7.			
To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in			

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[1a] an ear hook including a first plug end and a second plug end,	AfterShokz AS800 expressly or inherently discloses “an ear hook including a first plug end and a second plug end.” For example:  AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 The diagram shows a side profile of the AfterShokz AS800 headset. It features a black, curved neckband. At the top, there are two circular earpads. Two lines point to these earpads, labeled 'Microphone 2' (pointing to the upper earpad) and 'Microphone 1' (pointing to the lower earpad). On the side of the neckband, there are several controls: a small circular 'LED Indicator', a 'Power/Volume+ Button' with a plus sign, a 'Volume- Button' with a minus sign, and a 'Magnetic Charging Port' at the bottom. A small number '02' is visible to the right of the neckband. AfterShokz AS800 User Guide, 2.

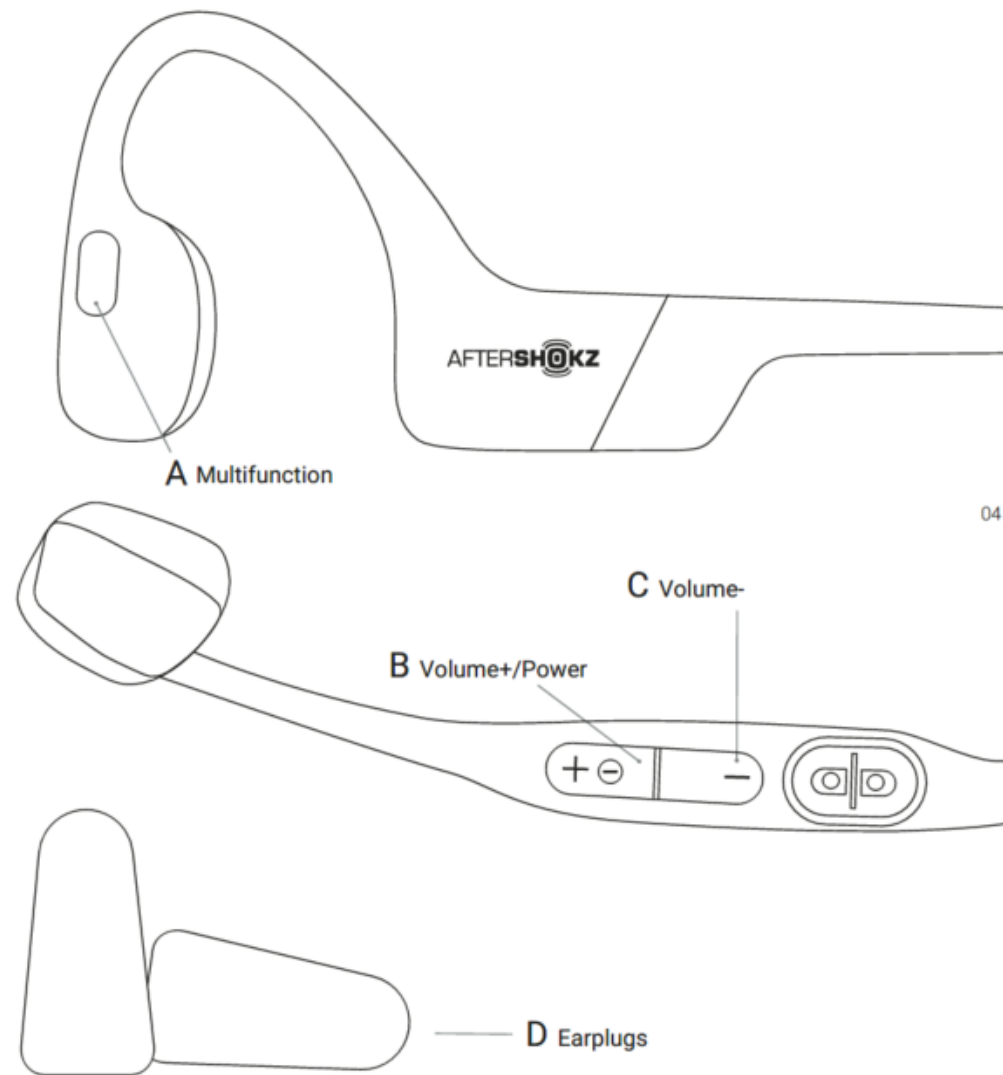


AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
			105 ± 3dB
	Bluetooth® version	Bluetooth® v5.0	Microphone
			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
AfterShokz AS800 User Guide, 6-7.			
To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in			

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[1b] the ear hook being surrounded by a protective sleeve, the protective sleeve being made of an elastic waterproof material;	AfterShokz AS800 expressly or inherently discloses “the ear hook being surrounded by a protective sleeve, the protective sleeve being made of an elastic waterproof material.” For example:  AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.

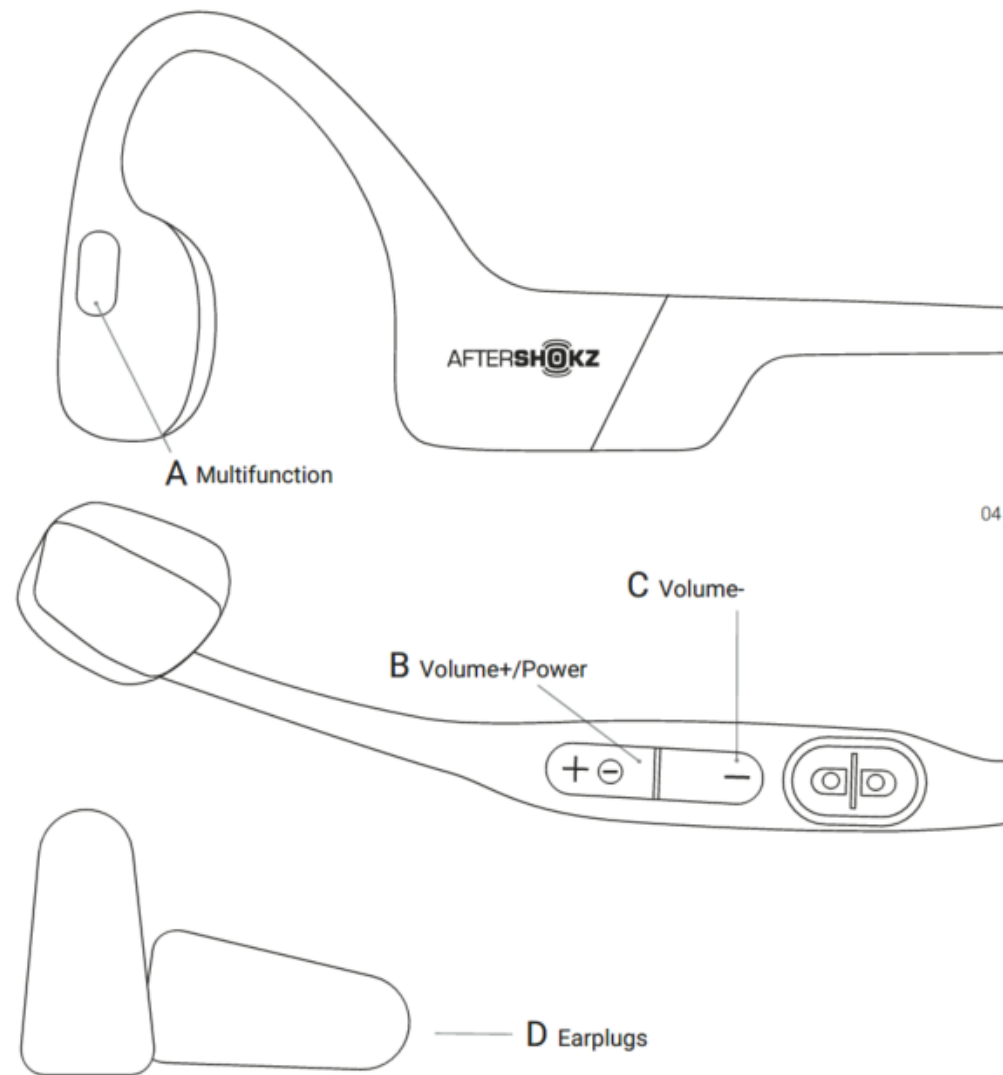


AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
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			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
	AfterShokz AS800 User Guide, 6-7.		
	To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.		

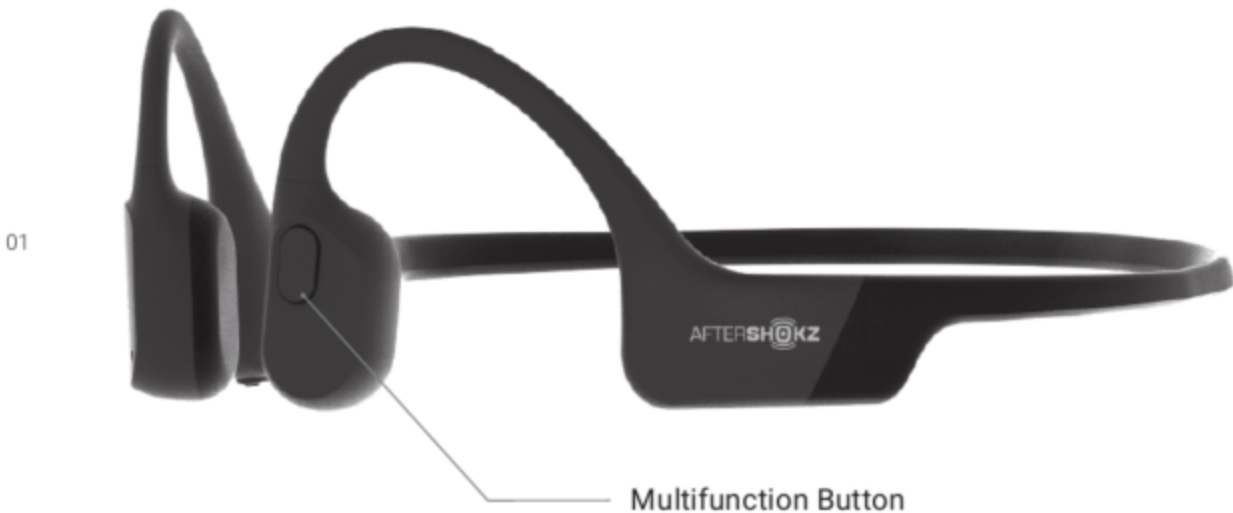
U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
[1c] a core housing for accommodating an earphone core, the core housing being fixed to the first plug end and elastically abutted against the protective sleeve; and	AfterShokz AS800 expressly or inherently discloses “a core housing for accommodating an earphone core, the core housing being fixed to the first plug end and elastically abutted against the protective sleeve.” For example:  AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.

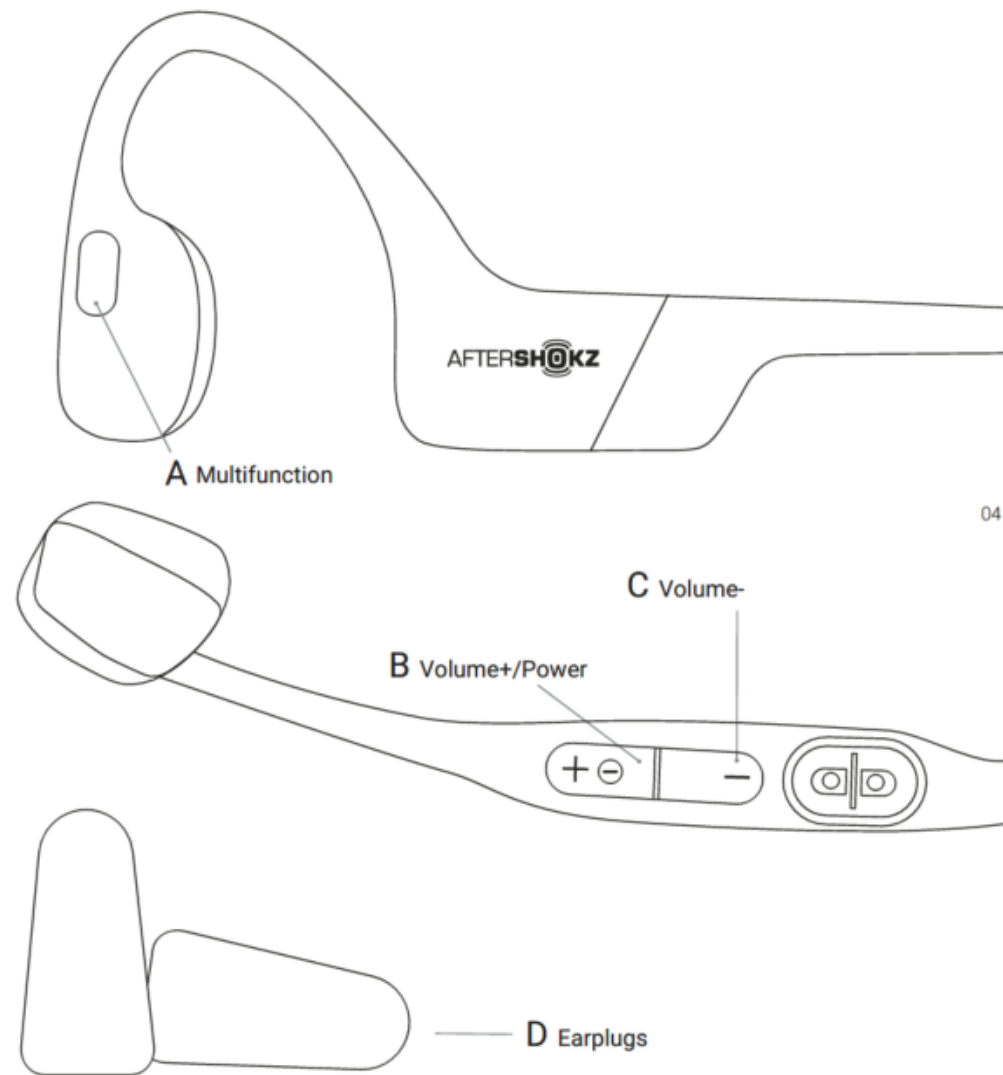


AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
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			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
	AfterShokz AS800 User Guide, 6-7.		
	To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.		

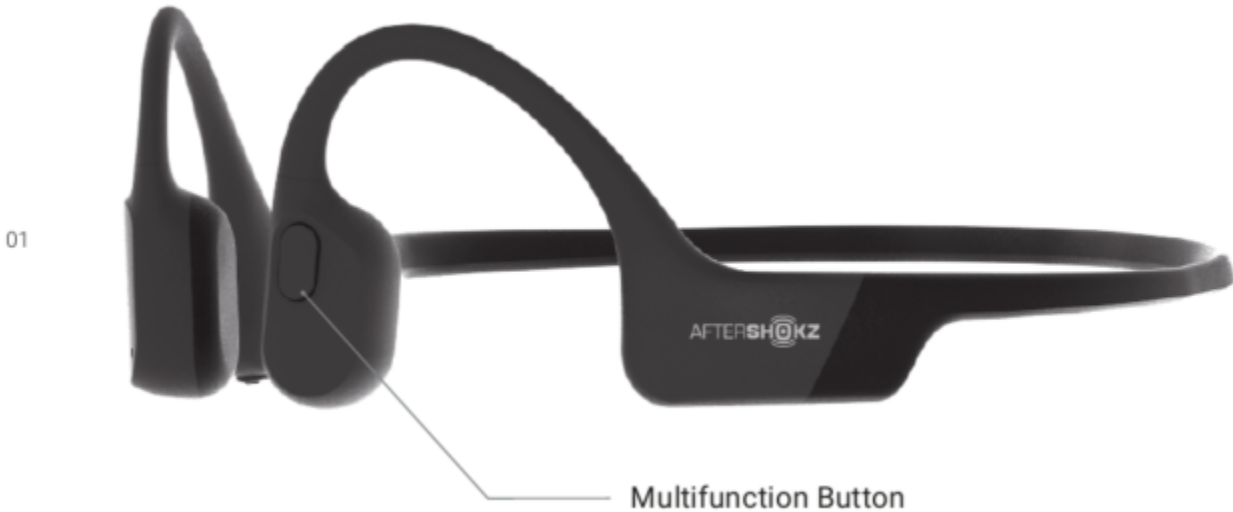
U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
[1d] a circuit housing for accommodating a control circuit or a battery, the circuit housing being fixed to the second plug end, the control circuit or the battery driving the earphone core to vibrate,	AfterShokz AS800 expressly or inherently discloses “a circuit housing for accommodating a control circuit or a battery, the circuit housing being fixed to the second plug end, the control circuit or the battery driving the earphone core to vibrate.” For example:  AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.

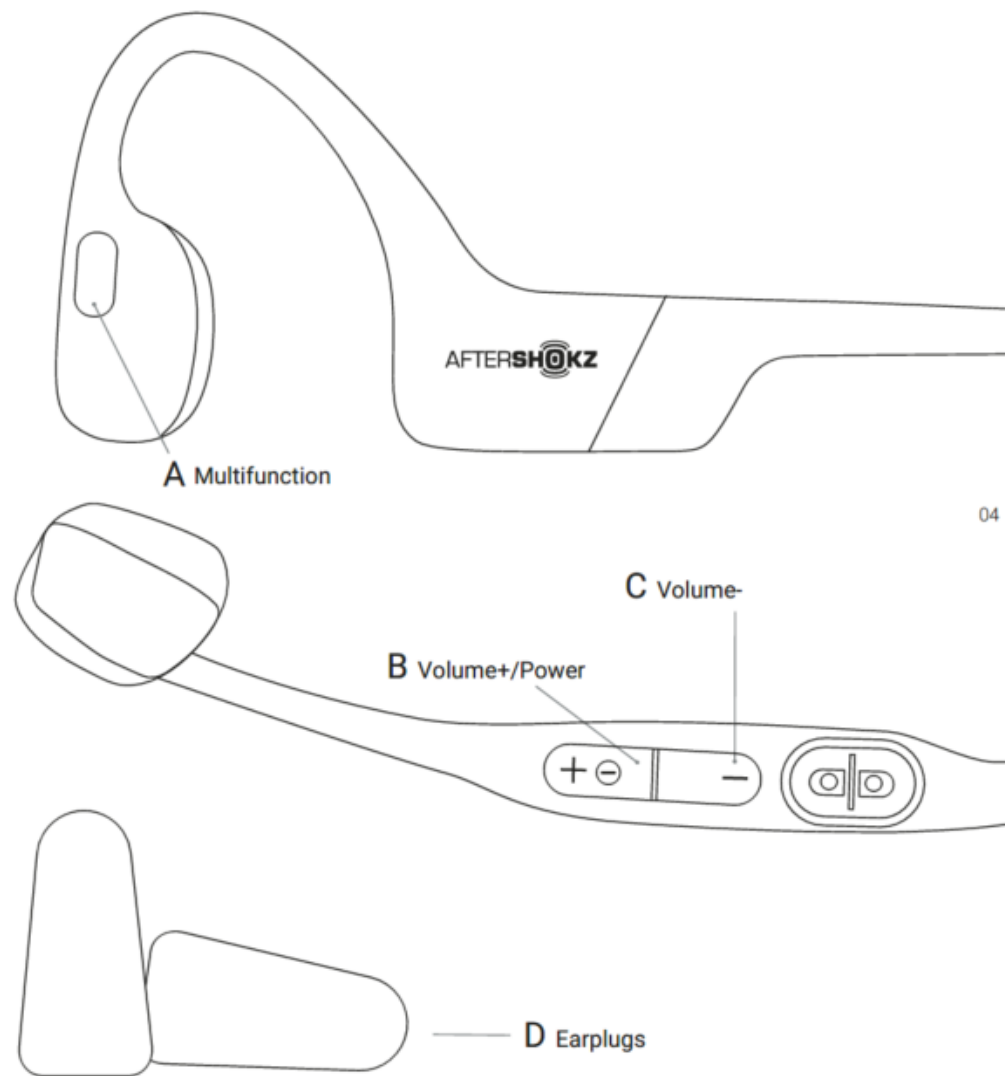


AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
			105 ± 3dB
	Bluetooth® version	Bluetooth® v5.0	Microphone
			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
	AfterShokz AS800 User Guide, 6-7.		
	To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in		

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[1e] the vibration of the earphone core generating a driving force to drive a housing panel of the core housing to vibrate, the driving force being not parallel to a normal line of the housing panel.	AfterShokz AS800 expressly or inherently discloses “the vibration of the earphone core generating a driving force to drive a housing panel of the core housing to vibrate, the driving force being not parallel to a normal line of the housing panel.” For example:  AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.

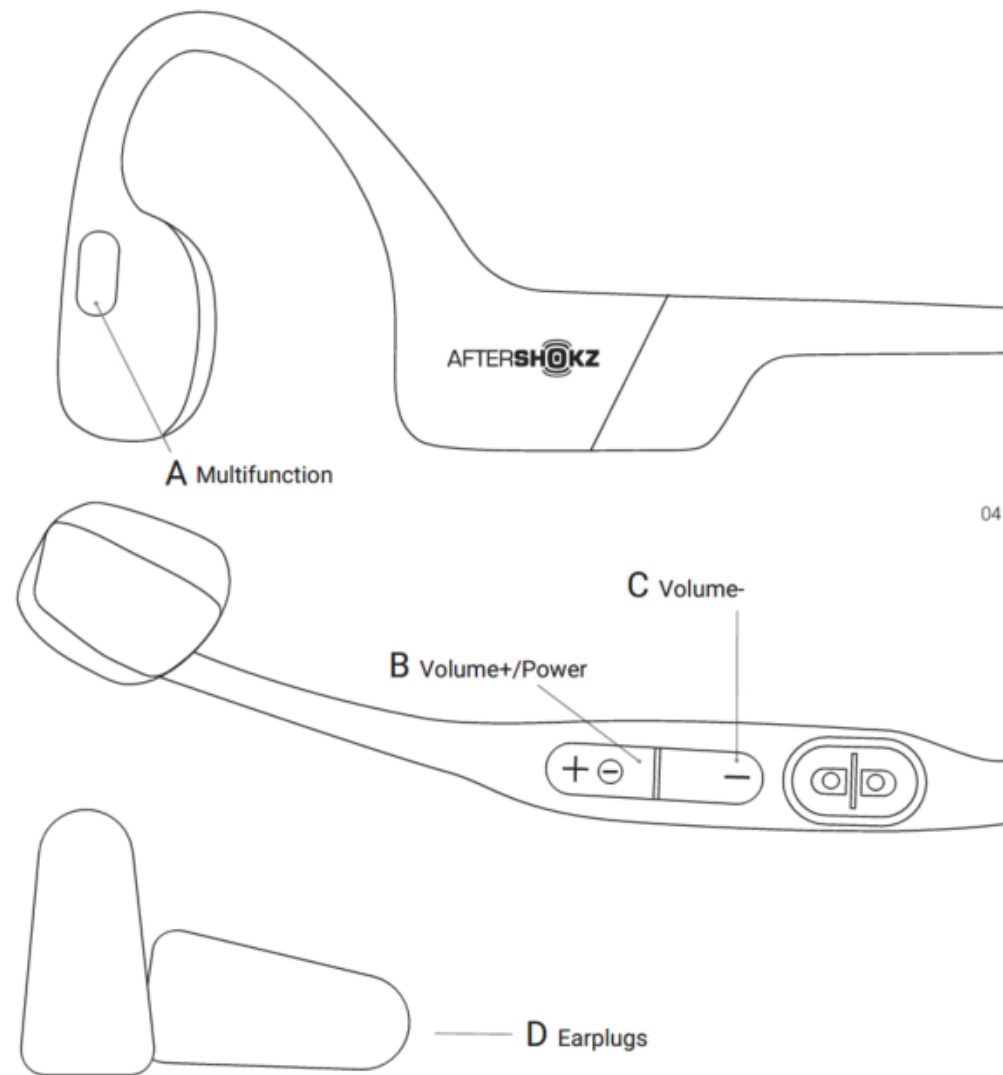


AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
			105 ± 3dB
	Bluetooth® version	Bluetooth® v5.0	Microphone
			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
	AfterShokz AS800 User Guide, 6-7.		
	A POSITA would understand the “normal line” in AfterShokz AS800 to be one example of a normal line because the housing panel used to contact the user’s body in AfterShokz AS800 is non-planar (has a curvature). A POSITA would understand the normal line may be determined by selecting a certain point in an area when the panel is in contact with human skin, determining a tangent plane of the panel at the selected point, and determining a straight line that passes through the point and is perpendicular to the tangent plane, and designating the straight line as the normal line of the panel. <i>See, e.g.,</i> ’084 Patent, 19:32-20:14. A		

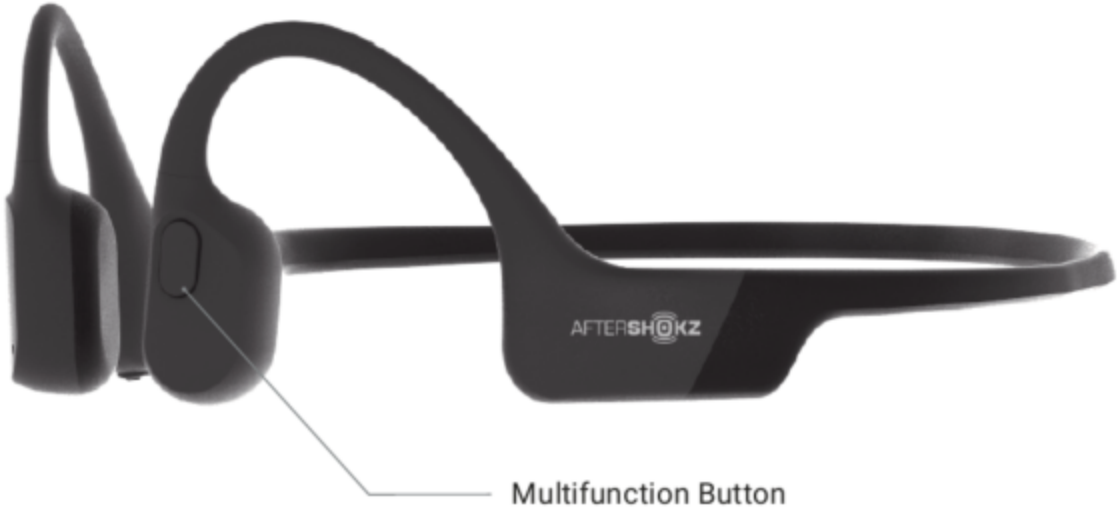
U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	POSTIA would therefore understand that when the panel used to contact the user’s body is non-planar like in AfterShokz AS800, different points correspond to different tangent planes of the panel, and the determined normal line may also be different. Therefore, the example “normal line” is just one example of a normal line in AfterShokz AS800. To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[7pre] The loudspeaker apparatus of claim 1, wherein	AfterShokz AS800 expressly or inherently discloses “[t]he loudspeaker apparatus of claim 1.” <i>See</i> above at rows 1pre–1e.
[7a] the core housing is arranged with a first socket connecting with an outer end surface of the core housing,	AfterShokz AS800 expressly or inherently discloses “the core housing is arranged with a first socket connecting with an outer end surface of the core housing.” For example:  AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.

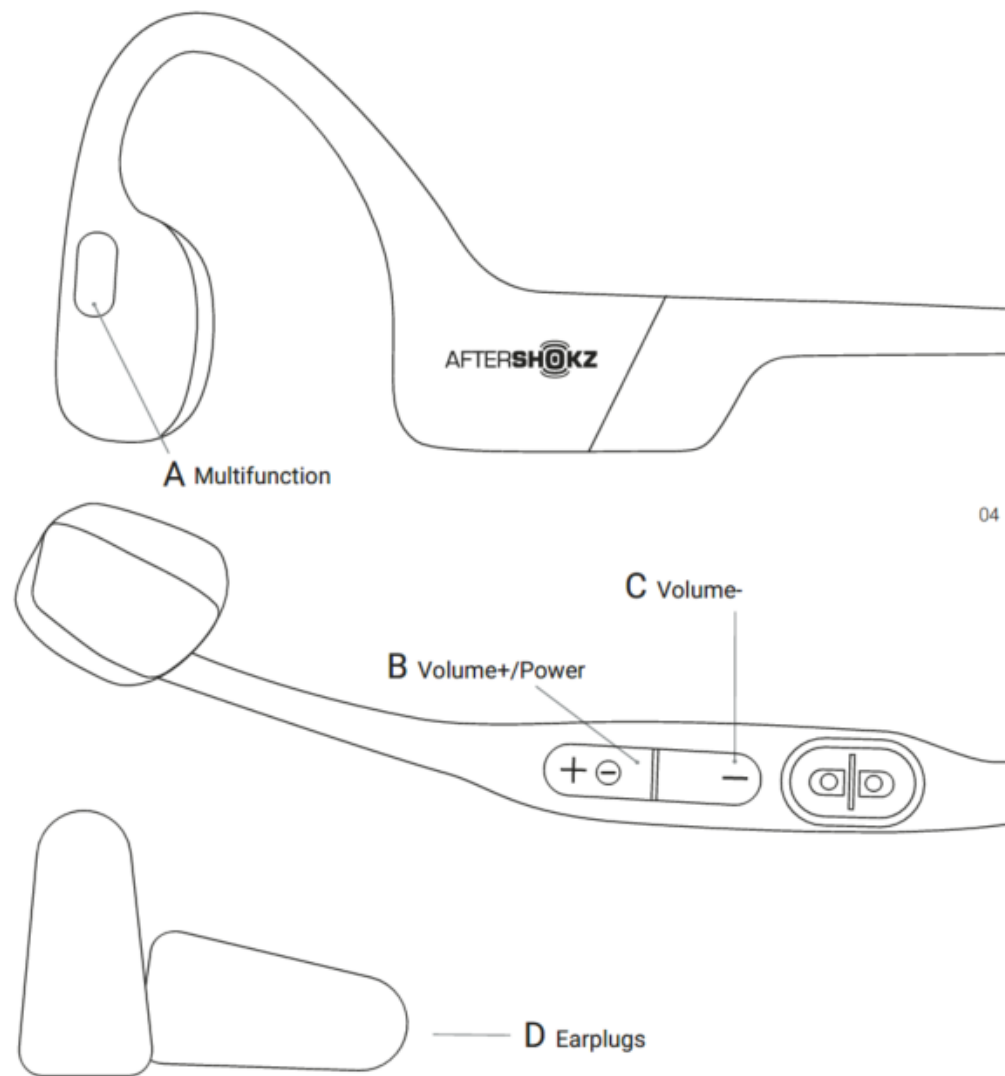


AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800			
	Specifications			
	Part numberAS800		Frequency response20Hz~20kHz	
	Speaker typeBone conduction transducer		Sensitivity105 ± 3dB	
	Bluetooth® versionBluetooth® v5.0		Microphone-38dB ± 3dB	
	Wireless range10 m		BatteryLi-Polymer battery	
	Compatible profilesA2DP, AVRCP, HSP, HFP		Weight26 g	
	Continuous playUp to 8 hours		Standby timeUp to 10 days	
	Charge time2 hours		Warranty2 years	
	Frequency band2402MHz~2480MHz		Maximum RF output power5dBm	
	Charge voltage5V±5%		Water resistanceIP67	
	Battery capacity145 mAh			
	AfterShokz AS800 User Guide, 6-7.			
	To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in			

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[7b] a stopping block is arranged on an inner sidewall of the first socket, and	AfterShokz AS800 expressly or inherently discloses “a stopping block is arranged on an inner sidewall of the first socket.” For example: To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[7c] the first socket is connected to the first plug end.	AfterShokz AS800 expressly or inherently discloses “the first socket is connected to the first plug end.” For example:  The diagram shows a side profile of the AfterShokz AS800 bone conduction headset. A label '01' points to a small, circular button located on the side of the ear cup. Another label 'Multifunction Button' with a leader line points to the same button. The brand name 'AFTERSHOKZ' is visible on the side of the headband. AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.



AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
			105 ± 3dB
	Bluetooth® version	Bluetooth® v5.0	Microphone
			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
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	Charge time	2 hours	Warranty
			2 years
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			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
AfterShokz AS800 User Guide, 6-7.			
To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.			

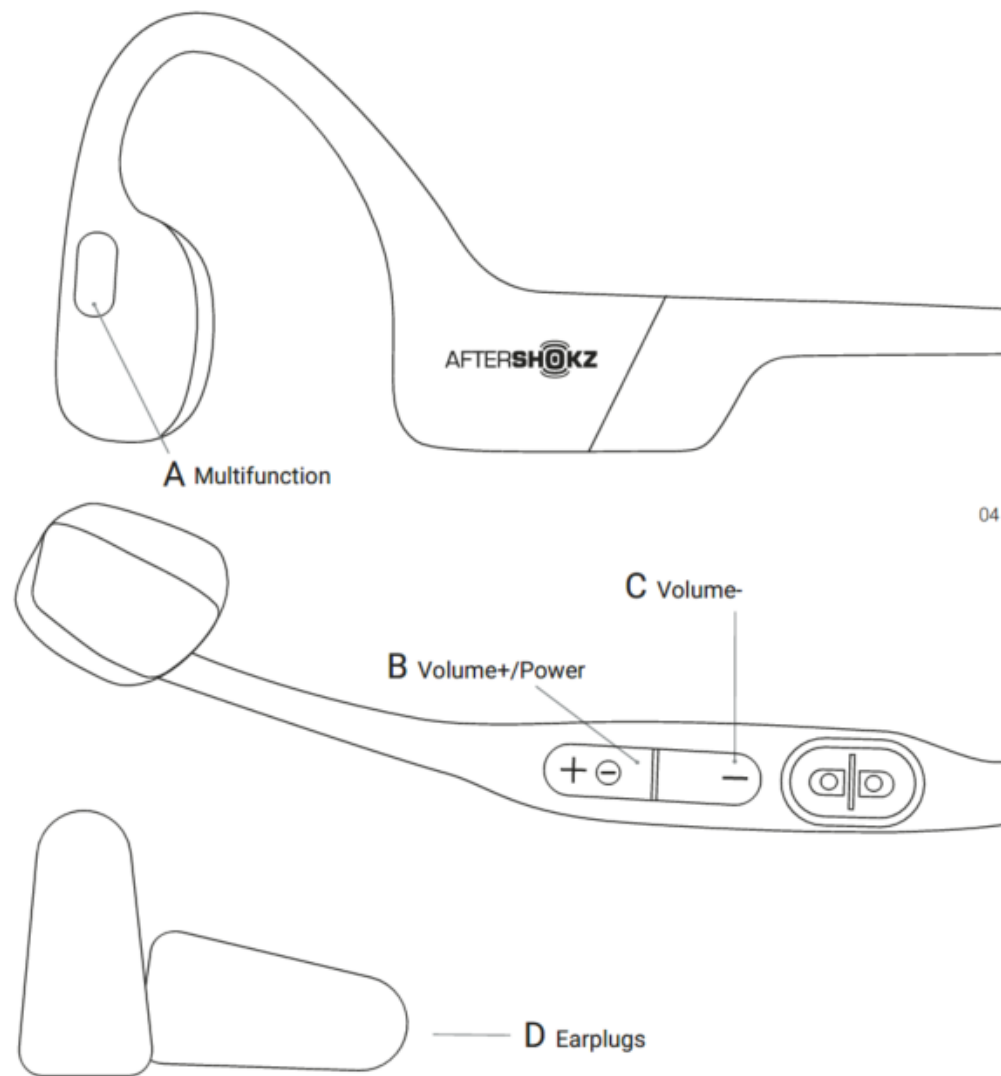
U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
[8pre] The loudspeaker apparatus of claim 7, wherein the first plug end includes:	AfterShokz AS800 expressly or inherently discloses “[t]he loudspeaker apparatus of claim 7.” <i>See</i> above at rows 7pre–7c. To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[8a] an inserting portion being at least partially inserted into the first socket and abutting against an outer side surface of the stopping block; and	AfterShokz AS800 expressly or inherently discloses “an inserting portion being at least partially inserted into the first socket and abutting against an outer side surface of the stopping block.” For example: To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[8b] two elastic hooks being arranged on a side of the inserting portion facing inside of the core housing, wherein:	AfterShokz AS800 expressly or inherently discloses “two elastic hooks being arranged on a side of the inserting portion facing inside of the core housing.” For example: To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[8c] the two elastic hooks are brought together under action of external thrust and the stopping block, and after passing through the stopping block, the two elastic hooks are elastically restored to be	AfterShokz AS800 expressly or inherently discloses “the two elastic hooks are brought together under action of external thrust and the stopping block, and after passing through the stopping block, the two elastic hooks are elastically restored to be stuck on an inner surface of the stopping block to realize the fixation of the core housing and the first plug end.” For example: To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
stuck on an inner surface of the stopping block to realize the fixation of the core housing and the first plug end.	been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[9pre] The loudspeaker apparatus of claim 8, wherein	AfterShokz AS800 expressly or inherently discloses “[t]he loudspeaker apparatus of claim 8.” <i>See</i> above at rows 8pre–8c.
[9a] the inserting portion is partially inserted into the first socket, and	AfterShokz AS800 expressly or inherently discloses “the inserting portion is partially inserted into the first socket.” For example: To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[9b] an exposed part of the inserting portion is arranged in a stepped manner to form an annular table surface spaced apart from the outer end surface of the core housing.	AfterShokz AS800 expressly or inherently discloses “an exposed part of the inserting portion is arranged in a stepped manner to form an annular table surface spaced apart from the outer end surface of the core housing.” For example: To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[10pre] The loudspeaker apparatus of claim 9, wherein	AfterShokz AS800 expressly or inherently discloses “[t]he loudspeaker apparatus of claim 9.” <i>See</i> above at rows 9pre–9b.
[10a] the protective sleeve further extends to a side of the annular	AfterShokz AS800 expressly or inherently discloses “the protective sleeve further extends to a side of the annular table surface facing the outer end surface of the core housing.” For example:

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
table surface facing the outer end surface of the core housing, and	To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[10b] when the core housing and the first plug end are fixed, the protective sleeve elastically abuts against the core housing to realize sealing.	AfterShokz AS800 expressly or inherently discloses “when the core housing and the first plug end are fixed, the protective sleeve elastically abuts against the core housing to realize sealing.” For example: To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[11pre] The loudspeaker apparatus of claim 1, wherein	AfterShokz AS800 expressly or inherently discloses “[t]he loudspeaker apparatus of claim 1.” <i>See</i> above at rows 1pre–1e.
[11a] the ear hook further includes a housing sheath integrally formed with the protective sleeve, the housing sheath being wrapped around periphery of the circuit housing.	AfterShokz AS800 expressly or inherently discloses “the ear hook further includes a housing sheath integrally formed with the protective sleeve, the housing sheath being wrapped around periphery of the circuit housing.” For example:

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 01 Multifunction Button AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.

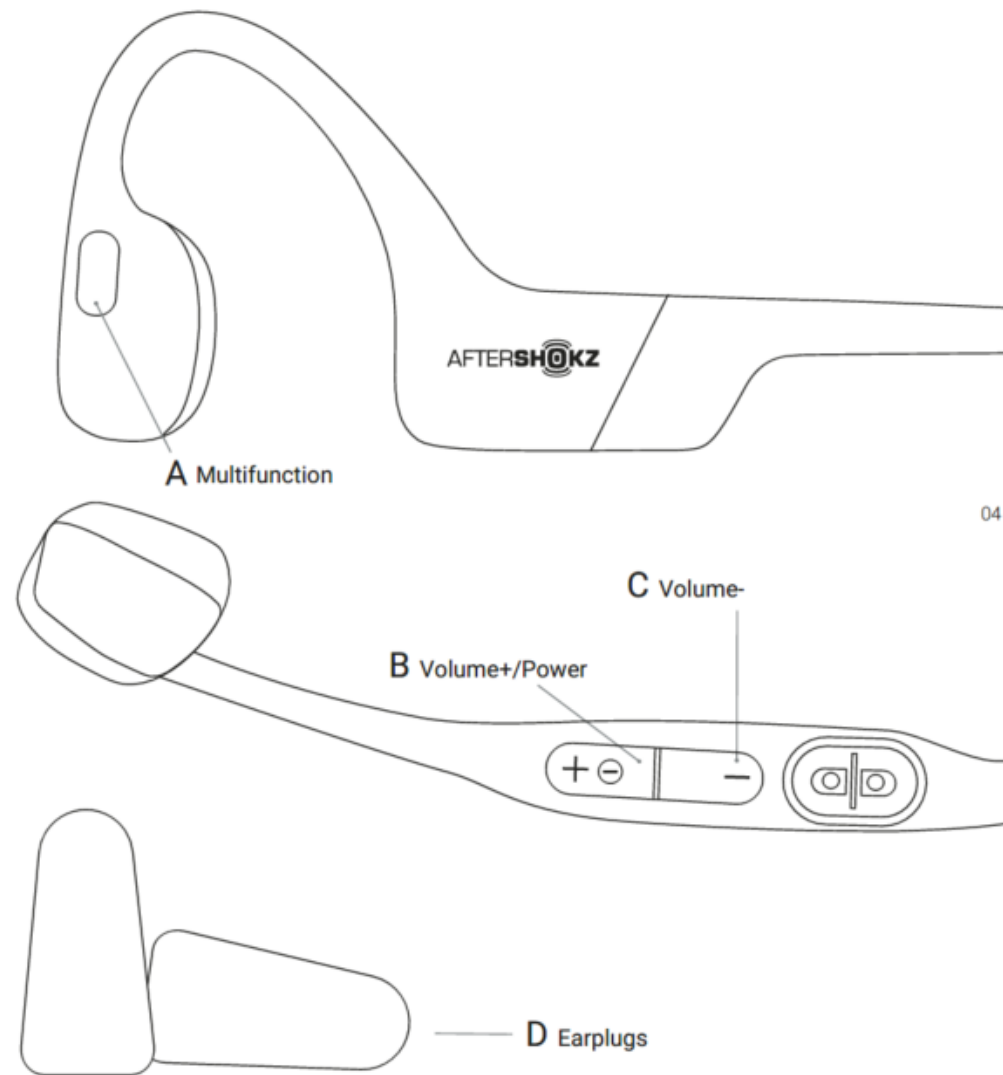


AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
			105 ± 3dB
	Bluetooth® version	Bluetooth® v5.0	Microphone
			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
AfterShokz AS800 User Guide, 6-7.			
To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.			

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
[12pre] The loudspeaker apparatus of claim 1, wherein	AfterShokz AS800 expressly or inherently discloses “[t]he loudspeaker apparatus of claim 1.” <i>See</i> above at rows 1pre–1e.
[12a] the housing panel and the earphone core are in a transmission connection, and	AfterShokz AS800 expressly or inherently discloses “the housing panel and the earphone core are in a transmission connection.” For example:  Multifunction Button AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.

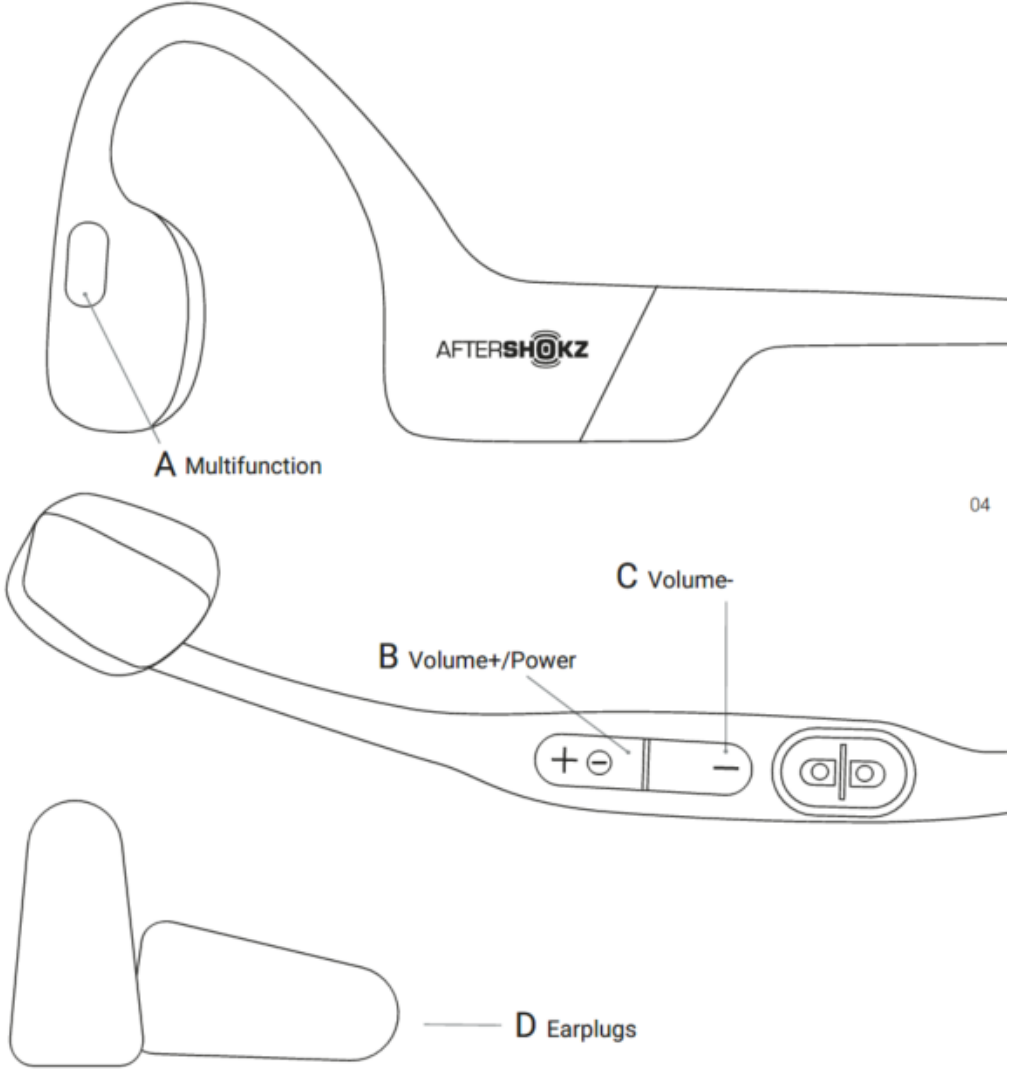


AfterShokz AS800 User Guide, 4.

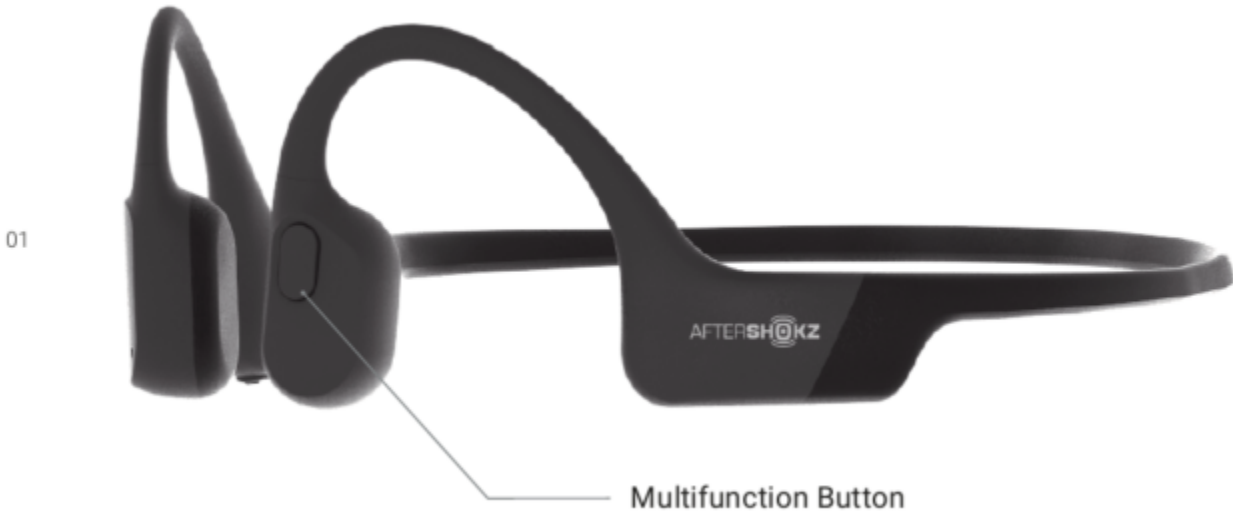
U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
			105 ± 3dB
	Bluetooth® version	Bluetooth® v5.0	Microphone
			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
	AfterShokz AS800 User Guide, 6-7.		
	To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.		

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
[12b] all or part of the housing panel is used to contact or abut a user's body to conduct a sound generated by the vibration of the earphone core.	AfterShokz AS800 expressly or inherently discloses “all or part of the housing panel is used to contact or abut a user's body to conduct a sound generated by the vibration of the earphone core.” For example:  01 Multifunction Button AfterShokz AS800 User Guide, 1.

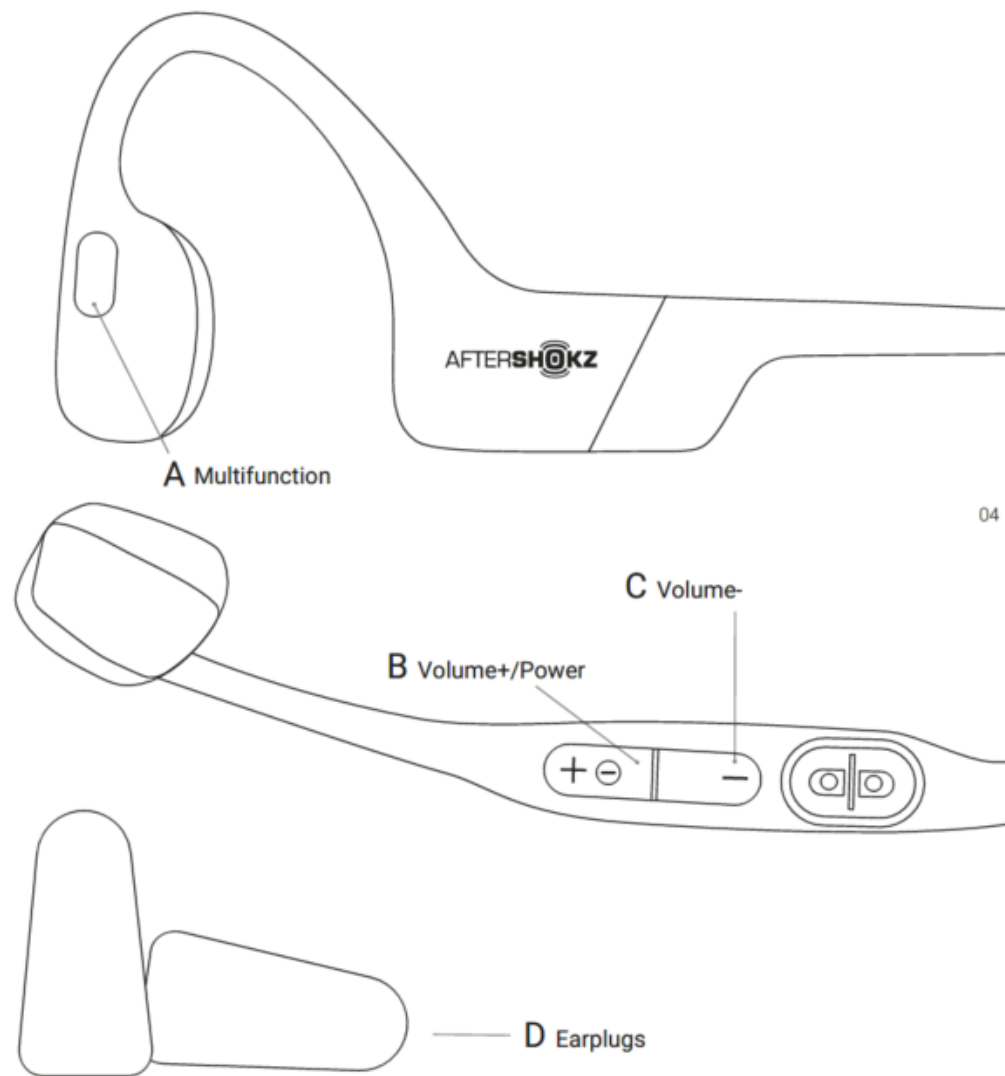
U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 The diagram illustrates the AfterShokz AS800 bone conduction headset. It includes three views: a side profile, a top-down view of the control area, and a view of the earplugs. Labels point to specific features: 'A Multifunction' points to a small oval button on the side of the earpiece; 'B Volume+/Power' points to a button with a '+' and '-' symbol; 'C Volume-' points to a button with a '-' symbol; and 'D Earplugs' points to the two earplugs shown at the bottom. The brand name 'AFTERSHOKZ' is visible on the side of the headset. A small number '04' is located near the top right of the headset. AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
			105 ± 3dB
	Bluetooth® version	Bluetooth® v5.0	Microphone
			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
AfterShokz AS800 User Guide, 6-7.			
To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.			

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
[13pre] The loudspeaker apparatus of claim 12, wherein	AfterShokz AS800 expressly or inherently discloses “[t]he loudspeaker apparatus of claim 12.” <i>See</i> above at rows 12pre–12b.
[13a] when a straight line of the driving force has a positive direction pointing to outside of the loudspeaker apparatus from the housing panel and the normal line has a positive direction pointing to the outside of the loudspeaker apparatus,	AfterShokz AS800 expressly or inherently discloses “when a straight line of the driving force has a positive direction pointing to outside of the loudspeaker apparatus from the housing panel and the normal line has a positive direction pointing to the outside of the loudspeaker apparatus.” For example:  AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.

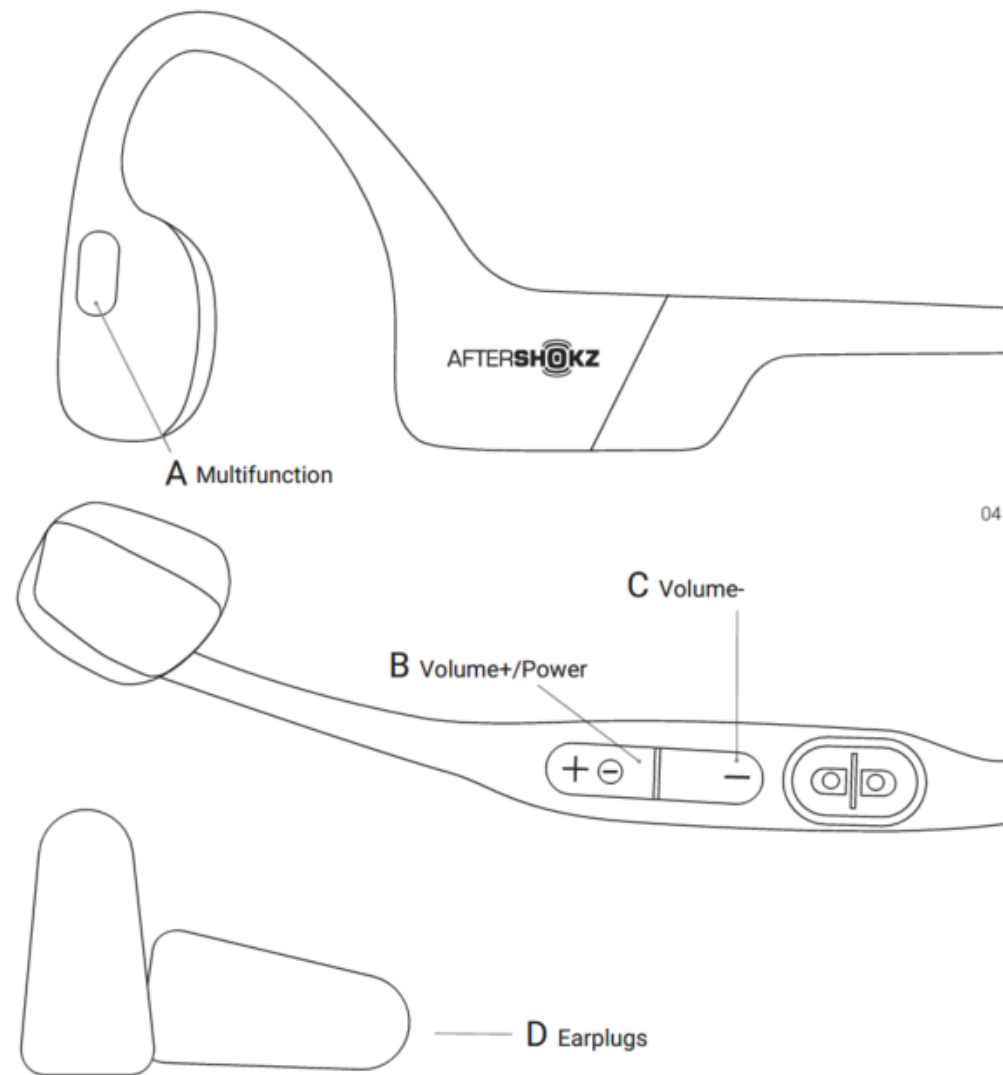


AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
			105 ± 3dB
	Bluetooth® version	Bluetooth® v5.0	Microphone
			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
	AfterShokz AS800 User Guide, 6-7.		
	A POSITA would understand the “normal line” in AfterShokz AS800 to be one example of a normal line because the housing panel used to contact the user’s body in AfterShokz AS800 is non-planar (has a curvature). A POSITA would understand the normal line may be determined by selecting a certain point in an area when the panel is in contact with human skin, determining a tangent plane of the panel at the selected point, and determining a straight line that passes through the point and is perpendicular to the tangent plane, and designating the straight line as the normal line of the panel. <i>See, e.g.,</i> ’084 Patent, 19:32-20:14. A		

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	POSTIA would therefore understand that when the panel used to contact the user's body is non-planar like in AfterShokz AS800, different points correspond to different tangent planes of the panel, and the determined normal line may also be different. Therefore, the example "normal line" is just one example of a normal line in AfterShokz AS800. To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[13b] an angle between the two lines in their positive direction is an acute angle.	AfterShokz AS800 expressly or inherently discloses "an angle between the two lines in their positive direction is an acute angle." For example: AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.



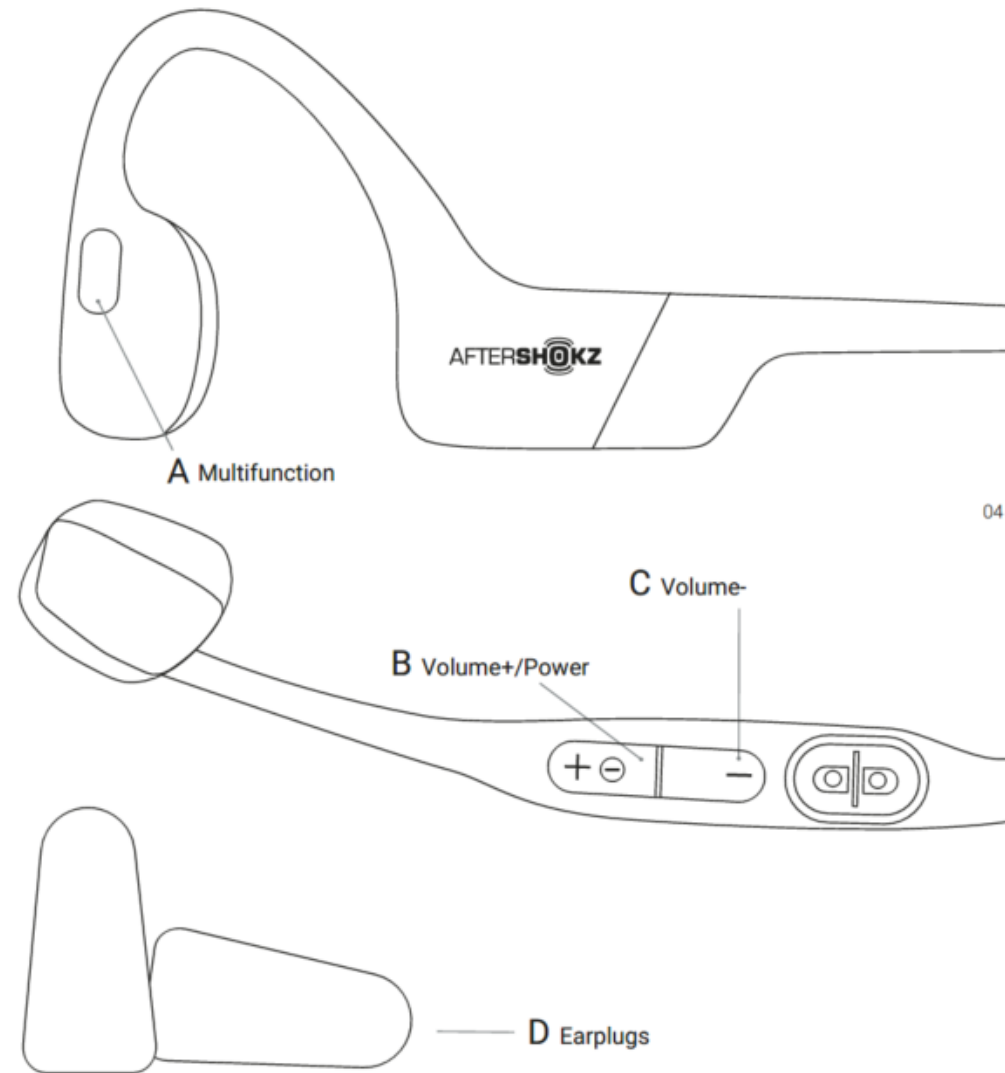
AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
			105 ± 3dB
	Bluetooth® version	Bluetooth® v5.0	Microphone
			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
	AfterShokz AS800 User Guide, 6-7.		
	To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa's other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.		

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
[14pre] The loudspeaker apparatus of claim 12, wherein	AfterShokz AS800 expressly or inherently discloses “[t]he loudspeaker apparatus of claim 12.” <i>See</i> above at rows 12pre–12b.
[14a] the earphone core includes a coil and a magnetic circuit system, and	AfterShokz AS800 expressly or inherently discloses “the earphone core includes a coil and a magnetic circuit system.” For example: To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[14b] an axis of the coil or the magnetic circuit system is not parallel to the normal line, the axis being perpendicular to a radial plane of the coil or the magnetic circuit system.	AfterShokz AS800 expressly or inherently discloses “an axis of the coil or the magnetic circuit system is not parallel to the normal line, the axis being perpendicular to a radial plane of the coil or the magnetic circuit system.” For example: To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.
[15pre] The loudspeaker apparatus of claim 12, wherein	AfterShokz AS800 expressly or inherently discloses “[t]he loudspeaker apparatus of claim 12.” <i>See</i> above at rows 12pre–12b.
[15a] the driving force has a component in a first quadrant or a third quadrant of an XOY plane coordinate system, wherein an origin O of the XOY plane coordinate system is on a contact surface between the loudspeaker apparatus and a human body, an X-axis of the XOY plane coordinate system is parallel to a	AfterShokz AS800 expressly or inherently discloses “the driving force has a component in a first quadrant or a third quadrant of an XOY plane coordinate system, wherein an origin O of the XOY plane coordinate system is on a contact surface between the loudspeaker apparatus and a human body, an X-axis of the XOY plane coordinate system is parallel to a coronal axis of the human body, a Y-axis of the XOY plane coordinate system is parallel to a sagittal axis of the human body, a positive direction of the X-axis faces outside of the human body, and a positive direction of the Y-axis faces front of the human body.” For example:

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
coronal axis of the human body, a Y-axis of the XOY plane coordinate system is parallel to a sagittal axis of the human body, a positive direction of the X-axis faces outside of the human body, and a positive direction of the Y-axis faces front of the human body.	 AfterShokz AS800 User Guide, 1.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	 Microphone 2 Microphone 1 LED Indicator Power/Volume+ Button Volume- Button Magnetic Charging Port 02 AfterShokz AS800 User Guide, 2.



AfterShokz AS800 User Guide, 4.

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800		
	Specifications		
	Part number	AS800	Frequency response
			20Hz~20kHz
	Speaker type	Bone conduction transducer	Sensitivity
			105 ± 3dB
	Bluetooth® version	Bluetooth® v5.0	Microphone
			-38dB ± 3dB
	Wireless range	10 m	Battery
			Li-Polymer battery
	Compatible profiles	A2DP, AVRCP, HSP, HFP	Weight
			26 g
	Continuous play	Up to 8 hours	Standby time
			Up to 10 days
	Charge time	2 hours	Warranty
			2 years
	Frequency band	2402MHz~2480MHz	Maximum RF output power
			5dBm
	Charge voltage	5V±5%	Water resistance
			IP67
	Battery capacity	145 mAh	
AfterShokz AS800 User Guide, 6-7.			
Furthermore, a POSITA would be familiar with the “coronal axis of the human body” and the “sagittal axis of the human body” (’084 Patent, Claim 15) through his or her work in acoustic technology. <i>See, e.g.</i> , Stanley A. Gelfand, <i>Hearing: An Introduction to Psychological and Physiological Acoustics</i> (2010).			
A POSITA would understand that when the bone conduction speaker of AfterShokz AS800 is used by a user, the orientation of the device would necessarily result in the first portion of the claimed “the driving force has			

U.S. Pat. No. 11,197,084	Exemplary citations to AfterShokz AS800
	a component in a first quadrant or a third quadrant of an XOY plane coordinate system,” because a vector of the driving force would necessarily point in the direction of the third quadrant due to the angle of the housing in contacting the user’s head, resulting in an X and Y “component in a first quadrant or a third quadrant of an XOY plane coordinate system.” To the extent that AfterShokz AS800 does not disclose any elements of this claim limitation, it would have been obvious to a person having ordinary skill in the art to combine, with the teachings of AfterShokz AS800, those elements as known to them or as disclosed by other prior art identified in the cover pleading, in Mojawa’s other claim charts, and/or in combination with the general knowledge of a person having ordinary skill in the art.