

# smartPlug™

## TECHNICAL INFORMATION

**Rev: 6/30/22**

**For most recent technical information, visit  
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## FORWARD

**Product Safety and RF Exposure Compliance:** This product is designed to be used in isolation or in conjunction with a two-way radio. Before using this product with a two-way radio, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet enclosed with the two-way radio.

**Battery and Charging Information:** The internal battery is shipped with a nominal charge between 30 and 50% and should be stored between -10°C (14°F) and 30°C (86°F) to minimize permanent capacity loss.

Do not charge your headset in temperatures below 0°C (32°F) or above 40°C (104°F). Conditions inside a parked car can exceed this range. Do not store your headset in a parked car. Do not store your headset in direct sunlight. Storing your fully charged headset in high-temperature conditions may permanently reduce the life of the internal battery. Battery life may temporarily shorten in low-temperature conditions.

**WARNING** Never dispose of batteries in a fire because they may explode.

**Note:** The battery is not a user replaceable part.

## FCC COMPLIANCE STATEMENT

The smartPlug™ headset with Bluetooth® module, complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (i) This device may not cause harmful interference
- (ii) This device must accept any interference received, including interference that may cause undesired operation.

**WARNING** Any changes or modifications not expressly approved by Sensear Pty Ltd. could void the user's authority to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does not cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected

Consult the dealer or an experienced radio/tv technician for help.

## SPECIFICATIONS

SPECIFICATION	SMARTPLUG™	
Weight	172g	6.1oz
Operational Temp. (charging)	0°C to +45°C	32°F to +113°F
Operational Temp. (discharging)	-20°C to +60°C	-4°F to +140°F
Battery Life	15 Hours	
Battery Charge Time	5 Hours	
Housing Material	PC/ABS+TPE	
RoHS Compliant	Yes	
Bluetooth® Version	3.0	
Bluetooth® Profiles Supported	HSP, HFP v1.6, A2DP	
FM Radio Reception	88.0–108.0 MHz	
SR Transmitter Range	20m/65ft line-of-site depending on region setting	
NRR (ANSI S3.19-1974)	31dB	
SNR (EN352-2)	38dB	
SLC80 (AS/NZS 1270:2002)	28dB, Class 5	
Charge Voltage	5V	

This product must not be dismantled by the user for any purpose. The unit cannot be required by the user.

## NRR AND SLC80

The smartPlug™ has been certified to international hearing protection standards including EN352-2, EN352-7, ANSI S3.19-1974, ANSI 12.6-2008, and AS/NZS 1270-2002. The following passive attenuation ratings were observed:

### PASSIVE ATTENUATION (ANSI S3.19 – 1974)

smartPlug™ measured in accordance with ANSI S3.19-1974.

#### Foam tips (SML, MED, LRG)

<i>Frequency (Hz)</i>	<b>12</b>	<b>250</b>	<b>50</b>	<b>1000</b>	<b>2000</b>	<b>3150</b>	<b>4000</b>	<b>6300</b>	<b>8000</b>	<b>NRR</b>
Mean attenuation(dB)	38.	35.	40.	39.6	40.7	42.9	40.9	44.5	45.8	31dB
Standard deviation(dB)	4.	2.8	3.	4.2	3.8	3.5	2.9	4.4	3.9	

## PASSIVE ATTENUATION (ANSI S12.6 – 2008)

smartPlug™ measured in accordance with ANSI S12.6–2008 (Method B)

### Foam tips (SML, MED, LRG)

Frequency (Hz)	125	250	500	1000	2000	4000	8000	NRS
Mean attenuation(dB)	32.0	29.2	32.3	32.	37.0	40.8	42.6	29to 39 dB
Standard deviation (dB)	6.1	6.5	6.8	6.7	5.1	5.8	4.5	
APV84%	26.9	23.7	26.6	26.	32.7	35.9	38.8	

## PASSIVE ATTENUATION (AS/NZS 1270:2002)

smartPlug™ measured in accordance with AS/NZS1270:2002.

### Foam tips (SML, MED, LRG)

Frequency (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)
Mean attenuation(dB)	31.7	28.	32.1	32.7	36.7	39.	42.0	28dB, Class5
Standard deviation (dB)	9.7	7.8	8.0	8.2	5.7	7.6	5.7	
Mean attenuation-Standard deviation (dB)	22.0	20.	24.1	24.5	31.0	31.	36.3	

## PASSIVE ATTENUATION (EN352-2 AND EN352-7)

smartPlug™ measured in accordance with EN352-2 and EN352-7.

### Foam tips (EN352-2)

Frequency (Hz)	125	250	500	1000	2000	4000	8000	H	M	L	SNR
								(dB)			
Mean attenuation (dB)	38.8	35.4	40.7	39.8	40.9	40.8	44.3	37	36	35	38
Standard deviation (dB)	4.8	3.2	3.5	4.7	3.5	3.7	3.7				
Mean attenuation – Standard deviation (dB)	34.1	32.2	37.2	35.1	37.5	37.1	40.7				

The smartPlug™ has level dependent facilities and the criterion levels as defined in EN352-7 are displayed below.

Model	H	M	L
	(dBA)		
Foam tips	115.4	118.0	118.1

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## Waste (Disposal) of your Electronic and Electric Equipment



### European Union (EU) Waste of Electrical and Electronic Equipment (WEEE) directive

The European Union's WEEE directive requires that products sold into EU countries must have the crossed-out trash bin label on the product (or the package in some cases). As defined by the WEEE directive, this cross-out trash bin label means that customers and end-users in EU countries should not dispose of electronic and electrical equipment or accessories in household waste. Customers or end-users in EU countries should contact their local equipment supplier representative or service center for information about the waste collection system in their country.



### Directive de l'Union Européenne (UE) sur l'Élimination des Équipements Électriques et Électroniques (DEEE)

La directive DEEE de l'Union Européenne impose que les produits vendus dans les pays de l'UE portent la marque (éventuellement sur l'emballage) d'une poubelle sur roues barrée d'une croix.

Comme la directive DEEE l'explique, cette marque composée d'une poubelle sur roues barrée d'une croix signifie que les clients et les utilisateurs des pays de l'UE ne devraient pas inclure leurs équipements électriques et électroniques ou accessoires dans leurs déchets ménagers. Les clients ou utilisateurs des pays de l'UE devraient contacter le représentant local de leur fournisseur d'équipement ou un centre de service pour s'informer sur le système de collection de déchets dans leur pays.



### De richtlijn inzake afgedankte elektrische en elektronische apparatuur (AEEA) van de Europese Unie (EU)

De richtlijn AEEA van de Europese Unie vereist dat producten die in de landen van de EU worden verkocht (of in sommige gevallen de verpakking daarvan), moeten zijn voorzien van het etiket met een doorgekruiste vuilnisbak. Zoals bepaald door de richtlijn AEEA, betekent dit etiket met de doorgekruiste vuilnisbak dat klanten en eindgebruikers in de landen van de EU elektrische en elektronische apparatuur of toebehoren niet met het huisvuil mogen wegwerpen. Klanten en eindgebruikers binnen de EU moeten contact opnemen met hun plaatselijke leverancier of onderhoudscentrum voor informatie over het afvalinzamelsysteem in hun land.



### Richtlinie über Elektro- und Elektronik-Altgeräte (WEEE) der Europäischen Union (EU)

Produkte, die in EU Ländern auf den Markt gebracht werden, müssen mit einer durchgestrichenen Abfalltonne gekennzeichnet sein (oder in einzelnen Fällen die Verpackung). Die WEEE Richtlinie definiert, dass Kunden und Endnutzer in Ländern der Europäischen Union (EU) elektronische und elektrische Geräte sowie elektronisches oder elektrisches Zubehör nicht in den Hausmüll entsorgen dürfen. Innerhalb der EU setzen Sie sich bitte mit dem örtlichen Vertreter oder Kundendienst Ihres Geräteherstellers in Verbindung, der Ihnen Auskunft zur Altgeräteentsorgung/-abholung geben kann.

**IT**

**La direttiva de la Unione Europea (EU) sui rifiuti di apparecchiature elettriche ed elettroniche (RAEE)**

La direttiva RAEE della Unione Europea richiede che i prodotti venduti nei paesi della UE debbano essere marcati con il simbolo di un contenitore spazzatura mobile barrato sul prodotto (o in casi eccezionali sull'imballaggio). Il simbolo di un contenitore spazzatura mobile barrato, conforme alla direttiva RAEE, significa chi i clienti e i detentori finali nei paesi della UE, non dovrebbero smaltire gli apparecchi o gli accessori elettronici ed elettrici con i normali rifiuti domestici. I clienti o i detentori finali nei paesi della UE dovrebbero rivolgersi al fornitore, rappresentante o centro di riparazione locale per ottenere informazioni sui sistemi predisposti nel proprio paese per la raccolta di apparecchi usati.

**PT**

**Directiva da União Europeia (UE) relativa aos Resíduos de Equipamentos Eléctricos e Electrónicos (REEE)**

A Directiva REEE da União Europeia exige que os produtos vendidos em países da UE tenham a etiqueta com o símbolo do contenedor do lixo barrado com uma cruz no próprio produto (ou, em determinados casos, na embalagem). Tal como definido pela Directiva REEE, este contenedor do lixo barrado com uma cruz significa que os clientes e utilizadores finais nos países da UE não devem eliminar equipamentos eléctricos e electrónicos ou acessórios junto com o lixo doméstico. Os clientes ou utilizadores finais nos países da UE devem contactar o representante local do fornecedor do equipamento ou um centro de assistência para obter informações relativas ao sistema de recolha de lixo no país onde vivem.

**RU**

**Директива Европейского Союза (ЕС) об утилизации электрического и электронного оборудования («УЭЭО»).**

Директива «УЭЭО» Европейского Союза требует, чтобы на изделиях, продаваемых в странах ЕС (а в отдельных случаях на их упаковках), была нанесена маркировка в виде перечёркнутого мусорного контейнера. Как установлено в директиве «УЭЭО», такая маркировка в виде перечёркнутого мусорного контейнера означает, что покупатели и конечные пользователи не должны выбрасывать электронное и электрическое оборудование или приборы в бытовой мусор. Покупателям и конечным пользователям в странах ЕС следует обращаться к местным представителям поставщиков оборудования или в сервисные центры для получения информации о системе сбора отходов в их стране.

**ES**

**La directiva de la Unión Europea (EU) sobre Residuos de Aparatos Eléctricos y Electrónicos (RAEE)**

La directiva RAEE de la Unión Europea requiere que los productos vendidos en los países de la UE sean rotulados mediante el símbolo de un contenedor de basura tachado sobre el producto (o en algunos casos sobre el envase). Conforme con la directiva RAEE, el símbolo del contenedor de basura tachado significa que los clientes y usuarios finales en los países de la UE no deberían de disponer los aparatos eléctricos o electrónicos ni ninguno de sus componentes junto a la basura doméstica. Clientes o usuarios finales en los países de la UE deben entrar en contacto con el centro de servicio o proveedores del equipo para obtener información acerca del sistema de recolección en su país.