

SORDIN SUPREME T2

MANUAL



ENGLISH

SORDIN
EMBRACE NOISE


Sordin**FLEX**
MODULAR DESIGN PLATFORM


Sordin**HEAR2**
HIGH END AUDIO REPRODUCTION

Fig 1



Fig 2

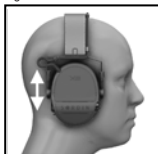


Fig 3

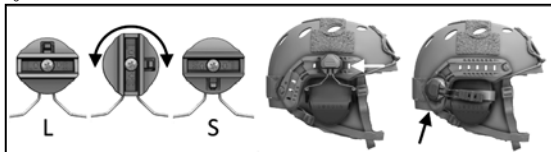


Fig 4

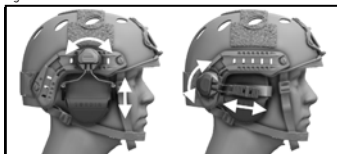


Fig 5

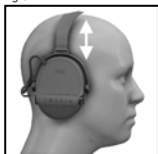


Fig 6.1

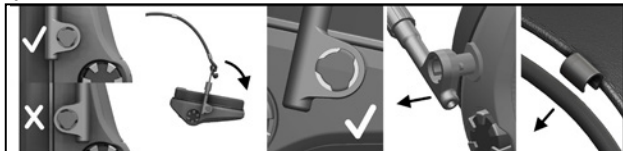


Fig 6.2

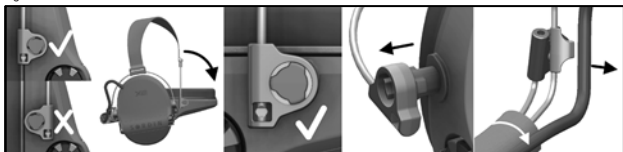


Fig 6.3



Fig 6.4

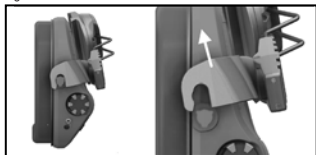


Fig 7

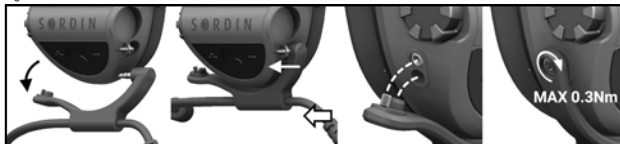


Fig 8

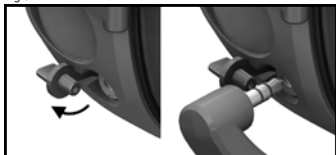


Fig 9

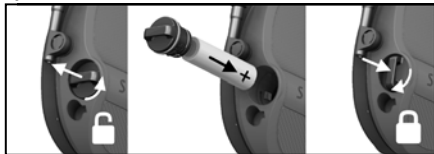


Fig 10

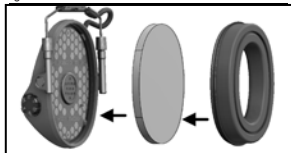


Fig 11



ENGLISH

INTRODUCTION

Sordin Supreme T2 is an electronic hearing protector designed to protect against harmful noise while providing situational awareness with ambient sound for listening and face-to-face communication. Add-on functions such as cable connection to a two-way radio via PTT (push to talk) are available in different variants.

The hearing protection is available in following main variants:

T2	Ambient sound, support for T2 Flex Com CC communication kit
T2 CC	Ambient sound, fixed boom microphone and cable connection to two-way radio via PTT
T2 CC Right	As T2 CC with boom microphone and cable connection mounted to the right

COMPLIANCE AND APPROVALS

This product meets the Essential Health and Safety Requirements as laid out in Annex II and conforms with quality assurance of the production process, module D, laid out in Annex VIII of the PPE regulation (EU) 2016/425.

CE markings are in accordance with EN 352-1:2020; EN 352-2:2020; EN 352-3:2020; EN 352-4:2020 and EN 352-6:2020. The products are approved to modules B and D by BSI (NB 2797), BSI Group the Netherlands B.V. Say Building, John M. Keynesplein 9, 1066 EP Amsterdam, The Netherlands.

The product also complies with:

Directive 2001/95/EC General Product Safety.

EN IEC 62368-1:2020 / A11:2020

Audio/Video, information and communication technology equipment - Part 1: Safety Requirements.

2014/30/EU Electromagnetic Compatibility (EMC) Directive

EN 55032, EN 55035, EN 61000-6-2, EN 61000-6-3

ETSI 301-489-1

2006/66/EC Battery Directive (applies only to variants supplied with Li-Ion battery)

The battery is certified according to IEC62133 edition 2 and UN38.3.

Directive 2011/65/EU RoHS2 Restriction of hazardous substances

Further information and the full text of the EU declaration of conformity are available at the following internet address: www.sordin.com; search for T2.

Responsible manufacturer:

Sordin Värnamo AB, Rörlägggarvägen 8, SE-331 53 Värnamo, Sweden, tel: +46-370-69 35 50

REGISTERED TRADEMARKS

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Sordin AB is under license.

SAFETY

General safety

WARNING!

- Use and save these instructions.
- The noise attenuation of the product will be severely impaired if you do not follow the instructions in this operator's manual and may result in hearing loss or injury.
- The wearer should ensure that,
 - the hearing protector is fitted, adjusted and maintained in accordance with this manual.
 - the hearing protector is worn at all times in noisy environments.
 - the hearing protector is regularly inspected for serviceability.
- As there can be a large variation in fit and fit ability between users, which may affect noise reduction, Sordin cannot guarantee that the specified attenuation values will be achieved for all users and in all situations.
- This hearing protector is provided with level-dependent attenuation. The wearer should check correct operation before use. If distortion or failure is detected, the wearer should refer to the manufacturer's advice for maintenance and replacement of the battery.
- Performance may deteriorate with battery usage. The typical battery time with continuous use that can be expected from the hearing protector battery varies depending on the mode of use and volume output. The typical battery time with continuous use in ambient mode and mid-volume is >70 hours.
- When voice feedback "low battery" is heard, replace or charge the battery.
- The output level-dependent circuit of this hearing protector may exceed the external sound level.
- The hearing protector is provided with safety-related audio input. The user should check correct operation before use. If distortion or failure is detected, the user should refer to the manufacturer's maintenance guidelines.
- The output of the electrical audio circuit of this hearing protector may exceed the daily limit sound level.
- The safety-related audio input may not be used for entertainment since the output level is not limited to the necessary innocuousness level.
- This product may be adversely affected by certain chemical substances. Refer to the manufacturer for further information.
- Clean the product regularly. Use a cloth with water and soap. Do not wash or immerse in water.
- The hearing protector, and in particular the sealing rings, may deteriorate with use and should be examined at frequent intervals for cracking and leakage, for example.
- Fitting hygiene covers over the sealing rings may affect the acoustic performance of the hearing protector.
- The product contains a battery and electrical components that may cause ignition in flammable or explosive atmospheres. Do not use in environments where sparks may cause fire or explosion.
- Do not store the product at temperatures above +55°C and below -20°C.
- Only use the product between temperatures -32°C and +55°C.
- The hearing protector meets the requirements of the drop test at -20°C.
- Only charge the battery between temperatures 0°C and +40°C (applies to variants with Li-Ion batteries)
- Ensure that the product is not damaged during transportation and use.
- Do not change or remove parts on the product. Only make changes as instructed in this manual. All service and repair work must be done by an approved service workshop.
- Only use Sordin original spare parts.
- Never use the hearing protector more than 10 years from the manufacturing date on the packaging.
- Dispose of the product in accordance with national legislation.

OPERATION

Introduction

ⓘ WARNING!

Before you operate the product, you must read and understand the safety chapter.

Before following the fitting instructions, move your hair aside and remove any objects that could affect acoustic seal. Make sure that the sealing rings fit tightly around your ears before operating the product.

Fold Headband model (30NNNN-10N/-11N/-12N) (Fig. 1)

Adjust the headband to minimum size and fold the cups into the headband. Make sure that the sealing rings rest flat against each other.

NOTICE! Do not store the hearing protector in this position.

Use and fit Headband model (30NNNN-10N/-11N/-12N) (Fig. 2)

Place the cups over the ears and adjust the headband and cups until they are in a comfortable position. Adjust the cups until they fit tightly around your ears and against your head.

Approved size ranges: Small-Medium-Large.

To assemble Helmet ARC- and R-ARC-rail model to a helmet (30NNNN-30N/-31N) (Fig. 3)

Lift the cups out and up until they lock in standby position. Set the suspension to the correct size mode S/L according to Table 2. Push the suspension into the ARC rail on the helmet. Adjust the position to avoid interference with the helmet.

Use and fit Helmet ARC- and R-ARC-rail model (30NNNN-30N/-31N) (Fig. 4)

Put on the helmet. Adjust the cups until they fit tightly around your ears and against your head.

Only combine the hearing protector with a helmet and/or face protection device listed in Table. For an updated list of approved device combinations, visit www.sordin.com.

Approved size: See Table 2

Use and fit Neckband (30NNNN-20N) (Fig. 5)

Place the cups over the ears and adjust the neckband and cups until they are in a comfortable position. Adjust the cups until they fit tightly around your ears and against your head.

Approved size ranges: Small-Medium-Large.

To replace suspension

Headband Fig. 6.1; Neckband Fig. 6.2; ARC Fig. 6.3

Turn the cups 90 degrees from normal position to unlock the suspension. Carefully detach the suspension. Detach the cable from the clips or textile padding. Reverse these steps to attach suspension to cups. Visit www.sordin.com for more information.

NOTICE! Do not pull hard. No tools needed. Carefully remove the suspension when the triangle shapes on the cups and suspension align.

R-ARC Fig. 6.4

Pull R-ARC clip upwards to detach the suspension from the cups. Reverse steps to attach suspension to cups. Visit www.sordin.com for more information.

To assemble T2 Flex Com CC or X2 Flex Com BT (Fig. 7)

Make sure that the hearing protector is switched off and connect the communication kit to the 3.5-mm input* on the right or left cup. Make sure that the guide pin and hole align. Make sure the screw does not enter the thread at an angle. Tighten the screw (Torx size T10) carefully with a hand tool (max 0.3 Nm).

To connect 3.5-mm AUX (Fig. 8)

Open cover-plug and connect 3.5-mm AUX plug.

FUNCTIONS

Battery Installation/Replacement

The hearing protector is powered by one AA or one Li-ion rechargeable battery. The battery is protected against moisture and dirt by the battery compartment. Install and replace the battery by following the instructions (Fig.9).

Turn battery lid counterclockwise and pull to remove lid. Place battery inside compartment. Check for correct battery polarity. Place, push and turn the battery lid clockwise. We recommend using a Sordin chargeable Li-ion battery to ensure optimum performance and safety.

Charging the unit

Applicable to units using a rechargeable Li-ion battery only:

To charge the battery, we recommend using a **Sordin Power** charger. Remove battery according to Battery Installation/Replacement section, then charge the battery according to the instructions for the charger.

To operate

The product is equipped with three buttons, marked [+] (plus), [-] (minus) and [O] (operate). (Fig.11).

Switch ON / OFF

- To turn ON, push the multifunction [O] button (Fig.11).
- To turn OFF, push and hold the multifunction [O] button (Fig.11) until you hear voice feedback "Power off".

NOTICE! If no function button is activated for 4 hours, the unit will turn off automatically. Before automatic switch-off, voice feedback "Automatic power off" will be heard as a warning that the product will be switched off. Press any key to delay the switch off by an additional 4 hours.

Volume adjustment, (+/-)

- To adjust the volume in current mode, click the [+] button (Fig.11) to turn the volume up or [-] button (Fig.11) to turn the volume down.

AUDIO PROFILES T2

Tactical Main audio profile

User situations: General profile for various types of mission.

When the hearing protector is switched on, press the [O] button (Fig.11) to switch between Tactical and Comfort mode. You will hear voice feedback "Tactical" when entering Tactical mode.

Comfort

A profile with a lower gain and reduced frequency spectrum. Suitable for face-to-face communication.

User situations: For long-time exposure in noisy environments with maintained communication.

When the hearing protector is switched on, press the [O] key (Fig.11) to switch between Tactical and Comfort mode. You will hear voice feedback "Comfort" when entering Comfort mode.

Dual

Higher sound amplification and a wider frequency spectrum.

User situations: For higher situational awareness or when hearing protector is used in combination with earplugs.

When the unit is switched on, set the volume to max and then press and hold the [+] button (Fig.11) until voice feedback "Dual" is heard. To leave this mode, press [-] or [O] button, to return to the previous mode.

Ambient off Passive noise attenuation only.

User situations: High noise environments.

When the hearing protector is switched on, set the volume to min and then press the [-] button (Fig.11) until voice feedback "Ambient off" is heard. To leave this mode press [+] or [0] button, to return to previous mode.

NOTICE! If the hearing protector is switched off in the Dual or Ambient off audio profile, the start mode will return to "Tactical" or "Comfort" when switching on the hearing protector the next time.

Ear plugs

When using the T2 hearing protector in combination with earplugs, we recommend using audio profile "Dual".

Connections

See section Introduction for instructions on how to connect Flexcom and AUX.

T2 Fixed Com CC (T2 CC models only)

The hearing protector is equipped with an adjustable microphone. The microphone is noise compensating, which ensures voice perception in noisy environments. Note! Microphone must be positioned close to your mouth, about 2-5 mm, in order for noise compensation to work well. To prevent interference from wind noise, always use the attached windshield.

T2 Flex Com CC (T2 models only)

The hearing protector can be equipped with a detachable boom-microphone with downlead (Fig. 7). The boom-microphone can be attached on both left and right cup. The performance is equal to the fixed boom-microphone on the T2 CC models.

AUX audio input

The product has a 3.5-mm AUX audio input, for connecting an external acoustic source for communication. Refer to the operating instructions for the external communication equipment to ensure that it is correctly connected. The circuit must not be subjected to a signal greater than 2 Vrms to prevent permanent damage.

T2 models - Input signal level for which the mean plus one standard deviation equals 82 dB(A): 137.3 mVrms .

Note! Please see Table 4 for more detailed information.

ⓘ WARNING!

The sound pressure level can exceed 82 dB(A) for input signal levels higher than maximum specified input signal level.

2-way radio communication

To enable voice communication, the hearing protector must be connected to a 2-way radio by cable.

***NOTICE!** Sordin cannot guarantee compatibility with all 2-way radios available in the market. Check before use.

MAINTENANCE

ⓘ WARNING!

Do not wash or immerse in water.

Clean the product regularly. Use a cloth with water and soap and dry them carefully.

Check the condition of the sealing rings and the foam rubber inserts before each use. Replace the sealing rings and the foam rubber inserts once every six months or more frequently if it is necessary (Fig. 10). Use original spare parts, see Table 5. Visit www.sordin.com for ordering information.

Moisture may occur inside the hearing protector's cups if used for long periods. It is recommended that the foam rubber inserts are detached regularly to allow the cups to dry out completely (Fig. 10).

TRANSPORTATION, STORAGE AND DISPOSAL

Transportation and storage

When the hearing protector is not in use,

- Always store in a dry and clean place at room temperature between each usage to let it dry out completely.
- Do not expose to direct sunlight.
- When the helmet is not in use, put the hearing protectors in its operating position.

The information above also applies to transportation of the hearing protector. No additional protection is needed.

NOTICE! Do not place headband variants in the folded position for a long-term storage, as this will compress the sealing rings. Folded position should be used only for short-term storage to simplify transportation.

Disposal

Follow national regulations for disposal of the product.

ATTENUATION DATA (TABLE 1)

f = Frequencies at which attenuation is measured

M_f = Mean value

s_f = Standard deviation

APV ($M_f - s_f$) = Assumed Protection Value

H = High frequency attenuation value (predicted noise level reduction for noise where $L_c - L_A = -2$ dB)

M = Medium frequency attenuation value (predicted noise level reduction for noise where $L_c - L_A = +2$ dB)

L = Low frequency attenuation value (predicted noise level reduction for noise where $L_c - L_A = +10$ dB)

SNR = Single Number Rating (the value that is subtracted from the measured C-weighted sound pressure level, L_C , in order to estimate the effective A-weighted sound level inside the ear)

W = Weight

Notice! As there can be a large variation in fit and fit ability between users, which may affect noise attenuation, Sordin cannot guarantee that the specified attenuation values will be achieved for all users and in all situations.

CRITERION LEVELS (TABLE 3)

Typical values in accordance with EN 352-4:2020, with the volume set to maximum.

H = High frequency sound pressure level ($L_c - L_A = 1,2$ dB)

M = Medium frequency sound pressure level ($L_c - L_A = 2$ dB)

L = Low frequency sound pressure level ($L_c - L_A = 6$ dB)

MATERIALS

Cups and foam rubber inserts	ABS and PU foam
Suspension	Stainless steel and plastic
Suspension padding	Leather or coloured fabric
Sealing rings	ABS, PVC-foil, PU foam or Silicone-gel

DATA TABLES

TABLE 1 – TECHNICAL DATA

30NNNN-10P/-11P/-12P, Headband Hygiene kit PVC

f (Hz)	63	125	250	500	1000	2000	4000	8000
M_f (dB)	19.3	17.5	19.8	26.2	33.1	31.5	41.3	41.4
S_f (dB)	3.0	2.6	2.4	2.2	2.0	2.6	2.5	3.4
APV (dB)	16.2	14.9	17.5	24.0	31.1	28.9	38.8	38.1

$H_m = 31.4$ dB $M_m = 28.7$ dB $L_m = 22.6$ dB $SNR_m = 31.0$ dB **Weight = 309 g**

$H_s = 2.2$ dB $M_s = 1.6$ dB $L_s = 2.2$ dB $SNR_s = 1.6$ dB

$H = 32$ dB $M = 27$ dB $L = 22$ dB $SNR = 29$ dB

30NNNN-10G/-11G/-12G, Headband Hygiene kit GEL

f (Hz)	63	125	250	500	1000	2000	4000	8000
M_f (dB)	20.5	19.7	21.1	26.2	30.7	31.1	41.1	42.2
S_f (dB)	2.2	2.2	2.4	2.8	2.8	2.7	3.2	2.7
APV (dB)	18.4	17.6	18.8	23.4	27.8	28.4	37.8	39.6

$H_m = 33.3$ dB $M_m = 28.5$ dB $L_m = 23.9$ dB $SNR_m = 31.1$ dB **Weight = 367 g**

$H_s = 2.1$ dB $M_s = 1.9$ dB $L_s = 1.9$ dB $SNR_s = 1.7$ dB

$H = 31$ dB $M = 27$ dB $L = 22$ dB $SNR = 29$ dB

30NNNN-20P Neckband, Hygiene kit PVC

f (Hz)	63	125	250	500	1000	2000	4000	8000
M_f (dB)	18.1	16.9	20.6	26.9	31.9	29.2	38.5	39.6
S_f (dB)	3.0	2.0	2.6	3.0	2.8	3.6	3.5	3.9
APV (dB)	15.1	14.9	17.9	23.9	29.0	25.6	35.0	35.7

$H_m = 31.8$ dB $M_m = 28.3$ dB $L_m = 22.8$ dB $SNR_m = 30.3$ dB **Weight = 275 g**

$H_s = 3.2$ dB $M_s = 2.0$ dB $L_s = 1.9$ dB $SNR_s = 2.0$ dB

$H = 29$ dB $M = 26$ dB $L = 21$ dB $SNR = 28$ dB

30NNNN-20G Neckband Hygiene kit GEL

f (Hz)	63	125	250	500	1000	2000	4000	8000
M_i (dB)	19.1	18.9	20.8	25.6	32.5	30.9	39.8	40.8
S_i (dB)	3.1	2.2	2.4	2.8	2.7	3.0	3.1	4.0
APV (dB)	16.0	16.8	18.5	22.8	29.8	27.9	36.7	36.8

$H_m = 33.3$ dB	$M_m = 28.6$ dB	$L_m = 23.5$ dB	$SNR_m = 31.0$ dB	Weight = 333 g
$H_s = 2.5$ dB	$M_s = 1.9$ dB	$L_s = 1.9$ dB	$SNR_s = 1.9$ dB	
$H = 31$ dB	$M = 27$ dB	$L = 22$ dB	$SNR = 29$ dB	

30NNNN-30P Helmet ARC Hygiene kit PVC

(Team Wendy EXFIL LTP Helmet Rail 3.0, Size 1 M/L)

f (Hz)	63	125	250	500	1000	2000	4000	8000
M_i (dB)	18.4	19.7	20.3	24.4	28.3	28.8	40.6	42.9
S_i (dB)	2.2	2.0	2.4	2.3	3.0	2.8	3.4	3.4
APV (dB)	16.1	17.7	17.9	22.1	25.3	26.0	37.2	39.6

$H_m = 31.1$ dB	$M_m = 26.8$ dB	$L_m = 22.9$ dB	$SNR_m = 29.4$ dB	Weight = 288 g
$H_s = 2.5$ dB	$M_s = 2.0$ dB	$L_s = 1.7$ dB	$SNR_s = 1.8$ dB	
$H = 29$ dB	$M = 25$ dB	$L = 21$ dB	$SNR = 28$ dB	

30NNNN-30G Helmet ARC Hygiene kit GEL

(Team Wendy EXFIL LTP Helmet Rail 3.0, Size 1 M/L)

f (Hz)	63	125	250	500	1000	2000	4000	8000
M_i (dB)	18.6	17.7	19.9	24.1	29.6	29.8	39.7	42.2
S_i (dB)	2.7	2.3	2.2	2.6	2.7	2.4	2.3	3.1
APV (dB)	15.9	15.4	17.7	21.5	26.9	27.4	37.4	39.1

$H_m = 32.2$ dB	$M_m = 27.0$ dB	$L_m = 22.2$ dB	$SNR_m = 29.6$ dB	Weight = 345 g
$H_s = 2.2$ dB	$M_s = 1.8$ dB	$L_s = 1.4$ dB	$SNR_s = 1.7$ dB	
$H = 30$ dB	$M = 25$ dB	$L = 21$ dB	$SNR = 28$ dB	

30NNNN-31P Helmet R-ARC Hygiene kit PVC

(Ops-Core FAST Carbon High Cut Helmet, M/L)

f (Hz)	63	125	250	500	1000	2000	4000	8000
M_i (dB)	20.0	18.3	22.3	27.2	32.8	32.3	39.9	40.3
S_i (dB)	3.1	2.9	2.9	2.9	2.6	2.5	2.5	2.6
APV (dB)	17.0	15.3	19.3	24.4	30.2	29.8	37.4	37.7

$H_m = 34.4$ dB	$M_m = 29.6$ dB	$L_m = 24.1$ dB	$SNR_m = 32.0$ dB	Weight = 342 g
$H_s = 1.8$ dB	$M_s = 1.9$ dB	$L_s = 2.3$ dB	$SNR_s = 1.8$ dB	
H = 33 dB	M = 28 dB	L = 22 dB	SNR = 30 dB	

30NNNN-31G Helmet R-ARC Hygiene kit GEL

(Ops-Core FAST Carbon High Cut Helmet, M/L)

f (Hz)	63	125	250	500	1000	2000	4000	8000
M_i (dB)	19.9	18.2	20.1	24.1	28.2	30.5	42.0	41.7
S_i (dB)	2.5	2.5	2.6	1.8	2.5	2.3	3.6	2.6
APV (dB)	17.4	15.8	17.5	22.3	25.7	28.3	38.4	39.1

$H_m = 32.5$ dB	$M_m = 26.9$ dB	$L_m = 22.5$ dB	$SNR_m = 29.7$ dB	Weight = 400 g
$H_s = 2.1$ dB	$M_s = 1.9$ dB	$L_s = 2.1$ dB	$SNR_s = 1.8$ dB	
H = 30 dB	M = 25 dB	L = 20 dB	SNR = 28 dB	

30NNNN-10P/-11P/-12P, Dual protection

Headband Hygiene kit PVC and Sordin SoftEar ear plug (M/L)

f (Hz)	63	125	250	500	1000	2000	4000	8000
M_i (dB)	32.1	34.7	41.2	50.7	43.3	39.8	48.0	46.9
S_i (dB)	5.9	5.7	5.6	5.9	4.5	4.6	4.0	3.9
APV (dB)	26.2	29.1	35.6	44.8	38.8	25.3	44.0	42.9

$H_m = 41.5$ dB	$M_m = 42$ dB	$L_m = 40.2$ dB	$SNR_m = 43$ dB	Weight = 309 g
$H_s = 3.8$ dB	$M_s = 3.5$ dB	$L_s = 4.1$ dB	$SNR_s = 3.3$ dB	
H = 38 dB	M = 38 dB	L = 36 dB	SNR = 40 dB	

30NNNN-10G/-11G/-12G, Dual protection

Headband Hygiene kit GEL and Sordin SoftEar ear plug (M/L)

f (Hz)	63	125	250	500	1000	2000	4000	8000
M _i (dB)	31.6	34.0	43.8	55.8	44.5	41.2	50.1	49.0
S _i (dB)	5.3	5.0	5.6	6.1	5.5	5.5	3.7	3.8
APV (dB)	26.3	29.0	38.1	49.6	38.9	35.6	46.3	45.1

H _m = 42.7 dB	M _m = 43.0 dB	L _m = 41.2 dB	SNR _m = 44.1 dB	Weight = 367 g
H _s = 4.5 dB	M _s = 4.0 dB	L _s = 4.2 dB	SNR _s = 3.8 dB	
H = 38 dB	M = 39 dB	L = 37 dB	SNR = 40 dB	

For information related to ANSI S3.19-1974, see table 6.

TABLE 2 – APPROVED HELMET COMBINATIONS

MODEL	HELMET MODEL	APPROVED SIZES and SIZE MODE*		
		S	M	L
30NNNN-30P/30G ARC with hygiene kit PVC/GEL	Team Wendy EXFIL LTP Helmet Rail 3.0, Size 1 M/L	S	S	S
30NNNN-31P/-31G R-ARC with hygiene kit PVC/GEL	OPS-CORE FAST CARBON HIGH CUT HELMET, M/L	L	L	L

*efers to suspension size mode.

See section "To assemble Helmet ARC- and R-ARC-rail model to a helmet (30NNNN-30N/-31N)" and Fig. 3.

TABLE 3 – CRITERION LEVELS

TYPE	CRITERION LEVELS dB(A)		
	L	M	H
All variants	Not applicable	107.2	110.0

Note! There is no significant difference between the measured criterion level (L) when the level-dependent function is on or off, meaning the requirement for minimum criterion level (L) does not apply.

TABLE 4 – A-WEIGHTED DIFFUSE FIELD RELATED SOUND PRESSURE LEVEL

Signal dBV	Signal mV	Sound output level	Allowable exp time (h)*
-30	31.6	69.0	>8
-25	56.2	74.1	>8
-20	100.0	79.2	>8
-15	177.8	84.2	4.8
-10	316.2	88.6	1.7

*Usage time at maximum input signal corresponding to an equivalent sound output level of 82 dB(A) over 8 h.

⚠ Warning!

The sound pressure level can exceed 82 dB(A) for input signal levels higher than the maximum specified input signal level.

TABLE 5 – HYGIENE KIT

Type	Part number
PVC (memory foam)	60197-S
GEL (silicone gel)	60198-S

TABLE 6 – ANSI S3.19-1974

Information related to ANSI S3.19-1974. Attenuation tested according to ANSI S3.19-1974

30NNNN-10P/-11P/-12P, Headband Hygiene kit PVC

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean attenuation dB(A)	17	20.6	25.4	33.2	33.0	39.8	43.2	43.2	41.5
Standard deviation dB(A)	1.5	3.3	1.5	2.6	3.1	3.2	2.4	3.2	3.2

NRR = 23 dB

Headband force = 2.3 lbs

30NNNN-10G/-11G/-12G, Headband Hygiene kit GEL

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean attenuation dB(A)	16.9	19.3	23.8	30.9	30.6	38.4	40.9	42.2	39.6
Standard deviation dB(A)	3.0	1.7	2.0	2.0	2.3	3.1	3.3	2.6	2.6

NRR = 23 dB

Headband force = 2.4 lbs

30NNNN-20P Neckband, Hygiene kit PVC

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean attenuation dB(A)	15.8	20.1	25.7	34.0	30.1	36.0	40.3	42.2	41.1
Standard deviation dB(A)	2.6	1.8	2.0	3.5	3.2	3.6	1.9	2.7	3.2

NRR = 23 dB

Headband force = 2.4 lbs

30NNNN-20G Neckband Hygiene kit GEL

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean attenuation dB(A)	16.8	19.8	25.7	31.0	31.9	39.9	42.3	40.7	40.1
Standard deviation dB(A)	3.0	1.9	2.0	2.3	2.3	2.7	2.5	2.5	2.8

NRR = 23 dB

Headband force = 2.9 lbs

30NNNN-30P Helmet ARC Hygiene kit PVC

(TeamWendy Exfil LTP-Helmet Rail3.0, Size1 M/L)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean attenuation dB(A)	17.5	18.7	22.1	29.0	30.5	37.5	39.6	43.4	42.9
Standard deviation dB(A)	2.5	2.6	1.9	3.0	3.1	2.5	2.0	3.2	2.7

NRR = 21 dB

Headband force = 2.4 lbs

30NNNN-30G Helmet ARC Hygiene kit GEL

(Team Wendy EXFIL LTP Helmet Rail 3.0, Size 1 M/L)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean attenuation dB(A)	17.1	18.7	22.5	27.7	30.6	37.8	41.2	43.3	42.2
Standard deviation dB(A)	2.6	2.3	1.5	1.7	2.2	2.1	3.2	3.1	2.2

NRR = 22 dB

Headband force = 2.6 lbs

30NNNN-31P Helmet R-ARC Hygiene kit PVC

(Ops-Core FAST Carbon High Cut Helmet, M/L)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean attenuation dB(A)	19.4	21.7	25.6	32.1	31.1	39.3	41.5	44.6	43.2
Standard deviation dB(A)	2.8	2.5	2.4	3.1	2.8	2.8	2.1	2.0	1.7

NRR = 23 dB

Headband force = 2.5 lbs

30NNNN-31G Helmet R-ARC Hygiene kit GEL

(Ops-Core FAST Carbon High Cut Helmet, M/L)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean attenuation dB(A)	18.4	21.1	24.8	29.8	31.9	40.9	42.7	44.6	41.3
Standard deviation dB(A)	3.0	2.1	2.6	2.8	2.0	3.0	3.2	2.9	2.5

NRR = 23 dB

Headband force = 2.8 lbs

Information required by the EPA

The level of noise entering a person's ear, when the hearing protector is worn as instructed, is closely approximated by the difference between the A-weighted environmental noise level and the NRR.

Example:

1. The environmental noise level as measured at the ear is 92 dBA.
2. The NRR is 21 decibels (dB).
3. The level of noise entering the ear is approximately equal to 92 dB(A) - 21 dB(A).

Caution: For noise environments dominated by frequencies below 500 Hz, the C-weighted environmental noise level should be used.

Improper fit of this device will reduce its effectiveness in attenuating noise. Consult the enclosed instructions for proper fit (i.e. this manual).

Although hearing protectors can be recommended for protection against the harmful effects of impulsive noise, the Noise Reduction Rating (NRR) is based on the attenuation of continuous noise and may not be an accurate indicator of the protection attainable against impulsive noise such as gunfire.



For more information, see online manual:
www.sordin.com/manuals

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