### EARPHONE REMOVAL

Never pull on the cable to remove earpieces! Instead, reach behind the earpiece at the bowl of the ear, unhook the top from the helix, then grasp the earpiece and twist it forward (toward your nose) as you remove it. Simple!

#### IMPORTANT SAFETY PRECAUTIONS

**Do not** use this product while operating motorized vehicles or heavy machinery, while bicycling or jogging near traffic, or in any potentially hazardous situation where there is a need to hear ambient noise.

- · Consult your authorized Sensaphonics audiologist before use.
- DO NOT use at excessive volume levels.
- · Avoid dropping or strong impact.
- DO NOT pull on the cable to remove earphones from your ears, or to remove the plug from the jack. Always grasp the earpieces or plug directly for removal.
- · DO NOT leave cable where it can be tripped over.
- DO NOT expose in-ear monitors to temperature extremes (e.g., closed auto in the sun).
- · Keep your earphones away from water and dust.

# MEASURING IN-EAR DECIBEL LEVELS



By lowering the noise floor, isolating IEMs provide the ability to monitor effectively at safer levels. Because measuring actual in-ear levels is difficult, Sensaphonics created the dB Check Pro in-ear sound level analyzer. This patented, in-line device displays actual levels in real time, including safe exposure times, allowing the user to set safe monitor levels with confidence.

#### MAINTENANCE AND CLEANING

Keeping your earphones clean is essential! Earwax (cerumen), body oils and perspiration can block the sound ports located at the tip of the earpiece. A clogged sound port will result in reduced output or distortion. To clean the sound ports, use the tool's wire loop to dislodge and extract debris from the sound ports, then use the brush to clear them away. Use moisture wicks to remove oils/liquids from sound ports. To clean outer earpiece surfaces, use a clean towel or alcohol-free wipes.



USE YOUR CLEANING TOOL BEFORE AND AFTER EACH EARPHONE USE.

## **EARPHONE ACCESSORIES**

To help make your IEM experience as trouble-free as possible, we offer the following accessory items through our online store:

Moisture wicks (absorbent strips for sound ports)
Dry & Store Zephyr electronic desiccant system
Dry-Aid renewable desiccant (drying agent)
Otoferm cream lubricant (insertion aid)
Earpiece soft wrap (fit adjustment)

Audio wipes (alcohol-free earpiece cleaner)

# CABLE REPLACEMENT

Our earphones feature coaxial (MMCX) cable connectors with 360-degree rotation for secure hold and easy field replacement. When replacing a cable, match the red and blue dots on the connectors and earpieces for correct left/right orientation. There will be an audible "click" when the connector snaps into place.



#### TECHNICAL SPECIFICATIONS

All models are custom molded with full-shell earpieces handcrafted from solid medical-grade soft silicone. The 2X-S, 2MAX, and 3MAX are two-way (single crossover) designs with balanced armature drivers, while the D2 is crossover-free, with dual dynamic drivers operating in parallel. All models are terminated in a standard 1/8-inch (3.5 mm) stereo min-plug.

Frequency Response 20-16.000 Hz

Isolation up to 45.5 dB; broadband avg. 37 dB

Noise Reduction Rating 29 dB

Impedance 2X-S: 27 Ohms minimum 2MAX: 23 Ohms minimum

3MAX: 14.2 Ohms minimum

D2: 19 Ohms minimum Sensitivity 2X-S: 100 dB-SPL

2MAX: 105 dB-SPL 3MAX: 114 dB-SPL D2: 101 dB-SPL

Weight 1 ounce (approx.)

Cable: Our field-replaceable cable is 52 inches with silver/clear jacket, secured to the earpieces with a plug-in coaxial connector. Options include black jacket and 60-inch length. Permanently attached and Teflon breakaway cables (black only) are also available.

Supplied Accessories: Hard-shell Pelican road case, pocket storage pouch, shirt clip, ¼" plug adapter, cleaning tool

For parts and accessories, order online at: store.sensaphonics.com For questions or repairs, contact us:

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## SOFT SILICONE CUSTOM EARPHONES



Congratulations on your Sensaphonics custom earphones, the most isolating, most comfortable IEMs available. These professional in-ear monitors provide greater broadband isolation than any others, with a documented Noise Reduction Rating (NRR) of 29 dB, and an average attenuation o of 37 dB across all frequencies.

Our custom-fit, soft silicone earpieces are the key. More isolating and comfortable than any other custom IEM material, medical-grade silicone allows deeper insertion to hold its high-isolation seal as the ear canal flexes during performance.

This User Guide covers the 2X-S, 2MAX, 3MAX (balanced armature, single crossover) and the D2 (dual dynamic) models, all with tour grade field-replaceable coaxial cables.

- The 2X-S and 2MAX are classic dual-driver designs with studio reference accuracy, while the 3MAX triple-driver adds 6 dB more bass presence.
- The D2 is the only dual-driver dynamic IEM with silicone earpieces, delivering greater warmth and deep bass in a crossover-free design.

Please take a few minutes to familiarize yourself with the proper usage and care of your new earphones. Carefully read and follow all cautions and instructions.

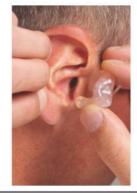
## INSERTION INSTRUCTIONS

With a little practice, inserting your Sensaphonics earpieces will become quick and easy.

STEP 1

Hold earpiece with red or blue dot on top. Blue = left, red = right. Drape the cable over and behind your ear, then down your back (see Step 6 photo).

[Note: 2X-S with permanently attached cable shown.]



## STEP 2

Insert the canal portion (the end with the sound ports) of the earpiece into your ear canal as shown.



#### STEP 3

Rotate the earpiece toward the back of your head as you push the canal portion in. It may help to pull back on your ear while pushing the earpiece in.

For a short video on IEM insertion, go to:

www.sensaphonics.com/inserting-earphones



### SOUND LEVELS AND HEARING PROTECTION

We strongly recommend that you learn to monitor at lower levels. While in-ear monitoring has the potential to act as hearing protection, studies have shown that without guidance, most IEM users tend to monitor at the same excessive volume needed with floor wedges. The exceptional isolation (37 dB broadband average) provided by your Sensaphonics earphones virtually eliminates ambient noise, allowing you to hear your monitor mix clearly at significantly safer volume levels. Our dB Check analyzer can provide actual in-ear levels and safe exposure times.

Noise induced hearing loss (NIHL) is a function of average and peak sound levels experienced over a duration of time. The following table shows recommended daily noise exposure on the OSHA and more conservative NIOSH scales. Even under optimistic OSHA conditions, 2 hours at 100 dBA would be the safe limit without protection, and this assumes no exposure to levels exceeding 85 dB the rest of the day. NIOSH recommends no more than 15 minutes at 100 dB. We urge you to make a conscious effort to *turn it down*.

### STEP 4

It is critical that the topmost helix portion of the earpiece is tucked into the fold of your upper ear (as shown in Step 5 photo). If the earpiece is not all the way in, you will not have a good seal, causing a significant loss of bass response.



# STEP 5

Once inserted, confirm the earpiece is fully inserted by pushing on the outer portion (again, pulling the ear back may help). Bend the cable so that it follows the contour of your ear. The cable's internal memory wire will help it retain proper shape.



# STEP 6

Cables can be adjusted to fit close to your head by moving the split adjuster

(zipper) up or down.

To confirm that you have
a proper fit and a full seal, go to
www.sensaphonics.com/test
and download the Sensaphonics

Audio Seal Test.



# SAFE EXPOSURE TIME

Level,dba NIOSH OSHA	85	88	90	91	94	95	97	100	105	110	115
NIOSH	8 hr	4 hr		2 hr	1 hr		0:30	0:15			
OSHA	16 hr		8 hr			4 hr	3 hr	2 hr	1 hr	0:30	0:15

These guidelines will only protect the "average" person, as some people are more susceptible to hearing loss than others. For your safety, we recommend using the NIOSH guideline.

The only sure way to know if you are experiencing hearing loss is through annual hearing checks from a certified audiologist. By tracking your hearing over time, changes in hearing can be identified and dealt with before permanent damage occurs. We strongly recommend that you see your audiologist regularly!

For more information on hearing conservation, please visit our website.