

Guardian™ G1

Wireless Audio System

- No long pneumatic tubes to manage for improved workflow
- MR Conditional wireless audio system for use with high field MRI up to 3.0T
- Integrates audio entertainment, the technologist's voice, and AutoVoice for optimum patient communication
- Dramatically attenuates gradient noise and hearing protection tested according to ANSI S3.19-1974
- Standard 3.5mm audio jack allows patients to listen to music from most audio devices
- FDA cleared



Studies show¹ that even with standard ear protection, MRI can damage hearing ability or cause tinnitus for weeks after an exam. Sometimes, the damage is permanent.

Meet Guardian™ G1: redefining the standard in hearing protection and patient comfort for MRI.

Excessive gradient noise during an MRI examination can cause discomfort, stress, and over time, may lead to hearing damage. The noise reduction rating (NRR), a unit of measurement used to determine the effectiveness of hearing protection, is an important consideration when selecting an MR audio system. The Guardian™ Wireless Audio System has an NRR of 29 decibels (dB), allowing its use without additional earplugs at noise levels up to 128dB. To facilitate its use in studies utilizing a head coil that cannot accommodate an over-the-ear headset, the Guardian™ Wireless Audio System includes a wireless earbud solution also rated at 29 dB NRR.

Prior to the introduction of the Guardian™ Wireless Audio System, most other MR audio systems have employed 1960s pneumatic tube technology. Wireless, tubeless technology is more comfortable than pneumatic tube systems and eliminates the possibility of the headphone displacement when the table advances. The speakers reside inside the headphones near the ear to provide the highest quality sound.



¹<http://www.radiologybusiness.com/topics/quality/3t-mri-can-alter-hearing-ability-weeks-after-exam>

The Guardian™ G1 Wireless Audio System installs directly to the existing technologist console making for a clean installation and allowing for both audio entertainment as well as technologist communication.

Technologist push-to-talk voice and AutoVoice commands automatically interrupt the music for clear communication to the patient.

Specifications

	Wireless Headphones	Wireless Earbuds	Transmitter and Console Interface	Battery Charging Dock
NRR ANSI S3.19-1974	29 dB	29 dB	N/A	N/A
L x W x H	19 cm x 10 cm x 20 cm	12 cm x 15 cm x 6 cm	17 cm x 8 cm x 3 cm	21 cm x 12 cm x 6 cm
Weight	565 g	285 g	180 g and 150 g	386 g
Device	 <ul style="list-style-type: none"> • Comfortable, MR Conditional, over-the-ear headphones • Individual right and left speakers with highest sound quality • Rechargeable batteries 	 <ul style="list-style-type: none"> • Comfortable, MR Conditional earbuds • Rechargeable batteries • Primary usage: head coil applications 	 <ul style="list-style-type: none"> • Wall-mounted transmitter including couplers for penetration panel, delivering wireless audio signals, and generating artifact-free images • Technologist console interface integrating wireless hearing protection with existing MR scanner console 	 <ul style="list-style-type: none"> • 4-slot charging dock to charge batteries when not in use • Compact: may be placed on desktop or mounted to wall

Device Functions

Wireless Headphones	Wireless Earbuds	Charging Dock	Battery / Battery Life	Radio
<ul style="list-style-type: none"> • Power button with LED indicator for both left and right side • Pairing button with LED indicator confirms wireless connection on both left and right side • Removable / rechargeable battery for both left and right side 	<ul style="list-style-type: none"> • Power button with LED indicator • Pairing button with LED indicator confirms wireless connection • Removable / rechargeable battery 	<ul style="list-style-type: none"> • Power On / Off • Battery status indicator • Simultaneous charging up to four batteries • Charging Time < 6 hours 	<ul style="list-style-type: none"> • Removable • Rechargeable Li-Po 3.7 V • 1000 mAh • 12 hours of continuous use 	<ul style="list-style-type: none"> • 2.4 GHz ISM band

Compatible Scanners

GEHC 1.5T and 3.0T MRI scanners release 14.0 or higher