LRAD
Overview and
Product Guide
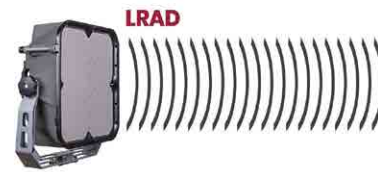
LRAD adds new dimensions to voice broadcast and mass notification systems

- Controlled broadcast dispersion

- Audible broadcasts feature industry leading clarity and intelligibility

- 30° audible transmission ranges out to 5,000 meters

- 60° - 360° audible mass notification coverage over areas up to 14 km^2

LRAD systems broadcast audible voice messages and alert tones with exceptional clarity over large distances to safely

- Warn & Notify

- Direct & Command

- Establish large safety zones

- Prevent misunderstandings

- Determine intent

- Resolve uncertain situations

- Alleviate the use of force

- Save lives

LRAD

Focused, Clear Sound
Long Range Broadcasts
Exceptional Voice Quality

BULLHORN

Sound Diffuses
Limited Range

LRAD Voice Broadcast Systems are Louder and Significantly More Intelligible then Bullhorns and Vehicle P.A. Systems

Advanced Technology

With its full line of voice broadcast and mass notification systems, Genasys provides advanced technology solutions that are rugged, reliable and easy to operate.

Superior Intelligibility

Safely optimized to the primary range of human hearing, Genasys' LRAD systems broadcast voice messages with industry-leading vocal intelligibility. Genasys' advanced XL™ Driver and Waveguide technology ensures voice and alert tones cut through background noise to be clearly heard and understood.

Clear & Unambiguous Communication

By maintaining a smooth frequency response, Genasys eliminates the audio variability inherent in other voice broadcast systems by preventing fading and producing clear, unambiguous communication across all broadcast frequencies.

LRAD Systems are in Service in a Range of Diverse Applications in 72 Countries and in more than 500 U.S. Cities

Defense

Today's military forces are required to support the full spectrum of missions from combat and counterinsurgency to disaster response and humanitarian assistance. Regardless of the assigned mission, clear communication and scalable escalation of force (EOF) are critical to success. LRAD systems are deployed by all U.S. Military branches and by international defense forces throughout the world.

Law Enforcement

LRAD is fundamentally changing the way law enforcement agencies conduct everyday duties and elevated risk operations. LRAD systems ensure law enforcement's warnings, commands and notifications are clearly heard and understood in every operational situation. Rugged, reliable, and easy to operate, LRAD resolves uncertain situations, safeguards the public and protects police officers.

Fire & Rescue

When Fire & Rescue teams need to communicate critical information to individuals or groups in harm's way, LRAD systems broadcast real-time messages with exceptional vocal clarity from close range to several hundred meters. LRAD alert tones and voice broadcasts can be clearly heard and understood inside buildings and vehicles.

Homeland & Border Security

Security measures that enhance public safety are top priorities in today's escalated threat environment. In any operational scenario, the products and systems that homeland security agencies use must be versatile, rugged, easy to operate and cost effective. LRAD turns passive surveillance systems into first responders by broadcasting critical information, instructions and warnings from close range out to 5,000 meters.

Critical Infrastructure

Throughout the world, LRAD systems are enhancing security at power plants, dams, embassies, government facilities, water treatment plants and other critical infrastructure. Most systems with cameras, thermal imaging, motion detectors and other sensors only watch. LRAD systems provide the vital 'first response' capability missing from observe-only integrated security installations. LRAD turns passive surveillance systems into first responders by broadcasting critical information, instructions and warning.

Wildlife Preservation & Asset Protection

The high costs of repairing and replacing commercial assets due to wildlife-related damage, costly penalties and bad publicity associated with harming wildlife, and the ineffectiveness of legacy deterrents, highlight the need for safer, more effective wildlife preservation and control solutions. LRAD's are easily programmed to broadcast an infinite variety of tones and predator calls to safely deter wildlife and ensure against habituation.

LRAD 100X

Self-contained, hand-held device for on-scene and tactical communication

Max. Range	2200 ft / 600 m
Peak dB	140
Continuous dB	137
Weight	15 lbs / 6.8 kg

The LRAD 100X is 20 - 30 decibels louder than bull-horns and vehicle P.A. systems and up to 6X louder than systems of comparable size and weight. Live or recorded audible voice broadcasts are clearly heard and understood over background noise, and inside vehicles and buildings.

» Powerful, intelligible communication out to 600 m

» Focused, directional sound pattern for targeted communication

» Create instant acoustic standoff perimeter

» 8-hour rechargeable battery

» Simple operator interface

» Water-resistant

LRAD 100X
MAG HS-KIT

Rapidly deployable, self-contained, on-scene and tactical communications kit.

Max. Range	2200 ft / 600 m
Peak dB	140
Continuous dB	137
Weight	22 lbs/ 10 kg

With wireless control out to 300 meters and a high strength, easy on/off magnetic mount system, the LRAD 100X MAG-HS Kit is designed for evolving tactical situations.

» Focused, directional sound pattern for targeted communication with unparalleled clarity

» Create instant acoustic standoff perimeter

» High-strength neodymium mount system

» Wireless system batteries operate up to 8 hours

» 8-hour rechargeable battery

» Water-resistant

» Includes shock-resistant transport case for all components

LRAD 450XL

The U.S. Army's long range communication and EOF system of choice.

Max. Range	5580 ft / 1700 m
Peak dB	150
Continuous dB	145
Weight	37 lbs / 16.6 kg

Low profile, lightweight and designed for temporary or fixed mounting on tripods, small vessels, vehicles, helicopters and remote weapon stations, the LRAD 450XL uses LRAD's patented XL driver technology to generate the audio output of devices almost twice its size and weight.

» Powerful, intelligible communication out to 1,700 m

» Voice Boost for extended coverage

» Safely communicate beyond standoff distances to determine intent

» Clear, long-range directional communication

» All-weather use

» Creates instant acoustic standoff perimeter

» Simple operator interface, lightweight and portable

LRAD 500X-RE

Compact long range communication system for mid-sized vehicles, vessels, and fixed installations.

Max. Range	6562 ft / 2000 m
Peak dB	154
Continuous dB	149
Weight	44 lbs / 20 kg

The LRAD 500X-RE is the U.S. Navy & U.S. Army's AHD of choice for small vessels. Easily transported, the LRAD 500X-RE provides highly effective communication and scalable EOF capabilities for public safety, defense, maritime and homeland security applications.

» Powerful, intelligible communication out to 2,000 m

» Voice Boost for extended coverage

» Creates instant acoustic standoff perimeter

» Rugged, military tested construction

» All-weather use

» Lightweight and portable

» Low power requirements: 60 W w/voice, 260 W w/ tone. Simple operator interface

LRAD 450XL-MMT

Advanced helicopter mounted air-to-ground communication system with full pan/tilt motion and industry-leading vocal clarity.

Max. Range	5580 ft / 1700 m
Peak dB	150
Continuous dB	145
Weight	168 lbs / 76 kg

Low profile and designed for temporary or fixed mounting on most helicopters, the LRAD 450XL-MMT features an adjustable mount with an integrated rechargeable power pack for full positioning and operation of the advanced air-to-ground communication system.

» Powerful, intelligible communication out to 1,700m

» Voice Boost for extended coverage

» Safely communicate beyond standoff distances to determine intent

» Clear, long-range directional communication

» All-weather use

» Creates instant acoustic standoff perimeter

» Simple operator interface,

» lightweight and portable

» Helicopter mounted

LRAD 500X-MMT

Helicopter mounted, air-to-ground communication system featuring rugged mount with full pan and tilt range of motion.

Max. Range	6526 ft / 1500 m
Peak dB	154
Continuous dB	149
Weight	181 lbs / 82 kg

Self-contained, self-powered, temporarily mounted and quickly removed following mission completion, the LRAD 500X-MMT features a rechargeable power pack for operation inside most helicopters. The 12-jaw cargo tie down quick disconnect adapters accommodate a variety of helicopter cabin floor mounting options.

» Powerful, intelligible communication out to 2,000m

» Quickly installed and removed from helicopter

» Self-powered for 6+ hours of continuous operation when fully charged

» Supplemental type certificates not required

» Simple operator interface

LRAD 1000Xi

Enhanced range communication and EOF system featuring rugged carbon fiber emitter head integrated with electronics and amplification.

Max. Range	9842 ft / 3000 m
Peak dB	159
Continuous dB	153
Weight	87 lbs / 39.4 kg

Designed for deployment on larger vehicles and vessels, the LRAD 1000Xi is a powerful hailer for defense, homeland, maritime and critical infrastructure security.

» Powerful, intelligible communication out to 3,000m

» Voice Boost for extended coverage

» Creates instant acoustic standoff perimeter

» Low power requirements: 190W w/ voice, 720W with tone

» Rugged, military tested construction

» Simple operator interface

» All-weather use

» Highly effective, scalable EOF, safer than kinetic deterrent options

LRAD 1950XL

Extended range communication, security and response system with scalable EOF for defense, border, maritime and critical infrastructure applications

Max. Range	16404 ft / 5000 m
Peak dB	160
Continuous dB	155
Weight	90 lbs / 41 kg

Utilizing LRAD's patented XL driver technology, which generates higher audio output in a lighter form factor, the LRAD 1950XL broadcasts audible hails, warnings and voice communications far beyond normal standoff distances, and safely initiates and scales EOF.

» Powerful, intelligible communication out to 5,000m

» Safely communicate beyond extended standoff distances to determine and alter intent

» Clear, long-range, directional communication

» Establish instant acoustic standoff perimeter

» Rugged military tested construction

» Simple operator interface

LRAD 950RXL

Extended range voice communication to monitor and secure borders and protect vessels, coastal properties, ports and critical infrastructure.

Max. Range	9842 ft / 3000 m
Peak dB	156
Continuous dB	151
Weight	180 lbs / 81.6 kg

Utilizing Genasys' proprietary full pan-and-tilt drive and XL driver technology, the LRAD 950RXL reduces manpower, false alarms and deadly incidents while providing a highly effective and cost efficient, remote first response security solution.

» Powerful, intelligible communication and scalable EOF out to 3,000 meters

» Remotely control all functions through TCP/IP connection

» All-weather use

» Rugged military tested construction

» Low power requirements

» When integrated with radar, creates a fully functional, automated perimeter presence

LRAD SoundShield

Broadcast powerful warning tones and highly intelligible voice commands in a 360° radius out to 100 meters

Max. Range	328 ft / 100 m
Peak dB	150
Continuous dB	102
Weight	22 lbs / 10 kg

Using optimized driver and waveguide technology, the LRAD Mobile SoundShield surrounds an equipped vehicle with sonic security and an attention-commanding communication capability when needed.

» Safe warning tone creates instant acoustic standoff perimeter around any vehicle

» Communicate out to 100 meters from the safety of a vehicle's interior

» Simple to operate user interface

» Two 8-hour rechargeable batteries

» Low power requirements

» All-weather use

LRAD Accessories

LRAD Wireless System

» Wireless control for LRAD 100X, LRAD 450XL, and all manually operated systems

» Runs up to 16 LRAD systems simultaneously

» UHF synthesized frequencies for up to 188 frequencies

» Operates up to 8 hours on two AA alkaline batteries

» Integrated push-to-talk (PTT) button and large volume control knob allow for simple one-handed operation

LRAD Portable 24V Power Pack

» Powers LRAD 450XL and LRAD 500X-RE

» Powered by leak-proof Absorbed Glass Mat (AGM) batteries

» Marine grade, electronically controlled battery charger

» Integrated battery level display

» 21 amp hour/ 24 VDC

» Up to 10 hours of continuous operation

LRAD Tripod

» Mounts LRAD 100X, LRAD 360XL-MID MOBILE KIT, LRAD 450XL, LRAD 500X-RE, LRAD 1000Xi

» Quickly mount and dismount LRAD systems

» Rugged, medium duty construction

» Optional wheeled hard case for storage and transport

LRAD Accessories

LRAD Action Cam

• Mounts on LRAD 100X, LRAD 450XL, LRAD 500X-RE, LRAD 1000Xi

• Rugged compact

• Audio and widescreen video capture

• Wide angle, focus free lens

• Date and time stamp

• Camera orientation detection

• Low lux, night mode

• Dual microphones significantly reduce wind noise

LRAD High Strength Mag Mount

» Magnetic base with 600 lbs. (272 kg) of holding capacity

» 120 lbs. (54.5 kg) of sheer force

» Holds LRAD securely to vehicle roofs and other steel objects

» Incorporates powerful neodymium magnets for secure attachment

» Base features instant On/Off knobs for easy placement and removal

Streamer

» Receives audio from an Ethernet network connection for playback through LRAD systems

» Connects to a TCP/IP network with DHCP or fixed IP address

» Included software allows prerecorded file playback, live microphone playback, volume control and operation of alert tone from a networked Windows computer.

» Streamer software works with any microphone connected to the PC's standard microphone input

	LRAD 100X	LRAD 100X MAG-HS	LRAD 450XL	LRAD 500X-RE
Max dB	140 dB	140 dB	150 dB	154 dB
Cont. dB	137 dB	137 dB	145 dB	149 dB
Max Range	600 m	600 m	1700 m	2000 m
Power	10.8 - 16.8 VDC Rechargeable Battery	10.8 - 16.8 VDC Rechargeable Battery	12-28 VDC	12-28 VDC 100-220 VAC

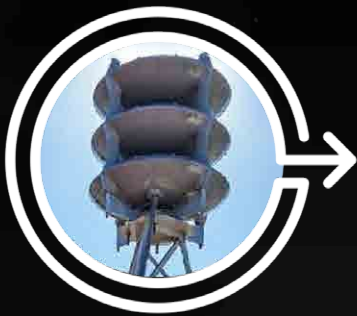|	LRAD 450XL-MMT	LRAD 500X- RE MMT	LRAD 950RXL	LRAD 1000Xi	LRAD 1950XL
Max dB	150 dB	154 dB	156 dB	159 dB	159 dB
Cont. dB	145 dB	149 dB	151 dB	153 dB	153 dB
Max Range	1200 m	1500 m	3000 m	3000 m	5000 m
Power	12-28 VDC	12-28 VDC	48 VDC (+3%) at 15 Amps max	90-260 VAC 50/60 Hz	90-260 VAC 50/60 Hz

Genasys™

A History of Critical Communication Innovations

2003

Created the Acoustic Hailing Device (AHD) market with the introduction of the first LRAD systems

2012

Introduced the world's first voice-based multi-directional mass notification systems featuring industry-leading vocal intelligibility

2018

Acquisition of Genasys Spain and its National Emergency Warning System (NEWS) is the catalyst in innovating advanced Critical Communications and Mobile Mass Notification software solutions

2020

AMIKA Mobile (now Genasys Communications Canada) acquisition provides software technology solutions for Emergency Management and Enterprise Safety

About Genasys

Genasys Inc. is a global provider of critical communications solutions that help keep people safe. The Company has a long history of delivering innovative technology and superior quality to our customers and partners. Genasys created the acoustic hailing device (AHD) market with the introduction of its proprietary LRAD systems in 2003, followed by the introduction of the Company's revolutionary voice-based mass notification systems in 2012. In 2019, Genasys launched the mass notification industry's first unified multichannel Critical Communications and Enterprise Safety platform.

Genasys provides a multichannel approach to deliver geo-targeted alerts, notifications, instructions, and information before, during, and after public safety threats and critical business events. The Company's unified critical communications platform includes Genasys Emergency Management (GEM) applications, National Emergency Warning Systems (NEWS), LRAD® long-range voice broadcast systems, and more.

Genasys products are in service in 72 countries around the world in diverse applications, including public safety, national emergency warning systems, mass notification, defense, law enforcement, critical infrastructure protection, and other applications.