



SPECTRA i.NET®

ENGINEERED SYSTEM SOLUTIONS FOR
SOUND MASKING, PAGING & AUDIO

SPECTRA i.NET®

The Intelligent Network

Lencore is committed to providing solutions, products and services that transform environments and change people's lives by creating more privacy, greater comfort and improved safety. The Lencore **Spectra i.Net** system is designed to promote collaboration and encourage creativity while delivering acoustical comfort and emergency communication solutions.

The leading choice of innovators and companies throughout the world, **Spectra i.Net's** intelligent network is the most sophisticated sound masking and paging system in the industry. Our superior sound quality, unmatched speaker design and built-in sound frequency controls is unrivaled by market competitors. What makes **Spectra i.Net** so intelligent is its extensive network capabilities, intuitive technology and infinite system flexibility to suit any project size.

With the most advanced technology and by offering more choices with proven results, **Spectra i.Net®** is in the position to meet the challenges and demands that impact your facility.

About Our Engineered System Solutions

The **Spectra i.Net** Engineered System Solution uniquely addresses the proper requirements for sound masking, paging, audio and mass notification for today's facilities. Each system successfully masks intrusive speech, creates privacy and delivers intelligible paging and audio solutions to ensure intended audiences are well informed and comfortable in their environments.

The system offers virtually limitless zoning capabilities, plug and play speaker options as well as a revolutionary intuitive Graphic User Interface (GUI) for central system controls. The **Spectra i.Net** System is also capable of local, remote and Infrared (IR) controls.

Floor-to-floor, building-to-building, across the campus or around the world, **Spectra i.Net** provides innovative and flexible solutions to enhance the workplace environment. Whether you are an established industry leader or an innovative organization poised for growth, we believe it is our responsibility to help you create a comfortable, productive and safe work environment.



Spectra i.Net® Features

- + Superior sound quality and uniformity that provides speech privacy and comfort
- + Single point of control for complete system access, viewing and reporting
- + Control options via PC, touch pad, remote control and tablet applications
- + Infrared audio channel controls are used in-plenum, on the wall or with a keypad
- + Open platform system design that easily integrates with building systems
- + Adaptive equalization
- + Zone control with overlap capabilities

Spectra i.Net® Advantages

- + Unrivalled sound quality and speaker design
- + Meets ASTM standards for speech privacy
- + Requires no proprietary software or cabling
- + Local, global and prioritized paging
- + Ease of use, installation and tuning
- + Simple integration with Crestron, AMX, BACnet, Cisco and other control systems
- + UL Listed for air-handling spaces and use in the plenum
- + Ability to integrate and provide mass notification systems
- + Detailed diagnostics & reporting
- + 10 Year Full Warranty
- + Meets ACMU for comfort

Spectra i.Net® Integration

Spectra i.Net is built on an open-platform design that makes integrating with other control devices and protocols simple. On-site adjustments can be made through a variety of applications such as a PC, tablet, Crestron, AMX and other control devices. System control options have never been easier, faster or more cost effective.

INCONCERT PARTNER



INTEGRATED PARTNER



Spectra i.Net is unparalleled in its ability to create speech privacy and is the only system that comes pre-rated to meet the Acoustical Comfort Metric Unit (ACMU).

Scalable. Intuitive. Intelligent.

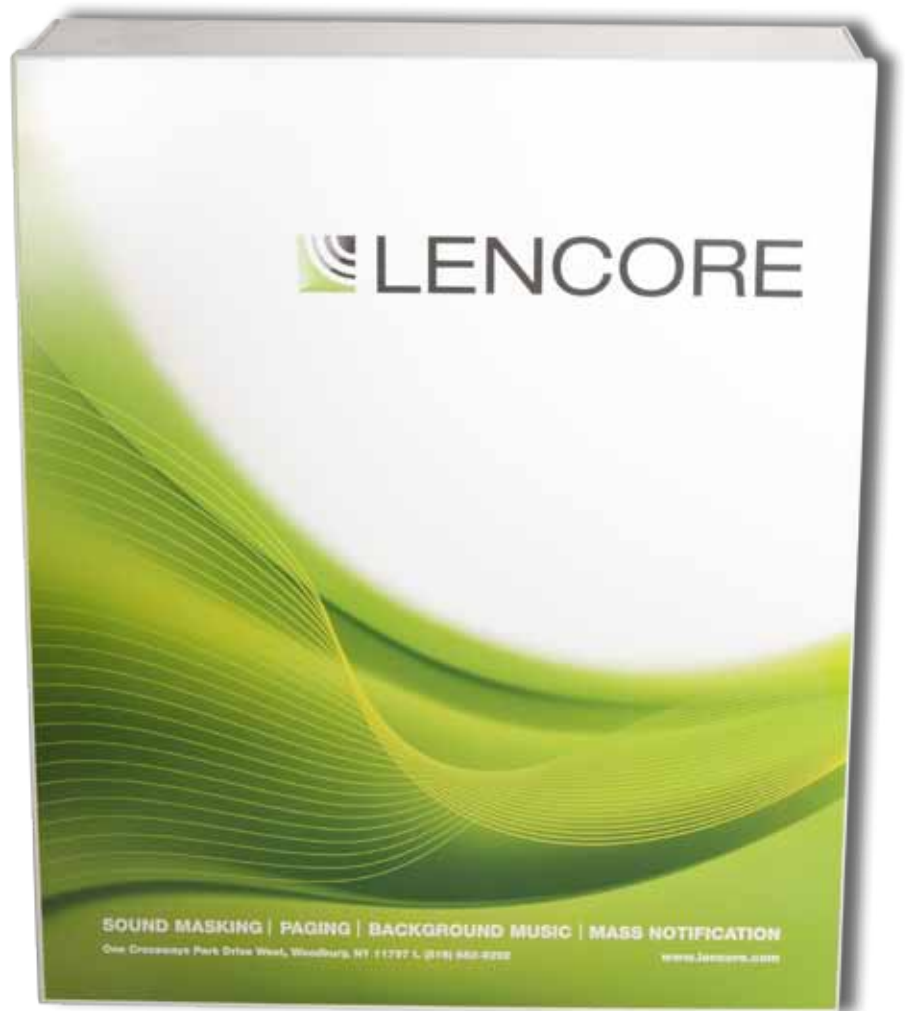
WITH LENCORE, IT'S ALL IN THE BOX

For ease of use and installation, Lencore's **Spectra i.Net** is offered as a completely packaged solution. Shipped in a branded enclosure, the system's entire headend equipment is expertly assembled, pre-wired and ready for on-site installation.

The Headend Equipment Includes:

HEADEND

Spectra i.Net®
Engineered System
Solution with Enclosure
for wall mounted
applications.



The three RU drawer offers a rack mounting option for installation of the Spectra i.Net® headend equipment.

The system's web server controls the network and provides flexibility to access the system, monitor settings, manage zones and make other changes from virtually anywhere – on-site, off-site, or around the world.

This robust network operates on an open platform and provides one point of access for up to 1.5 million square feet of space.

The web server allows integration to building control system's IP, RS232 and contact closures.

The web server also enables the system to trigger email, email to text & tweet messages for real time reporting.

The Jordna Hub ties multiple facilities together.

The Free Topography Terminator enables the network to travel in any loop or star configuration.

The system is fed by a dedicated 110v outlet. Integrated surge suppression and power supplies can also be housed within the enclosure.

The MPI (Music Page Interface) replaces all of the bulky headend equipment typically associated with music and paging systems. The MPI has the ability to set up 99 individual zones, including zone overlap, for paging and emergency paging.

The Spectra i.Net system has the option to include a local and global MPI to create multiple building paging with programmable prioritization of input and paging devices.

The Record, Audio, MPEG Player (RAMP) can provide up to 58 independent, pre-recorded messages reducing human error to deliver clear and consistent messaging.

The system can also include adaptive equalization to automatically compensate for frequency line loss across the wiring of the entire building to ensure the clearest, most intelligible page possible.

The microphone pre-amp with AGC (Automatic Gain Control) adjusts line level inputs for mic and audio to ensure a crystal clear signal.

The Smart Switch creates system redundancy for paging, audio and network controls with reporting features.

The Spectra i.Net® Engineered System Solution is fully assembled in a branded enclosure that creates a professional, organized and accessible space for the headend equipment.



Key Criteria: Privacy & Comfort

A quality sound masking system must simultaneously provide both privacy and comfort throughout any facility. For privacy, a system must meet a variety of industry tests, parameters and measurements to ensure speech unintelligibility. Measurements for comfort, previously considered subjective, are now defined and measured by the following five qualities: audio distribution range, uniformity of sound throughout a space, wraparound of generated sound, target decibel (dB) level and the achieved privacy measurements. Not only does **Spectra i.Net** let you customize an environment like no other available system, it outperforms competitive systems on every point that matter for speech privacy and comfort.

System Inputs

Lencore's Engineered System Solutions provide you with a variety of options for inputs including but not limited to:



+ Telephone



+ Fire Alarm



+ Microphone



+ Music



+ Other Audio Sources (ex: Sirius, Mood Media, Pre-recorded Messages, etc.)

Lencore's Engineered System Solution Starts with Customized Quality Sound

The heart of the **Spectra i.Net** System is the Operating Platform (OP). The OP is the primary sound source that produces, equalizes and distributes the sound masking, paging and audio sources. OP's are typically located in the ceiling plenum.

Each OP features:

- + Multiple sound sources that produce perfectly random sound quality with no audible repeats
- + Independent equalizers for unprecedented tuning where every channel of the system has a separate and independent 1/3 band and parametric equalizer
- + An integrated LCD screen that displays information, including the specific address of each OP. Each address helps locate the correct OP within the ceiling plenum and eliminates the need for as-built drawings when updating and modifying the system
- + Diagnostics and check points for system performance
- + An integrated IR eye that includes the ability to remotely locate the IR access to a port or wall switch to control the masking, paging and audio
- + Sound frequencies that can be adjusted and set to any point on the acoustical curve, from 20Hz to 20KHz, making fine-tuning of the entire spectrum of sound possible



The Spectra i.Net® Operating Platform is engineered to provide sound with no audible repeats. To achieve this quality, unequaled in the industry, Lencore leverages a digital signal processor (DSP) that produces and distributes sound over four independent output channels for each OP.

Speakers

Lencore offers the highest quality speakers in the sound masking industry with the widest dispersion that perfectly reproduces the finest masking sound. Our superior sound quality outperforms competitive systems to deliver more privacy, greater comfort and improved safety.

Spectra i.Net offers in-plenum and direct fired speakers to suit all ceiling applications and types. Ethernet-jack style connectors are integrated into each speaker and OP, eliminating the need to strip and connect wires, reducing installation time.

Spectra i.Net® Speaker options include:



Upward & Downward Firing



Ceiling Plate



Paging Horns



Decorative



Junction Box



Solid Drive

It's All About Control Digital, APP Based, Remote & IR System Access

Spectra i.Net can be controlled and adjusted in a variety of ways to offer clients multiple access, tuning and system configuration options. Real time system controls are made on-site or off-site and are also available digitally through a web interface. In addition, other building control systems can be integrated. The system also offers adjustable control settings at any IR port or wall plate location.

NO COSTLY REWIRING

Since each sound masking channel can be digitally controlled for sound and zone management, there is no need for rewiring. Zones can be reassigned without the need to go back into the ceiling.

USER INTERFACE

The zoning and programming flexibility of the **Spectra i.Net** System is unprecedented. To simplify control, system setting adjustments, tuning and reporting can all be made through Lencore's user interface.



On-site, off-site or around the world, Spectra i.Net® offers unprecedented system access, zoning and control while providing superior sound quality for sound masking, paging and audio systems.



Spectra i.Net Configurator

Designed with acoustical & audio consultants in mind, yet simple enough for end users to manage and control, the **Spectra i.Net** Configurator allows users to access system settings, information and reporting.

Use the Configurator to:

- + Provide an OP or zone centric view of the entire system
- + Drill down to a single device, channel, zone, group or setting
- + View and maintain global settings
- + Edit any setting manually or remotely
- + Create zones, zone overlaps and groups
- + Label, name and rename all configurations
- + Export information to a spreadsheet for reporting and diagnostics

Dashboard system access for real time adjustments through the Sound Manager

The Sound Manager is included with every **Spectra i.Net** System and is based on an open-architecture software platform. This program monitors and provides instant access to adjust all controls. Our user friendly interface is housed on the **Spectra i.Net's** web server (i.Lon) and can be accessed remotely through a password protected portal or through a direct connection at the controller.

Use the Sound Manager to:

- + Change group settings for sound masking, paging and audio
- + Adjust a variety of volume, control and equalization settings within both channels and zones for masking, paging and audio
- + Reset system to factory set command or last saved
- + Run diagnostics that include critical features such as a self-check status and a tone to test and locate speakers
- + Control the system wirelessly





Additional Options & Accessories

To expand the features and customize your **Spectra i.Net®** Engineered System Solution, optional equipment can be added for enhanced system access, control and functionality. To meet the unique needs of your space, **Lencore** offers a variety of mounting hardware and hanging methods for local codes and site conditions.



+ IR Touch Pad

Provides wall access and immediate system adjustments in areas or rooms where individualized control is desired.



+ AE Router

Ensures quality data transmission, paging and music integrity across long cable runs.



+ Jordna Hub

Provides additional break out capabilities for the system and can connect multiple buildings to one point of centralized control.



+ Local/Global MPI

Offers additional features for prioritized paging levels on a local and global system scale.



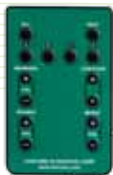
+ Smart Switch

Provides total data and audio redundancy to ensure message delivery and detects and reports any failure or data interruption when paging for mass notification.



+ RAMP

This record, audio, MPEG player provides a platform for the storage and playback of pre-recorded messaging to provide critical information and directions to follow in the case of an emergency.



+ Remote Control

Available with every system is a handheld remote control that provides immediate volume and contour control adjustments for masking, and volume for paging and audio.

Mounting Hardware

Mounting methods can vary based on your site conditions and particular project.

Choose from the following:

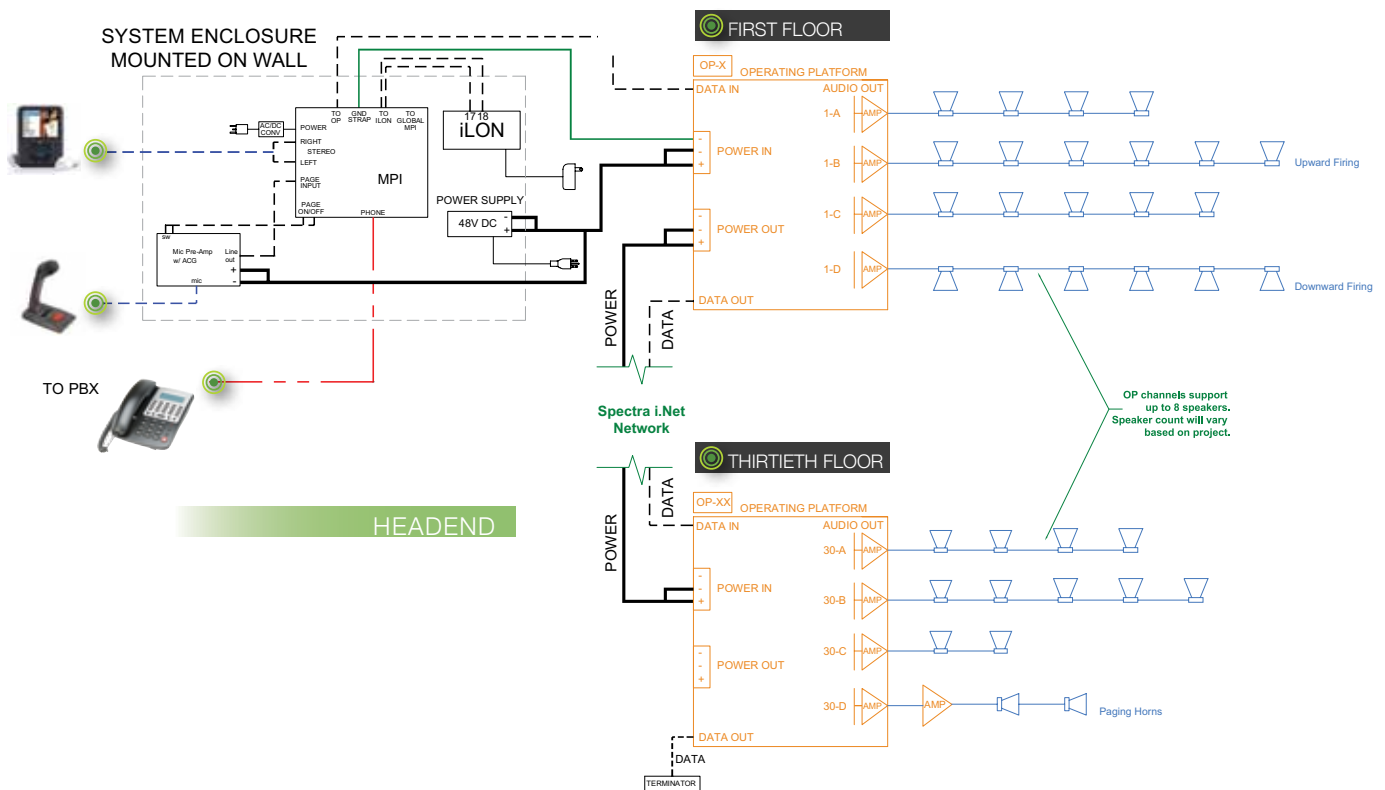
- + Standard Jack Chain
- + Airplane Wire
- + Tripod Chain (for seismic areas)
- + Junction Box (for conduit applications)

Following the flow of the SPECTRA i.NET® SYSTEM

From Inputs to Headend Equipment to Outputs, the **Spectra i.Net** system offers a completely packaged solution. Ease of use, flexibility and a robust platform make **Spectra i.Net** the system of choice whenever a networked solution for masking, paging and audio is required.

OUTPUTS

INPUTS





Founded in 1990, Lencore has a long history of providing innovative systems for sound masking, paging, background music and mass notification. Our advancements in sound quality, audio distribution, software and networking solutions have propelled Lencore to industry leadership. We are proud that our products are manufactured in the USA and offer an unparalleled 10 year warranty.

Contact Lencore for more on our Engineered System Solutions for speech privacy, comfort and emergency communications, Preventative Maintenance and Service Contracts, Dealer Programs, GSA Offerings, LEED Credits and other capabilities.

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