PAGING & AUDIO OVERVIEW

A MOMENT OF CLARITY CAN MAKE A WORLD OF DIFFERENCE
PAGING & AUDIO

Whether a stand-alone, part of our sound masking system, or an integral component of our n.FORM™ mass notification and emergency communications solution, Lencore’s offering delivers an intelligible page and audio output that is right for your application. From small, single zone applications to multi-zone complex campus connectivity, Lencore has the right-sized solution to meet your needs.

Communication is vital to every business. Whether it is to an individual, small group or ALL CALL, paging is an effective means of grabbing an audience’s attention – no matter if it is a simple notification or emergency announcement. Whatever the application may be, a successful paging system delivers a clear signal to the intended audience with an intelligible message.

Audio is ambiance. An organization can set the tone for the behavior of employees, clients or occupants through the use of background music or other audio sources. From reception areas to cafeterias to open office or boardrooms, audio sets the tone for the activity to be performed.

When designing a paging & audio system Lencore focuses on five key criteria to ensure the solution’s performance exceeds expectations:

Clarity
At the core of our n.FORM solution is intelligibility of the message. Lencore designs system layouts to meet the Sound Transmission Index for Public Address (STIPA) for intelligibility within a space. A page shouldn’t just be loud – it should be understood. And, an audio feed shouldn’t be distorted – it should be crisp and clear.

Uniformity
Proper speaker selection and placement are important in the overall design to insure that the message and audio are clear. Without designed sound uniformity the intended recipients could experience “hot” and “cold” spots where the message or audio is too loud or too quiet.

Ease-of-Use
Whether it is a microphone, telephone, VOIP, iPod or other system, it must be easy to use. Pre-recorded messages, particularly for emergency events, are easily integrated and triggered through the system as well.

Prioritization of the message
Some situations require various levels of prioritization in the page. The Lencore system can address emergency, prioritized, and standard paging, in the same system. Furthermore, pages have the ability to “stack” and stay in queue when they are overridden by prioritized pages.

“A page shouldn’t just be loud - it should be understood”
Networked Solution

Lencore offers multi-zone solutions through a networked system. The n.FORM system provides a clear page solution that can expand to multiple buildings across the street or around the world. A few basic components are required:

- Music Page Interface (MPI)
- Operating Platform (OP)
- Power Supply
- Speakers
- Telephone Systems
- Audio Input(s)

Adding a microphone is simple with a few additional components:

- Microphone
- Pre-Amp AGC (Automatic Gain Control)

The option of a control server, Lencore’s i.LON® SmartServer, is available for programming and changing control functionality. Lencore’s platform meets ANSI 709.1 for open controls.

In certain situations stacking, or queuing, paging messages is important. Lencore offers a solution that allows pages to be played in the order they were placed. This alleviates the need to wait for a page to clear before placing another page, creating efficiency. Furthermore, if prioritized paging is a factor the system can allow an override to take precedence over the queued pages and then return to that stack of pages.

Non-Networked Solution

A stand-alone paging & audio solution is available from Lencore. Whether it is a single speaker or multiple speakers, this non-networked system delivers the same clarity for which Lencore has become known. In its simplest form, this solution can be delivered using:

- Speaker(s)
- Amplifier
- Microphone
- Audio Input(s) for background Music
Expansion

The Lencore solution has a variety of additional components to allow easy expansion. Although most performance requirements are similar, each customer is unique and therefore we do not offer a one-size-fits-all solution. Lencore will optimize the design to meet your specific needs and minimize the impact on the budget.

In the case of n.FORM as part of a mass notification and emergency communication solution, Lencore’s paging capabilities also take the outside of the building into account. With MagnaCast™ and OmniCast™, Loud Voice speaker array options are also available. These speakers deliver intelligible messages up to 1.24 miles distance at 70 dB, depending on conditions and equipment, directing those outside to safety.

Pre-recorded messaging may be delivered locally and globally to any of the programmed zones whether in a single facility, a campus or through a network of buildings. Pre-recorded messages are becoming commonplace in order to deliver a clear, crisp, professional message and eliminate human error in the event of an emergency.

Lencore’s network systems are designed on an open-platform that makes integration and interfacing with other control platforms and building control systems simple.

Lencore’s robust n.FORM mass notification system provides system redundancy, a critical concept in order to ensure continuous system operability. This fail-safe enables the system to automatically reroute all messages should a break in the data transmission for the systems audio messaging be interrupted.

Furthermore, reporting capabilities for the n.FORM system provide real time notifications should the system be tampered with, fall off-line or if the integrity of the system component is compromised. Alert messages are automatically triggered so that issues can receive immediate attention and be resolved.
Features and Benefits of the Lencore Paging & Audio system:

- **Intelligibility**- The system is designed to deliver a signal that meets or exceeds the 0.5 minimum requirement on the STIPA\(^1\) scale for intelligibility.
- **Independent volume control**- The noise source produced is independent from masking and audio outputs when used in the same system. Each speaker channel can be independently tuned to achieve the desired output.
- **Independent 10-Octave band equalization (EQ) control per speaker channel**- If there is a specific curve that is required to be set on the speaker’s EQ this can be accomplished in 0.5 decibel (dB) increments.\(^2\)
- **Inputs**- Up to six audio inputs are available through the system giving the user flexibility in delivery and zoning options.
- **Multi-Drop Network**- In a networked solution, Lencore utilizes a multi-drop network which delivers a higher level of performance. A single node failure will not cause the rest of the system to go down or inhibit any data and audio from transmitting.
- **Mute/Unmute**- Lencore’s system delivers flexibility in paging mute and unmute functionality.
- **Control**- Lencore’s network system easily integrates with control devices from such manufacturers as Crestron, AMX and Cisco Systems, etc.
- **10-Year Warranty**- Believing in our product, Lencore offers an extended system warranty.

\(^1\) STIPA is The Sound Transmission Index for Public Address
\(^2\) The paging 10-octave band EQ is independent from the masking 30-octave band EQ that is emitted from the same speaker

A node = an Operating Platform
The difference between Mass Notification and Paging

A clear distinction exists between paging and Mass Notification Emergency Communications (MNEC.) Paging has industry design guidelines while an MNEC solution has industry standards according to the National Fire Protection Agency code NFPA72: Fire Alarm and Signaling. Although both typically employ the use of the Standard Transmission Index for Public Address (STIPA) standard, as a good business practice for intelligibility, there is no criteria for a paging system. An MNEC system must meet a 0.5 or greater rating on the STIPA scale. In addition an MNEC system also must meet design intent for Reach, Clarity, Redundancy and Reporting.

MNEC

An MNEC system has specific standards for the signal output over the ambient background sound. And, an MNEC system must achieve the four critical criteria of:

Reach
A message must reach 100% of its intended audience 100% of the time.

Clarity
The message must be intelligible and also understood in order to direct the intended audience to safety.

Redundancy
The system itself must have redundancy in order to overcome systematic structure failure such as wire or node compromise.

Reporting
Systems need to be able to report their working conditions and report a fault should one occur.
At Lencore we believe that PEOPLE MATTER. Our systems transform environments that change people’s lives by providing more privacy, greater comfort and improved safety. Our advancements in sound quality, audio distribution, speaker design and software networking solutions have established Lencore as an industry leader.

Founded in 1990, Lencore has installed sound masking, paging, audio and mass notification systems for thousands of companies in over hundreds of millions of square feet across the United States and around the world.

As the premier manufacturer of global solutions for speech privacy and emergency communication systems, Lencore does not believe in one size fits all solutions. We offer clients the choice of networked, in-plenum, direct fired, centralized, decentralized and remote masking, paging and audio systems.

With the most advanced technology and by offering more choices with proven results, Lencore is in the position to meet the challenges and demands that affect your facility.

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