





# OUR TARGET.

## PROVIDING SOUND. THAT WORKS.

For the last forty-five years, our company has exclusively focused on developing sound masking technology. During that time, we've built an extensive client list ranging from small business to the world's largest corporations, as well as a global distribution network dedicated to providing exceptional customer service.

In 2000, we embarked on a from-the-ground-up re-envisioning of sound masking, resulting in the 2003 launch of the world's first networked system: the LogiSon Acoustic Network. It's now a recognized industry leader with over twenty awards for innovation, performance and ease of use.

This catalogue tells you about the LogiSon components. But in the end, sound masking isn't just the hardware. It's a *service* provided by professional technicians who know the desired effect isn't achieved the moment they power on the equipment, but rather through a post-installation process called 'tuning' that ensures the sound consistently meets an independently-proven masking curve.

With its small zones, decentralized sound generation, full-range loudspeakers, fine volume and third-octave frequency controls, the LogiSon Acoustic Network is uniquely designed to give our technicians all of the right building blocks needed for that process. We also equip them with TARGET, an application that leverages its networked architecture in order to tune with previously unachievable accuracy.

Designed right. Tuned right. It's a powerful combination. And the result is more consistent, comfortable and *effective* sound masking.





The LogiSon Acoustic Network has earned the Works with WELL mark, indicating its alignment with specific WELL strategies aimed at uniformly increasingly speech privacy within and between occupied spaces.

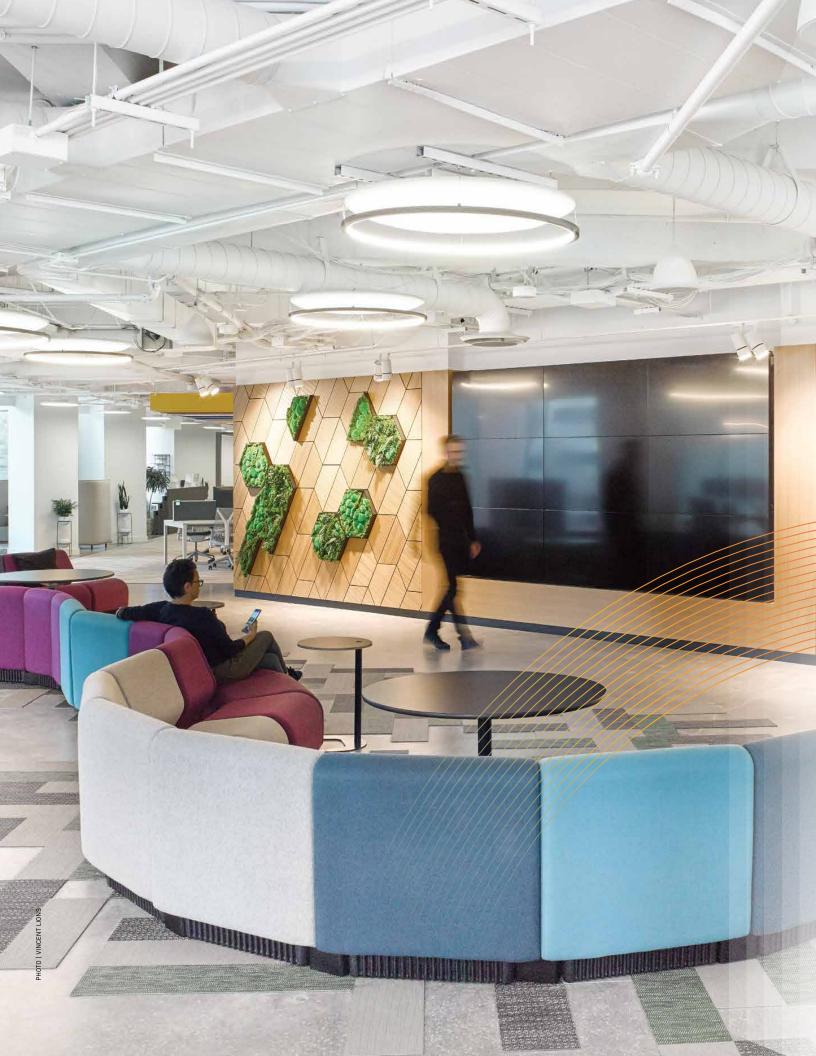




# CONTENTS

Your LogiSon Representative selects the components and designs the system's layout. Installation can be handled by their in-house staff, a third-party, or your own electrical or audio contractor, after which your rep commissions the system, including TARGET tuning.

| CONTROL                              |     |
|--------------------------------------|-----|
| System                               |     |
| Network Control Panel                | . 8 |
| Acoustic Network Manager             | . 9 |
| Area                                 |     |
| Programmable Keypad + Remote         | 10  |
| Room Manager                         |     |
|                                      |     |
| HUBS                                 |     |
| Primary Hubs                         |     |
| Secondary Hub                        | 15  |
| LOUDSPEAKERS                         |     |
| Loudspeaker                          | 18  |
| Transducer                           |     |
| Chicago Loudspeaker                  | 21  |
|                                      |     |
| ACCESSORIES                          | 0.4 |
| Ceiling Mount Adapter                |     |
| Low-Profile Adapter                  |     |
| Wall Mount Adapter                   | 21  |
| CABLES                               |     |
| Cable Assemblies                     | 30  |
| Cable Couplers                       | 31  |
| Field Connection Whips               | 32  |
| Cables                               | 33  |
| POWER                                |     |
| Power Supply                         | 7.6 |
| Power Coupler                        |     |
| 1 ower coupler                       | 07  |
| PAGING & MUSIC                       |     |
| Audio Input Modules                  | 40  |
| Page Director                        | 41  |
| SECURITY                             |     |
| Relay Output Module                  | 11  |
| Acoustic Network Supervisor          |     |
|                                      | . • |
| MANUFACTURER                         |     |
| About Us                             | 46  |
| CRECIFICATIONS                       |     |
| SPECIFICATIONS Soundmaskingspecs.com | ΛQ  |
| outhurnaskingspecs.com               | 40  |





he LogiSon Acoustic Network offers both hardware- and software-based control. Following renovations, moving furniture or personnel, changes—even to zoning—can be made in minutes. Ease of future reconfiguration reduces lifecycle costs, while ensuring peak performance.

# **Network Control Panel**

Conveniently manage the LogiSon Acoustic Network's zoning and settings from one location. Network multiple panels together to provide multi-floor, whole-building or campus control. For retrofits, activate the gradual ramp-up feature, which progressively increases the masking volume over a period of up to 60 days. From that point, use the sophisticated timer to schedule the masking volume to match expected activity levels throughout the day, week or month, as well as on holidays. Changes are made at a gradual, user-defined rate so as not to draw occupants' attention. Non-volatile memory ensures settings are preserved in the event of a building power failure. Panels can also be connected to a third-party control system. For details, see the user guide.





## **NCP**

| Control Performance   | Network initialization, masking, paging, timer, keypad settings zoning, paging/music inputs, system monitoring and diagnostic |  |  |
|---|---|--|--|
| Masking Performance   |   |  |  |
| Volume  | 35 to 85 dBA @ 1 m in 0.5 dBA steps + mute  |  |  |
| Equalization (w/ PC)  | 1/3-octave, 23 bands, 63 to 10,000 Hz   |  |  |
| Paging Performance  |   |  |  |
| Audio Inputs  | 3, any combination of auxiliary, telephone and microphone   |  |  |
| Zone Configuration  | Zone 1, 2, 3 or none; unlimited zones with Page Director  |  |  |
| Volume  | 35 to 85 dBA @ 1 m in 0.5 dBA steps + mute  |  |  |
| Equalization (w/ PC)  | 1/1-octave, 8 bands   |  |  |
| Timer Performance   |   |  |  |
| Zones   | Up to 9 zones per panel; no restrictions to zone size   |  |  |
| Scheduling  | Unique schedule for each day of the week  |  |  |
| Volume Changes  | Up to 9 changes per day in 0.5 dBA steps  |  |  |
| Rate of Change  | 0 to 9 minutes per volume increment   |  |  |
| Exception Schedules   | Up to 30 dates, 3 user-defined schedules  |  |  |
| Ramp Up Feature   | Up to 60 days, user-defined schedule in 0.5 or 1 dBA steps  |  |  |
| Components per Panel  | Max. 125 components and 375 loudspeakers  |  |  |
| Network Type  |   |  |  |
| Upstream from Panel   | Open; protected with 128-bit AES encryption   |  |  |
| Downstream from Panel   | Closed; standard RS-485   |  |  |
| Connections   |   |  |  |
| Power Input   | 3-pin, screw terminal   |  |  |
| Network Output  | 6-pin   |  |  |
| Ethernet Connection   | 10/100 Base-T RJ-45   |  |  |
| Audio Inputs  | 3-pin, screw terminal x 3   |  |  |
| Priority Page   | 2-pin, screw terminal   |  |  |
| Power   |   |  |  |
| Input & Output  | 30 VDC  |  |  |
| Consumption   | Maximum 12 W  |  |  |
| Ground  | Earth ground  |  |  |
| Relay Outputs   | 2-pin, screw terminal x 2   |  |  |
| Battery   | ½ AA; 3.6 V; 10-year life expectancy  |  |  |
| Physical Specifications   |   |  |  |
| Dimensions (W x H x D)  | 28 x 23 x 7.6 cm; 11 x 9 x 3 inches   |  |  |
| Enclosure   | Steel with charcoal grey powdercoat finish  |  |  |
| Weight  | 2 kg; 5 lbs   |  |  |
| Keypad  | 20-key membrane panel with backlit LCD display  |  |  |
| <b>Mounting</b> 4 keyhole mounting positions                                |   |  |  |
| Security  |   |  |  |
| Physical  | Key-lock enclosure  |  |  |
| Electronic  | Password required to access settings, 3 levels  |  |  |
| Warranty  | 5 years; see LogiSon® Product Warranty for details  |  |  |
| Certifications Meets UL, CE, ACMA (C-Tick) and FCC standards RoHS compliant |   |  |  |

# **Acoustic Network Manager**

Control the LogiSon Acoustic Network from a PC. Prior to use, configure the software's interface to show or hide functionality, depending on access levels. For details, see the help file or user guide.



## **Networking NCPs**

The Network Control Panel (NCP) provides an Ethernet connection, allowing NCPs to be networked together—just as computers can be networked in an office environment—and controlled using Acoustic Network Manager (ANM).

If the client does not want to connect the LogiSon Acoustic Network to their IT network, it can be implemented as its own dedicated network or on a separate Virtual Local Area Network (VLAN).

If the client wants to connect the LogiSon Acoustic Network to their IT network, the LogiSon software connects to the NCP(s) via TCP sockets. When linked with the LogiSon software, the NCP(s) only responds to its commands and all communication is encrypted. The NCP does not broadcast on the client's network and accounts for very little traffic.

If desired, the client can also provide remote access—as well as control over additional buildings—via the internet/intranet.





### **ANM**

| Operating Systems     | Windows 11  |  |  |
|-----------------------|---|--|--|
|                       | Windows 10  |  |  |
| Architectures         | X86   |  |  |
|                       | X64   |  |  |
| Hardware Requirements | Computer with 1 GHz or faster processor with 1 GB RAM or more                                   |  |  |
|                       | Graphics parts supporting WDDM drivers<br>(Windows Display Driver Model) recommended            |  |  |
|                       | Minimum disk space (Microsoft components/Installation):<br>X86 - 4.5 GB; X64 - 4.5 GB           |  |  |
|                       | Disk space (LogiSon components): 22 MB  |  |  |
| Prerequisites         | Microsoft .NET Framework 4.8 or later (incl. with Windows 10 May 2019 update (v. 1903) or later |  |  |
|                       |   |  |  |

# **Programmable** Keypad + Remote

Offer occupants on-demand control of the sound masking and paging settings in private offices and meeting rooms, or anywhere else there's a need for individual control. Prior to use, define what area each keypad controls, the functions it offers and the degree to which occupants can change settings.

### **User Instructions**

To activate the keypad, press any key. If the desired function isn't highlighted, press the Select key to choose either Masking or Paging. The screen displays the current setting for that function. To increase or decrease the volume, press the + or - key. To mute the function, press the Mute key. The screen displays two dashes. To un-mute, press the Mute key again. To change the paging channel, press the Select key until the screen displays a C and then press the + or - key.





# PK + PKR

| Control Performance   | Masking and paging volume control, masking and paging mute, paging channel selection, remote control receiver enable/disable                     |  |  |
|---|--|--|--|
| Masking Performance Volume Adjustment Range Volume Restriction Function Restriction                         | 99 step range in 0.5 dBA steps + mute Administrator defines minimum and maximum Administrator enables or disables functions                      |  |  |
| Paging Performance Volume Adjustment Range Volume Restriction Function Restriction Paging Channel Selection | 99 step range in 0.5 dBA steps + mute Administrator defines minimum and maximum Administrator enables or disables functions Zone 1, 2, 3 or none |  |  |
| Connections<br>Network In/Out   | 6-pin  |  |  |
| Power<br>Input<br>Consumption   | 30 VDC<br>Maximum 6 W  |  |  |
| <b>Zoning</b> Method  Zone Size   | Electronically zoned using Network Control Panel<br>or Acoustic Network Manager Software<br>No limit   |  |  |
| Physical Specifications Dimensions (W x H x D) Color Weight Display Keypad                                  | 4 x 10.4 x 4.6 cm; 1.58 x 4.1 x 1.825 inches<br>White<br>120 g; 4.2 oz<br>2-digit LED<br>4-key membrane panel                                    |  |  |
| Remote Control<br>Remote Receiver<br>Function Restriction   | Infrared remote control receiver for use with PKR-1<br>Administrator enables or disables function  |  |  |
| Mounting Single-gang wall box with white, Decora-style fac  |  |  |  |
| Security Function Restrictions  | See restrictions noted above   |  |  |
| Warranty  | 5 years: see LogiSon® Product Warranty for details   |  |  |
| Certifications  | Meets UL, CE, ACMA (C-Tick) and FCC standards;<br>RoHS compliant   |  |  |

# **Room Manager**Offer on-demand cor

Offer on-demand control of the sound masking and paging volume in individual rooms, from a PC. Prior to use, define the rooms, as well as the type and degree of control within each one. Users can be given control over their own room (e.g. private office) or multiple rooms (e.g. patient rooms from a nursing station). For details, see the help file or user guide.







## RM

| Operating Systems     | Windows 11  |
|-----------------------|---|
|                       | Windows 10  |
| Architectures         | X86   |
|                       | X64   |
| Hardware Requirements | Computer with 1 GHz or faster processor with 1 GB RAM or more                         |
|                       | Graphics parts supporting WDDM drivers<br>(Windows Display Driver Model) recommended  |
|                       | Minimum disk space (Microsoft components/Installation):<br>X86 - 4.5 GB; X64 - 4.5 GB |
|                       | Disk space (LogiSon components): 6 MB   |
| Prerequisites         | Microsoft .NET Framework 4.5.2 or later (incl. with Windows 10 or later)              |





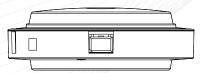
mart engineering makes the LogiSon Acoustic Network the right solution for any project. Its networked architecture is easily scaled to accommodate facilities of all sizes, from a single office to a multi-building campus. It can be expanded or relocated, as needed.

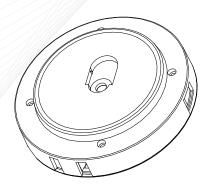
# **Primary Hubs**

Connect the Primary Network Hubs (PNH) to the Network Control Panel, allowing central communication with individual loudspeakers. Each hub features Digital Signal Processing (DSP), truly random masking sound generation, a ½-octave masking equalizer, a namplifier, independent volume controls for masking and paging, and multiplexed paging selection, eliminating the need for centrally-located audio equipment. It also monitors power and loudspeaker function.

# **Power & Accessory Hub**

Connect power to the LogiSon Acoustic Network with a Primary Power Hub (PNH-P) or attach a Programmable Keypad using the Primary Accessory Hub (PNH-A).







| Masking Performance   |   |  |  |
|---|---|--|--|
| Sound Generation  | Digital Signal Processor (DSP), truly random (nondeterministic) |  |  |
| Volume  | 35 to 85 dBA @ 1 m in 0.5 dBA steps + mute                      |  |  |
| Equalization (w/ PC)  | 1/3-octave, 23 bands, 63 to 10,000 Hz                           |  |  |
| Paging Performance  |   |  |  |
| Zone Configuration  | Zone 1, 2, 3 or none  |  |  |
| Volume  | 35 to 85 dBA @ 1 m in 0.5 dBA steps + mute                      |  |  |
| Equalization (w/ PC)  | 1/1-octave, 8 bands   |  |  |
| Timer Performance Zoning and events set using Network Control Pane Acoustic Network Manager Software                |   |  |  |
| Components per Hub  |   |  |  |
| Number of SNH-1   | 0 to 2  |  |  |
| Number of Loudspeakers  | 1 to 3  |  |  |
| Connections   |   |  |  |
| Network Input   | 6-pin   |  |  |
| Network Output 6-pin  |   |  |  |
| SNH Output  | 2-pin x 2   |  |  |
| Loudspeaker Output 2-pin 2  |   |  |  |
| Power Input *   | 2-pin   |  |  |
| Accessory Input **  | · ·   |  |  |
| Cabling   |   |  |  |
| PNH to PNH  | CA6 series cable  |  |  |
| PNH to SNH  | CA2 series cable  |  |  |
| Power   |   |  |  |
| Input   | 30 VDC  |  |  |
| Consumption   | 3.6 W at typical settings; 6.4 W at maximum settings            |  |  |
| Integrated Amplifier  | 5 W   |  |  |
| Physical Specifications   |   |  |  |
| Dimensions (W x H)  | 13.0 x 4.5 cm; 5.1 x 1.75 inches                                |  |  |
| Enclosure   | Plenum-rated resin  |  |  |
| Color   | White or charcoal grey  |  |  |
| Weight  | 0.2 kg; 0.4 lb  |  |  |
| Mounting  | Flexible mounting options; see LogiSon® Installation Manua      |  |  |
| Security  |   |  |  |
| Physical  | No physical controls  |  |  |
| Electronic  | Monitoring of communication, power and loudspeakers             |  |  |
| Warranty  | 5 years; see LogiSon® Product Warranty for details              |  |  |
| Certifications  Meets UL, CE, ACMA (C-Tick) and FCC standards an approved for use in air-handling plenums; RoHS cor |   |  |  |
|   |   |  |  |

<sup>\*</sup> PNH-P only \*\* PNH-A only

# **Secondary Hub**

If desired, increase masking zone size from one loudspeaker to a maximum of three (i.e. from 225 to 675 ft²) by connecting up to two Secondary Network Hubs (SNH) to a Primary Hub within open plans. Each Secondary Hub replicates the settings of the Primary Hub to which it's connected. Keeping zones no larger than three loudspeakers allows the technician to precisely tune the masking sound, ensuring effective and comfortable coverage throughout treated areas.



For open ceilings, clients have the option of requesting a slim braided cable to suspend a loudspeaker from each hub, rather than the standard silver chain.



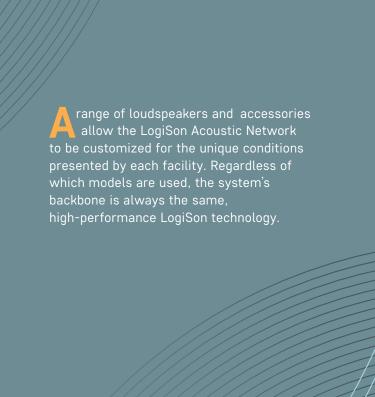
## **SNH**

SPECIFICATIONS

| Output Performance                                  | Masking, paging and timer inherited from Primary Hub   |  |
|---|--|--|
| Components per Hub                                  | 1 loudspeaker  |  |
| Connections   |  |  |
| Signal Input/Output                                 | 2-pin x 2  |  |
| Loudspeaker Output                                  | 2-pin  |  |
| Cabling   |  |  |
| PNH to SNH  | CA2 series cable   |  |
| SNH to SNH  | CA2 series cable   |  |
| Power   | 0 W  |  |
| Physical Specifications                             |  |  |
| Dimensions (W x H) 13.0 x 4.5 cm; 5.1 x 1.75 inches |  |  |
| Enclosure   | Plenum-rated resin   |  |
| Color   | White or charcoal grey   |  |
| Weight  | 0.2 kg; 0.4 lb   |  |
| Mounting  | Flexible mounting options; see LogiSon® Installation Manua   |  |
| Security  | No physical controls   |  |
| Warranty  | 5 years; see LogiSon® Product Warranty for details   |  |
| Certifications                                      | Meets UL, CE, ACMA (C-Tick) and FCC standards and is approved for use in air-handling plenums; RoHS compliar |  |
|   |  |  |







# Loudspeaker

Connect a loudspeaker to each hub in order to distribute masking, paging and music. This model is very flexible and used throughout most LogiSon installations. The custom clip allows the length of chain to be adjusted without tools. Slack cable retracts into the enclosure, to maintain a tidy appearance. The full-range driver provides output exceeding the typical masking spectrum of 100 to 5,000 Hz, including the lower frequencies needed for comfort.



Install loudspeakers upward-facing, either above the ceiling treatment or within an open ceiling. The indirect transmission of the masking sound results in broad, uniform coverage. Downward-facing, wall-mounted and under-floor models are appropriate when installation conditions necessitate their use.



## LA

SPECIFICATIONS

| Technical specifications are subject                        | to change without notice   |  |
|---|--|--|
| Certifications  | Meets UL, CE and FCC standards and is approved for use in air-handling plenums; RoHS compliant |  |
| Warranty 5 years; see LogiSon® Product Warranty for details |  |  |
| Loudspeaker Orientation Cable Management                    | Upwards; tool-free reversibility to downwards if necessary<br>Slack retracts into enclosure    |  |
| Chain Adjustment  | Tool-free clip   |  |
| Chain Length  | 61 cm; 24 inches   |  |
| Mounting<br>Method  | Suspend from hub or from deck  |  |
| Weight 0.95 kg; 1.9 lbs                                     |  |  |
| Color White or charcoal grey                                |  |  |
| Enclosure Plenum-rated resin                                |  |  |
| <b>Physical Specifications</b> Dimensions (W x H)           | 16.5 x 9.0 cm; 6.5 x 3.5 inches  |  |
| Cabling<br>Loudspeaker to Hub                               | Integrated cable assembly  |  |
| Loudspeaker Input   | 2-pin  |  |
| Connections   | 10 011119  |  |
| Magnet Structure Impedance                                  | 510 g; 18 oz<br>16 ohms  |  |
| Sensitivity   | 88.6 dBA @ 1 W/1 m   |  |
| Power Handling  | 25 W (RMS)   |  |
| Dimension   | 10.1 cm; 4 inches  |  |
| Driver Specifications Frequency Range                       | 90 to 10,500 Hz  |  |
| Paging Output   | 87 dBA maximum   |  |
| Masking Output  | 87 dBA maximum   |  |
| Audio Performance   |  |  |

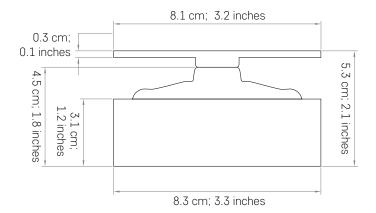
### Transducer

Invisibly deliver masking, paging and music via a solid surface such as gypsum, eliminating the need to cut in loudspeakers.

Also use this model to transfer masking sound to most types of walls, windows, doors, and other solid surfaces, in order to impede audio surveillance and eavesdropping.

When combined with proprietary TARGET tuning, this purpose-built transducer consistently delivers the correct masking spectrum and levels, overcoming the challenges typically encountered when attempting to manually adapt output to counter the influence of the material to which the transducer is attached.





### Т

**Driver Specifications** 

Frequency Range 100 to 10,000 Hz (+/-2 dB)\* Sensitivity 68.3 dBA\*\*

15 W (RMS) Power Handling Impedance (nominal) 16 ohms DC Resistance 12 ohms

Magnet Barium ferrite (72 x 32 x 15 mm) Voice Coil

25 mm, 2 layer, round Cu 0.11 mm, aluminum former

Load Test IEC268-5-C (15 W)

**Endurance Test** Dry Heat: 70 °C ± 2 °C; 20 ~ 50% R.H. for 16 Hrs. Damp Heat: 40 °C ± 2 °C; 90 ~ 95% R.H. for 16 Hrs.

Cold: -10 °C ± 2 °C; for 2 Hrs.

Connections

Input Terminal plugs to 2-pin Molex connector

Cabling

Transducer to Hub CA2 series cable

**Physical Specifications** 

Dimensions (W x H) 8.3 x 5.3 cm; 3.25 x 2.12 inches

Plenum-rated resin Housing

Color

Weight 0.57 kg; 1.3 lbs

Mounting Double-sided tape (3M 300LSE), screw, bracket Warranty 5 years; see LogiSon® Product Warranty for details

Certifications Meets UL, CE and is approved for use in air-handling plenums; RoHS compliant

Technical specifications are subject to change without notice

# SPECIFICATIONS

<sup>\*</sup> Typical gypsum ceiling application, equalization to NRC Optimum Spectrum

<sup>\*\*</sup> Typical gypsum ceiling application, 1W (3.55V)/1m, white noise signal (Clio)

# **Transducer Frequency Response Performance Testing**

# NRC Optimum Masking Spectrum, LogiSon TARGET Equalization

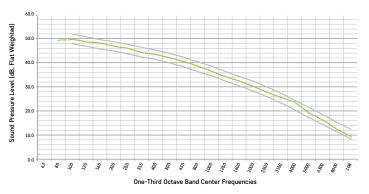
Typical T-1 masking spectrum frequency response on gypsum. Tested at 1 m. Output (green) is well within typical specified tolerances of +/-2.0 dB in each one-third octave band (grey) from 100 Hz to 10,000 Hz for an overall level of 48 dBA. Averaged from three samples, each of which was within the above tolerances. Output extends below the National Research Council (NRC) Optimum Masking Spectrum range, to 80 Hz.

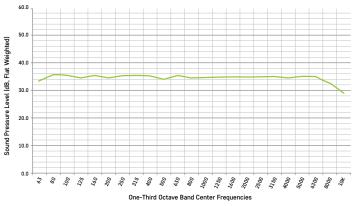
### Flat, LogiSon TARGET Equalization

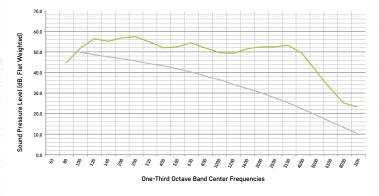
Typical T-1 frequency response on gypsum. Tested at 1 m. Output (green) is from 63 to 10,000 Hz (-6 dB). Overall level is 46.7 dBA. Drop off above 6,300 Hz reflects pre-shaping filters in the masking signal.

### 90% Maximum Output Settings

Typical T-1 frequency response on gypsum at approximately 90% maximum output settings. Tested at 1.2 m (4 feet) above the floor. Overall level is 62.9 dBA. Output shown relative to NRC Optimum Masking Spectrum (grey) at 48 dBA (typical maximum level during tuning). Output exceeds the 48 dBA spectrum from 100 to 10,000 Hz. Drop off above 4,000 Hz reflects pre-shaping filers in the masking signal.







# **Testing Details**

Three random production samples were tested individually. Using 3M 300LSE adhesive tape, each was affixed to the center of a 4x8-foot, 0.5-inch gypsum ceiling, with metal bracing positioned at 24 inches on center and suspended 10 feet above the floor. The test environment was a large open space (over 5,000 ft²) with concrete walls and flooring, and 14 feet of space above the gypsum ceiling. Measurement

distance was as noted above, using a time-averaged period of 15 seconds. Overall levels were A-weighted. One-third octave band levels were flat-weighted. Equipment used included an Ivie Class 1 IE45 Analyzer, BSWA Class 1 CAIII Pistonic Calibrator, Audiomatica Clio 12 QC Electroacoustical Measurement System with Clio Class 1 Mic 2, LogiSon Primary Network Hub (PNH-3), and LogiSon

TARGET software. Note that a transducer's frequency response is driven by the material to which it is attached, the manner of attachment and the environment. There are no standardized methods for testing performance. These tests demonstrate that the Transducer (T-1) implemented using TARGET tuning conforms to typical masking specifications in gypsum ceiling applications.

# Chicago Loudspeaker

Use in regions where building code requires conduit despite the fact that the Loudspeaker (LA) meets *UL 2043* Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces.

The loudspeaker and the junction box housing the hub are designed to meet Chicago's stringent requirements. The enclosure and junction box are made of steel. Cabling is contained within Flexible Metal Tubing listed for use in plenums and other air-handling spaces. Where it enters the enclosure, this specialized conduit terminates in a one-piece zinc connector fitted with a rubberized polymer gasket, forming the smoke-tight seal required by the NEC. The junction box is also sealed. A flame-retardant fabric located below the speaker grille prevents dust accumulation.



For mounting in hard ceilings, fit the Chicago Loudspeaker with a white metal plate (LA-CHCP).



87 dBA maximum

### LA-CH

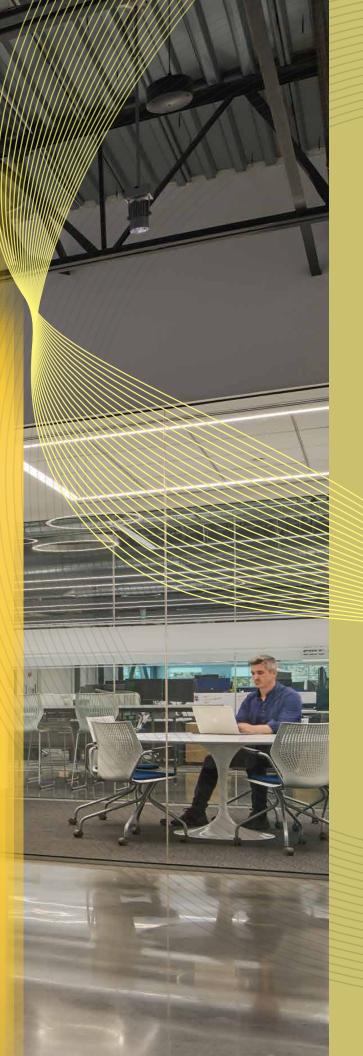
SPECIFICATION

Audio Performance

Masking Output

| Paging Output           | 87 dBA maximum                       |                        |
|-------------------------|--------------------------------------|------------------------|
| Driver Specifications   |                                      |                        |
| Frequency Range         | 90 to 10,500 Hz                      |                        |
| Dimension               | 10.1 cm; 4 inches                    |                        |
| Power Handling          | 25 W (RMS)                           |                        |
| Sensitivity             | 88.6 dBA @ 1 W/1 m                   |                        |
| Magnet Structure        | 510 g; 18 oz                         |                        |
| Impedance               | 16 ohms                              |                        |
| Connections             |                                      |                        |
| Loudspeaker Input       | 2-pin                                |                        |
| Cabling                 |                                      |                        |
| Loudspeaker to Hub      | Integrated cable assembly in FMT     |                        |
| Physical Specifications |                                      |                        |
| Dimensions (W x H)      | 15.2 x 15.8 cm; 6 x 6.2 inches       |                        |
| Enclosure               | Electroplated steel housing, 26 gau  | ige                    |
| Weight                  | 1.52 kg; 3.36 lbs including FMT and  | l chain                |
| Mounting                |                                      |                        |
| Method                  | Suspend from hub                     |                        |
| Chain Length            | 45.7 cm; 18 inches                   |                        |
| Loudspeaker Orientation | Upwards facing                       |                        |
| Junction Box for Hub    |                                      |                        |
| Dimensions (W x H)      | 20.3 x 6.6 cm; 8 x 2.6 inches        |                        |
| Material                | Electroplated steel housing, 26 gau  | ige                    |
| Gasket                  | Neoprene/EPDM/SBR                    |                        |
| Knockouts               | 5 knockouts; 0.086 inches for 3/4-in | ch conduit;            |
|                         | 1.125 inches for 1-inch conduit      |                        |
| Weight                  |                                      |                        |
| Warranty                |                                      |                        |
| Certifications          | Meets UL, CE and FCC standards a     | nd is approved for use |
|                         | in air-handling plenums; RoHS com    | pliant                 |



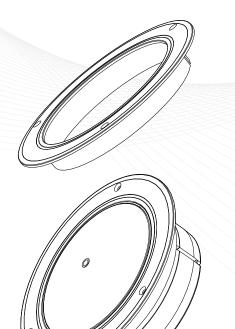


A ccessorize loudspeakers according to site and ceiling conditions, allowing in-ceiling and wall mounting, as well as installation within a low plenum, as needed.

# **Ceiling Mount Adapter**

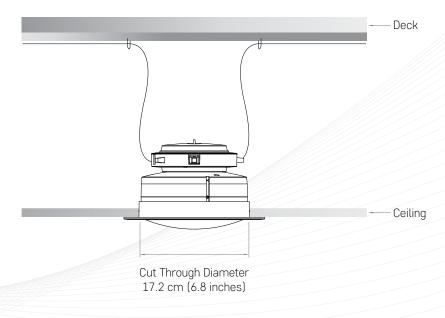
Install the Loudspeaker (LA) in gypsum or another hard ceiling material. Simply attach the hub to the loudspeaker and lower it into this adapter, mounted to the ceiling. A steel back plate offers support. Alternatively, use a Transducer; for more details, see the applicable section of this catalogue.





SPECIFICATIONS





# **CMA**

| <b>Physical Specifications</b> |  |
|--------------------------------|--|
| Facantata Diamentar            |  |

Faceplate Diameter 22 cm; 8.7 inches
Depth 2.8 cm; 1.1 inches
Material Resin
Color White
Weight 0.1 kg; 0.2 lb

### Mounting

Attachment to Loudspeaker
Cut-Through Diameter
Suspension to Ceiling
Bolt Size for Suspension
Backup Suspension

Lay-in (with option for screw attachment)
17.2 cm; 6.8 inches
3-point suspension
8-32 x 2.5 inches
Additional suspension option from d-ring on hub

Warranty 5 years; see LogiSon® Product Warranty for details



# Low-Profile Adapter

Install the Loudspeaker (LA) in low-height plenums. First, use the supplied washer and bolt to attach this adapter to the threaded mount in the center of the loudspeaker grille. Then, use two fasteners and washers (not included) to attach the adapter to the ceiling deck (see diagram).

While it is typically impossible to attain the correct masking spectrum and level when a loudspeaker is installed within such a confined space, LogiSon TARGET tuning delivers the specified results quickly and precisely.

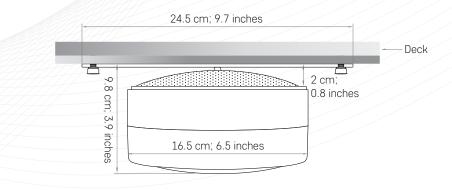


A top view showing the adapter attached to the threaded mount in the loudspeaker grille.

# SPECIFICATIONS







### **LPA**

| Physical Specifications   |  |  |  |  |
|---------------------------|--|--|--|--|
| Dimensions (W x H)        | See above diagrams                                 |  |  |  |
| Color                     | Black  |  |  |  |
| Material                  | Powder-coated aluminum                             |  |  |  |
| Weight                    | 27 g; 1 ounce, with hardware                       |  |  |  |
| Mounting                  |  |  |  |  |
| Attachment to Loudspeaker | Rectangular washer and 8-32 bolt (included)        |  |  |  |
| Suspension to Deck        | 2 x washer and fastener (not included)             |  |  |  |
| Warranty                  | 5 years; see LogiSon® Product Warranty for details |  |  |  |

# **Wall Mount Adapter**

Mount the Loudspeaker (LA) to a structure, such as a wall. Simply unscrew the insert from the top of the loudspeaker and replace it with the clip removed from the bottom. Place the adapter's support plate on the back of the loudspeaker. Insert the threaded end of the swivel bracket into the support plate and loudspeaker, and turn to tighten. Install in the desired location and adjust the angle, as needed.



A side view showing the swivel bracket that allows the loudspeaker to be positioned in the desired direction.



### **WMA**

Mounting

Number of Screws 3

Maximum Diameter 0.164 inches (#8) with flat head

**Physical Specifications** 

Dimensions See above diagram

Color Whi

Material Powder-coated aluminum & stainless steel

Weight 0.22 kg; 0.49 lbs

Technical specifications are subject to change without notice.

# SPECIFICATIONS





single line of low-voltage, plenum-rated cable carries power, control and audio signals across the LogiSon Acoustic Network, ensuring efficient installation and a clean appearance. Zoning is digital, not hardwired, allowing changes to be made in minutes.

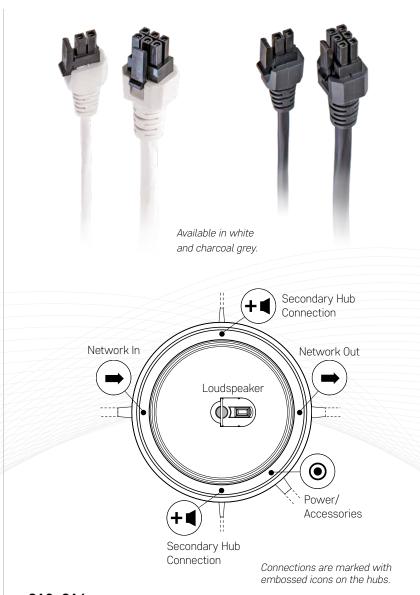
## Cable Assemblies

Connect the Network Control Panel, Primary Hubs and Programmable Keypads using 6-conductor Cable Assemblies, available in 5, 18, 25, 50 and 100-foot lengths (1.5, 5.5, 7.6, 15.2 and 30.4 meters). Connect Secondary Hubs to Primary Hubs using 2-conductor Cable Assemblies, available in 5, 18, 25 and 50-foot lengths (1.5, 5.5, 7.6 and 15.2 meters). To create longer lengths, connect two assemblies with a Cable Coupler.

Cable lengths are indicated by colored labels, as shown below.

- 5 ft
- 18 ft
- 25 ft
- **5**0 ft
- 100 ft (CA6 only)





# CA2, CA6

| Physical Specifications          |  |  |
|----------------------------------|--|--|
| Lengths                          | CA2-5<br>CA2-18<br>CA2-25<br>CA2-50  | 5.5 m; 18 ft   |
|                                  | CA6-18<br>CA6-25   | 1.5 m; 5 ft<br>5.5 m; 18 ft<br>7.6 m; 25 ft<br>15.2 m; 50 ft<br>30.4 m; 100 ft |
| Connectors  Gauge Material Color | 2- and 6-pin over-molded micro-connectors featuring<br>orientation guides and positive-lock mechanism<br>20 AWG<br>Copper stranded<br>White or charcoal grey |  |
| Warranty                         | 5 years; see LogiSon® Product Warranty for details   |  |
| Certifications                   | Meets UL, CE and FCC standards and is approved for use in air-handling plenums; RoHS compliant   |  |
|                                  |  |  |

# **Cable Couplers**

Use Cable Couplers to connect two Cable Assemblies together when a longer length is required. Available in both 2- (CC2) and 6-conductor (CC6) sizes.

Micro-connectors simply snap together, enabling quick, accurate and tidy installation, while positive-locking mechanisms prevent accidental disconnection.



SPECIFICATIONS



Available in white and charcoal grey.



# CC2, CC6

| Certifications                 | Meets UL requirements; RoHS compliant               |  |  |
|--------------------------------|---|--|--|
| Warranty                       | 5 years; see LogiSon® Product Warranty for details  |  |  |
| Color                          | White or charcoal grey                              |  |  |
|                                | lock to mating part                                 |  |  |
| Connectors                     | 2- and 6-pin over-molded micro-connectors featuring |  |  |
|                                | CC6   | $4.68 \times 1.4 \times 1.46$ cm; $1.8 \times 0.55 \times 0.57$ inches<br>For use with CA-6 Cable Assemblies |  |
| Sizes                          | CC2   | 4 x 1.4 x 0.9 cm; 1.57 x 0.55 x 0.35 inches<br>For use with CA-2 Cable Assemblies                            |  |
| <b>Physical Specifications</b> |   |  |  |

# Field Connection Whips

Create custom-length cable assemblies onsite to facilitate cabling inside conduit or along longer, non-linear paths, as well as to eliminate excess cable in visible installations. Use together with LogiSon Cables or another code-compliant cable that meets LogiSon requirements.





# FC2, FC6

| Physical Specifi | ications |
|------------------|----------|
|------------------|----------|

Length 21.5 cm; 8.5 inches Shrink Tubing 10 cm; 4.0 inches

Connectors 2- and 6-pin over-molded micro-connectors featuring

orientation guides and positive-lock mechanisms for connection to LogiSon device; 2 and 6 20-24 AWG crimp

connectors for connection to cable

Gauge 20 AWG Material Copper stranded

Color White

Warranty 5 years; see LogiSon® Product Warranty for details

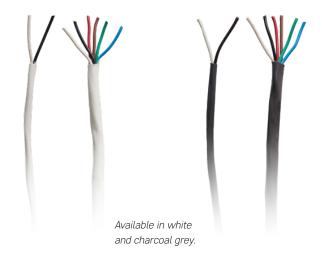
**Certifications** Meets UL and CE standards and is approved for use in air-handling plenums; RoHs compliant

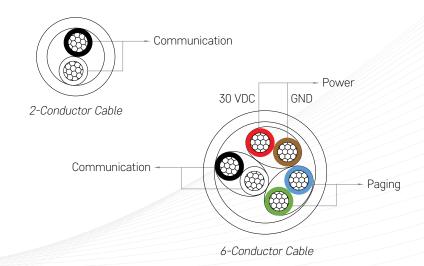
# SPECIFICATIONS

## **Cables**

Use together with Field Connection Whips (FC2, FC6) to create customlength cable assemblies on site. Can also be used for shorter power runs, but 16 AWG is recommended.

The LOGISON® mark is printed on the jacket for easy identification on site. However, other code compliant cables can be used, providing they meet the LogiSon requirements.





# C2, C6

| 20 AWG  |  |  |
|---|--|--|
| Copper stranded   |  |  |
| White or charcoal grey  |  |  |
| 5 years; see LogiSon® Product Warranty for details  |  |  |
| Meets C(UL)US Listed Type CMP, CSA FT6, UL Listed<br>Type CL3P and is approved for use in air-handling<br>plenums; RoHS compliant |  |  |
|   |  |  |





# **Power Supply**

Power the LogiSon Acoustic Network with this UL Energy Efficiency Certified AC/DC switching mode supply.





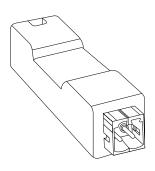
# PS

| Electrical Performance Input Voltage | Min 90 VAC: Max 264 VAC  |  |  |
|--------------------------------------|--|--|--|
| Input Frequency                      | Min 47 Hz; Max 63 Hz<br>30 VDC   |  |  |
| Output Voltage                       |  |  |  |
| Output Power Range                   | Min 0 W; Max 80 W  |  |  |
| Efficiency                           | Min 75%; Max 88%   |  |  |
| Connections                          |  |  |  |
| Input                                | IEC-320-C14 for worldwide applications   |  |  |
| Output                               | Stripped and tinned wires  |  |  |
| Physical Specifications              |  |  |  |
| Dimensions (W x H x D)               | 7.9 x 16.8 x 4.64 cm; 3.1 x 6.63 x 1.83 inches   |  |  |
| Color                                | Black  |  |  |
| Weight                               | 0.680 kg; 1.5 lbs  |  |  |
| Control                              | On/off switch  |  |  |
| Mounting                             | Wall mount bracket; height with bracket is 20.1 cm; 7.9 inches   |  |  |
| Warranty                             | 5 years; see LogiSon® Product Warranty for details   |  |  |
| Certifications                       | Meets UL, C-UL, TUV, CE, ACMA (C-Tick) and FCC standards, RoHS compliant; UL Energy Efficiency Certified |  |  |
|                                      |  |  |  |

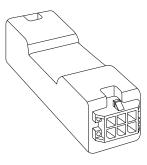
# **Power Coupler**

If the system does not require a permanent Network Control Panel, use the Power Coupler (PC) to connect the Power Supply output to the cable running to the first Primary Hub.





Connect this end to the Power Supply.



Connect this end to the CA6 Cable Assembly running to the first Primary Hub.

### PC2

| Physical Specifications Dimensions (W x H x D) Connectors Color | 4.68 x 1.4 x 1.46 cm; 1.8 x 0.55 x 0.57 inches<br>Overmolded 2-pin power connector and 6-pin<br>micro-connector featuring lock to matching part<br>White |
|---|--|
| Warranty  | 5 years; see LogiSon® Product Warranty for details   |
| Certifications  | Meets UL requirements; RoHS compliant  |
|   |  |





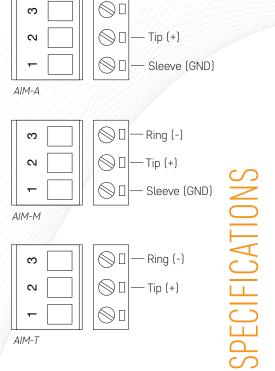


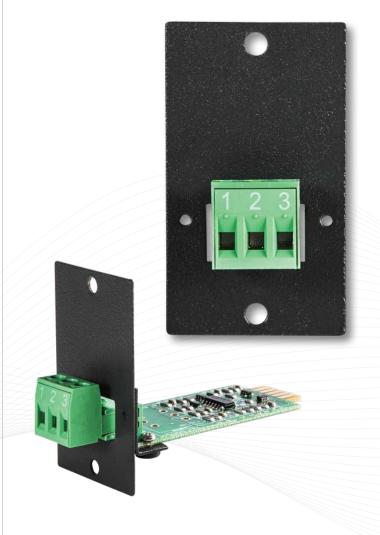
aging and music play over the same loudspeakers as the masking sound, but zoning and settings are independent, so you don't have to compromise. Amplification and equalization technology are integrated into the hubs, reducing the cost, energy and space typically needed for audio equipment. And because zoning is digital, you can page whenever and wherever required.

# **Audio Input Modules**

Connect paging and music sources to the LogiSon Acoustic Network. Each Network Control Panel accepts any combination of three inputs: Auxiliary, Microphone and Telephone. All modules offer analog to digital conversion and automatically adjust for input sensitivity.

Use the Priority Page Override for voice clarification in 'All Call' situations. It sets the paging volume to a pre-programmed level and plays the announcement over the entire system, simultaneously muting the masking, if desired. Once the page is complete, the LogiSon Acoustic Network returns to its original settings.





### AIM-A, AIM-M, AIM-T

Auxiliary

| Certifications  | Meets UL, CE, ACMA (C-Tick) and FCC standards;   |
|---|--|
| Warranty  | 5 years; see LogiSon® Product Warranty for details   |
| Telephone Input Impedance Input Level Input Sensitivity Gain Frequency Response   | 600 ohm<br>10 V maximum<br>300 mV for maximum output<br>Maximum 20 dB, adjustable in thirty-two 1 dB steps<br>20 to 10,000 Hz  |
| Microphone Input Impedance Input Level Input Sensitivity Gain Frequency Response  | 600 ohm<br>30 mV maximum<br>1 mV for maximum output<br>Maximum 70 dB, adjustable in thirty-two 1 dB steps<br>20 to 10,000 Hz   |
| Input Impedance<br>Input Level<br>Input Sensitivity<br>Gain<br>Frequency Response | 100 kohm<br>10 V maximum<br>300 mV for maximum output<br>Maximum 20 dB, adjustable in thirty-two 1 dB steps<br>20 to 10,000 Hz |

RoHS compliant

## **Page Director**

Create, alter or delete an unlimited number of page zones, on demand. Paging is possible at a single loudspeaker or over any given range of loudspeakers, offering virtually unlimited control over any number of floors or buildings.

Simply select the desired loudspeakers, name the zone and enter a description for future reference—for example, 'Floor 1, Meeting Room.' Select one of three Audio Input Modules to use for each page, such as a microphone. If only one device is available, the software selects it by default. Manually end the page or set it to finish automatically, after which the system returns to its default settings. Sort paging zones into user-defined categories and subcategories for easy accessibility. For more details, see the help file or user guide.





### PD

SPECIFICATIONS

| Operating Systems     | Windows 11  |
|-----------------------|---|
|                       | Windows 10  |
| Architectures         | X86   |
|                       | X64   |
| Hardware Requirements | Computer with 1 GHz or faster processor with 1 GB RAM or more                         |
|                       | Graphics parts supporting WDDM drivers<br>(Windows Display Driver Model) recommended  |
|                       | Minimum disk space (Microsoft components/Installation):<br>X86 - 4.5 GB; X64 - 4.5 GB |
|                       | Disk space (LogiSon components): 5 MB   |
| Prerequisites         | Microsoft .NET Framework 4.5.2 or later (incl. with Windows 10 or later)              |







## **Relay Output Module**

Connect the Network Control Panel to up to two external devices, such as warning lights, sirens and/or a security system. If the panel detects an issue with a loudspeaker, communication, power or another input, the module activates the external device, alerting users.



### **ROM**

| Relay Output<br>Rated Load | 0.5 A at 125 VAC; 1 A at 24 VDC                                  |
|----------------------------|--|
| Warranty                   | 5 years; see LogiSon® Product Warranty for details               |
| Certifications             | Meets UL, CE, ACMA (C-Tick) and FCC standards;<br>RoHS compliant |

Technical specifications are subject to change without notice.

# SPECIFICATIONS

# Acoustic Network Supervisor

Monitor the LogiSon Acoustic Network using this software, which sends an email if it detects an issue. Because it runs as a Windows Service, a hardware failure won't impact its ability to send an alert.

Prior to use, define the intervals at which the system is checked, as well as to whom notification should be sent—for example, the facility manager and/or IT personnel. Add vendor information to tell the recipient who to contact and, if monitoring multiple facilities or floors for various tenants, a unique subject to identify the location. For more details, see the help file or user guide.







#### **ANS**

| Operating Systems     | Windows 11   |
|-----------------------|--|
|                       | Windows 10   |
|                       | Windows Server 2012 or later   |
| Architectures         | X86<br>X64   |
| Hardware Requirements | Computer with 1 GHz or faster processor with 1 GB RAM or more                        |
|                       | Graphics parts supporting WDDM drivers<br>(Windows Display Driver Model) recommended |
|                       | Minimum disk space (Microsoft components/Installation): X86 - 4.5 GB; X64 - 4.5 GB   |
|                       | Disk space (LogiSon components): 5 MB  |
| Prerequisites         | Microsoft .NET Framework 4.5.2 or later (incl. with Windows 10 or later)             |
|                       |  |

# A HISTORY OF INDUSTRY FIRSTS...





And also continues to add new features to the LogiSon Acoustic Network, maintaining its leadership position. Here are a few highlights...



Programmable Keypad, the first customizable room occupant control for masking, paging and music.



Low-Profile Loudspeaker for shallow plenums and Chicago Loudspeaker for regions requiring installation in conduit.



Page Director, allowing users to create and change custom page

zones on demand.

The company begins by offering the SCAMP® Sound Masking System, a decentralized architecture with a single type of self-contained device offering pseudo-random sound generation, a choice of two fixed frequency curves, and basic volume control in ten 1.5 dBA steps.



The R&D team returns to the drawing board. Their goal? To leverage emerging technologies in order to provide clients with more flexibility and ease-of-use, as well as even greater speech privacy, noise control and comfort.



ACCUMASKING SCAMP'S QUIND MASKING

The company continues to

support its large SCAMP

system.

client base by releasing a

modernized version of that

Over the next 25 years, adds new features to the SCAMP System, including:

Gen II - A patented random sound generator and the first variablysized zones with Master and Satellite devices.

Gen III - The first continuously variable spectrum control, stepless volume adjustment, and centralized large-zone volume control.

Gen IV - The first decentralized timer, integrated central volume control Master devices, and low-profile loudspeakers.

Gen V - PC software control, multiple timer zones and programming options, as well as ramp-up period scheduling. Launches the world's first networked sound masking system, the LogiSon® Acoustic Network, cementing the company's status as the industry gamechanger.

The system offers an unprecedented level of control and features benefiting all stakeholders: auto-addressed networked masking devices, centralized control of individual loudspeakers via hardware and software, third-octave frequency adjustment for small zones, independent digital zoning of masking/ paging/timer functions, multiplexed digital paging/music, integrated paging amplifiers, separate masking and audio volume/frequency controls, monitoring and diagnostics for decentralized components, loudspeaker ping, priority page override, connector-based cabling and attractive components for open ceilings.

Introduces the AccuMask® Sound Masking System, a re-engineered decentralized architecture featuring digital control and IR remote adjustment, as well as integrated ramp-up function and paging mute/volume control.



Acoustic Network Supervisor, a Windows Service that monitors system operation and sends email notifications.



Unique loudspeaker detection and monitoring functions, as well as voltage level monitoring, truly random digital sound generation, and a Fail-Safe Power Solution.



Room Manager, providing on-demand control of masking and paging volume in individual rooms, from a PC.





2023



The company re-engineers the equalizer within the LogiSon hub in preparation for the release of a revolutionary new software.

Installing their technology in patient rooms highlights how it not only improves privacy, but also helps occupants sleep. That attention to slumber brings the company into the hospitality field.

The company celebrates its 45th year in business and the 20th anniversary of the launch of the LogiSon Acoustic Network.



Today, the company's products are available globally and installed in many hundreds of millions of square feet for clients ranging in size from small business to Fortune 100. They've attained over 40 patents relating to masking technology, authored more than 200 articles and CEUs, and are currently working together with such notable organizations as ASTM, ASA, CAA, GBI, FGI, and WELL to advance acoustic best practices and industry standards.





# ...AND ACCOLADES

Introduces TARGET, a unique application that third-octave tunes small zones of one to three loudspeakers to the desired curve far faster and more precisely than formerly achievable, even by expert technicians. TARGET reduces tuning time by 90 percent or more, while achieving the specified curve within ±0.5 dBA.

The following year, the company discontinues the AccuMask System, signalling to the industry that, in a post-TARGET world, the time has come for all products based on older masking architectures—centralized and decentralized—to be shelved.

Launches MODIO® Guestroom Acoustic Control, the first commercial-grade masking device specifically designed for hotels, allowing occupants to adjust the level of noise control in their room the same way they set temperature and lighting. The following year, MODIO picks up several awards: Best of BD West, HiP Award Honoree, HD Award Finalist, Buildings Product Innovations and Money Saving Products Awards.













Looks forward to ongoing research and continuous product innovation, intending to further advance sound masking technology and understanding of its role within the built environment.



Since launch, the LogiSon Acoustic Network has won over 20 awards, including:

Best of NeoCon

NSCA Innovations in Technology Award

IIDEX/NeoCon Canada
Three-Time Winner

Symposium Distinction Award

Buildings Top 100 Products

Buildings Innovation Award
Three-Time Winner

**Buildings Money Saving Product** 

Building Operating Management Top Product Award

Nightingale Award Three-Time Winner

# SET THE PERFORMANCE BAR

The importance of your sound masking specification shouldn't be underestimated.

In order to save you time and effort, while ensuring effective and comfortable sound masking, we offer two types of specs. Simply choose the one that works best for your project.

### To Sole Source

If you can sole source your sound masking system, download the *LogiSon Sound Masking 3-Part Specification*.

Selecting the LogiSon Acoustic Network provides industry-leading sound masking performance, as well as access to premium services and many unique features, including:

- Patented networked technology
- Precise automated TARGET tuning
- Multi-tiered network architecture
- Fully programmable in-room controls
- Truly random masking sound generation
- Enhanced diagnostic and supervisory features
- End-to-end monitoring, down to each speaker
- A dedicated hardware control panel
- Encrypted communication with the control panel
- Automatic geographic addressing of devices
- Streamlined appearance for open ceilings
- Enhanced timer functions
- Simplified cabling in your ceiling

If your application requires any of these exclusive features, use the *LogiSon Sound Masking 3-Part Specification*. It's worth it.

### To Allow Alternate Bids

If you can't sole source, it's still essential to set a performance bar.

While it's unusual for a manufacturer to offer a spec that opens the door to competitors, the Generic Performance-Based Sound Masking Specification provides key benefits to clients who require multiple proposals.

Project teams in this position often try to use a proprietary spec or one cobbled together from various proprietary specs. In the former case, the terms can only be met by one vendor. In the latter, they can't be met by any vendor. The spec ends up being ignored, leaving the facility's acoustics up to chance.

The generic spec will help achieve effective masking performance across your space, regardless of which product you ultimately select. This document:

- Does not contain proprietary elements
- Focuses on qualities critical to masking performance
- Uses evidence-based criteria set to commonly-achievable levels
- Allows modern networkeddecentralized systems to be bid

If you ensure that proposals adhere to this spec and hold your vendor accountable to its post-installation steps, no one can take shortcuts at your expense.

Both types of specs are available for download in CSI and CSC formats at:

soundmaskingspecs.com



