



# NQ-DSC01 Dual-Sided Hallway Combo Display

*Indoor wall- or ceiling-mounted VoIP dual-sided, multi-color LED display with integrated flasher and dual loudspeakers*

## Installation and Use Guide

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## Notice

Every effort was made to ensure that the information in this manual was complete and accurate at the time of printing; however, all information is subject to change.

This equipment is not suitable for use in locations where children are likely to be present.

Equipment is intended for use only in a restricted access area.

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

*Avertissement: pour réduire le risque d'incendie ou de choc électrique, ne pas exposer cet appareil sous la pluie et l'humidité.*

The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

*L'appareil ne doit pas être exposé aux écoulements ou aux éclaboussures et aucun objet ne contenant de liquide.*

The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc.

*- il convient que l'aération ne soit pas gênée par l'obstruction des ouvertures d'aéra.*

No naked flame sources, such as lighted candles, should be placed on the apparatus.

*- il convient de ne pas placer sur l'appareil de sources de flammes nues, telles que des bougies allumées.*

The apparatus is designed for use in moderate climates.

*- si l'appareil est destiné à être utilisé sous un climat tempéré.*

## Important Safety Information

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Always comply with the following basic safety precautions when installing and using the unit:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Clean only with dry cloth.
6. DO NOT install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
7. Only use attachments and accessories that are specified by the manufacturer.
8. Unplug this apparatus during lightning storms or when unused for long periods of time.
9. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## CAUTION

### RISK OF ELECTRIC SHOCK DO NOT OPEN

**CAUTION: TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE ANY FRONT/BACK COVERS OR PANELS. NO USER-SERVICEABLE PARTS ARE INSIDE. REFER ANY SERVICING TO QUALIFIED PERSONNEL.**



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within a unilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions.

## WARNING:



The apparatus shall be connected to a mains socket outlet with a protective earthing connection.

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.



The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

# Installation

## Connections

See the diagram below for connectivity to the NQ-DSC01 printed circuit board assembly (PCBA).

- **CAN (pins 1–4):**

This pluggable connector is used to send information to the LED message and strobe flashers.

- **LINE IN (pins 5–7):**

Line Input is used for balanced or unbalanced audio signals into the NQ-DSC01. The level controls for the NQ-DSC01 line input/output are located in the device GUI.

- **LINE OUT (pins 8–10):**

Line Output is used to send line-level audio (2V RMS nominal into 10K  $\Omega$ ) into the line-level input of a device with its own amplifier. The level controls for the NQ-DSC01 line input/output are located in the device GUI.

- **AMP OUT (pins 11–12):**

**Note:** These pins are set aside for future use and are not functional at this time.

- **RELAY (pins 13–14):**

The NQ-DSC01 includes a Form C SPDT-type dry contact relay for controlling third-party devices. Relay rating is maximum voltage of 24VDC @ 2.0 A.

To connect a third-party device to the dry contact relay output, do one of the following:

- If the device is looking for a Normally Open contact, connect the device using the NO and COM terminals.
- If the device is looking for a Normally Closed contact, connect the device using the NC and COM terminals.

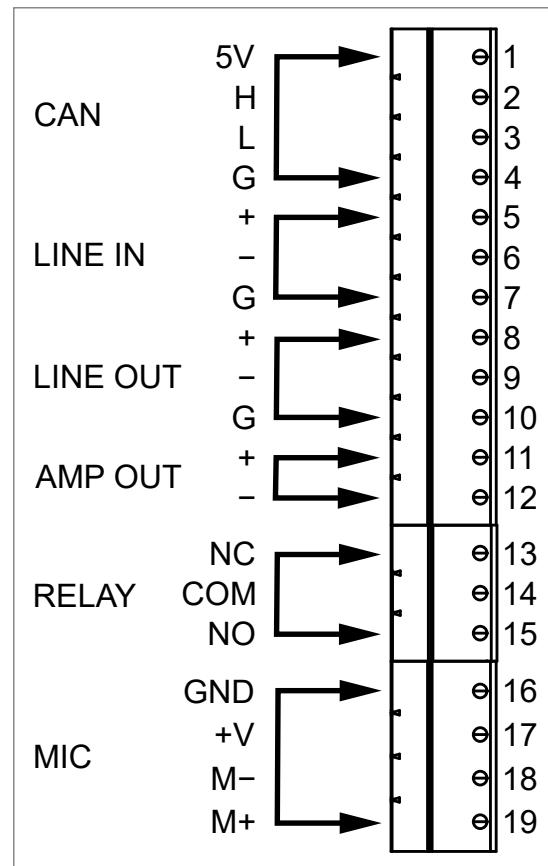
**Note:** Use of relay contacts is optional and only recommended for connection to 12V/24V circuits, not for 120/240 VAC mains circuits.

- **MIC (pins 16–19):**

The Microphone input is intended only for the internal microphone; there is no external connectivity for these inputs.

Connect any DSCS01 accessory wires or cables before connecting the Ethernet cable to the unit. These accessories include CAN BUS accessories such as the NQ-7020-G2 digital call switch and the NQ-VCTRL remote volume control, audio line input/output, or dry relay contacts.

To install the NQ-DSC01 display, connect a CAT5-or-better Ethernet cable into the Ethernet coupler attached to the short CAT6 patch cable on the NQ-DSC01 and ensure that the other end of the cable is correctly connected to your network using an 802.3at-compliant PoE+ switch or the Bogen PI5660W POE injector.



## Connectivity Patch Panel

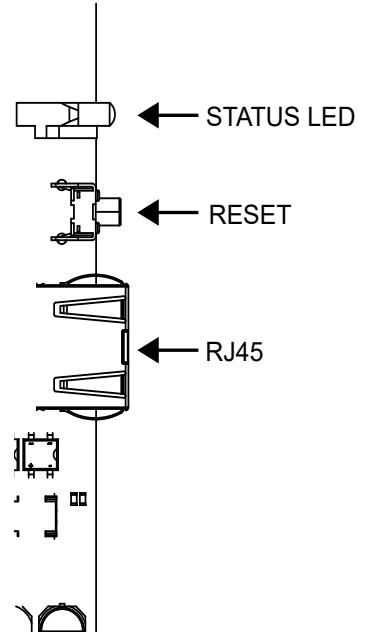
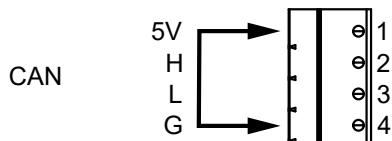
- Power / Status

There are two status LEDs on the NQ-DSC01 PCBA. The POWER LED appears as solid red during initial power up, flashes green during a boot sequence, and appears solid green when fully booted. The STATUS LED uses the following indicators to provide information about the appliance:

<i>Flashing red</i>	No network connection found.
<i>Solid blue</i>	The device is in an uninitialized state and is not associated to a server. (The server may be in a discovery mode.)
<i>Solid green</i>	The device is registered to a Nyquist server and is in normal operation.
<i>Flashing green</i>	The device has an IP address but is not registered with the Nyquist server.
<i>Solid red</i>	The device needs to be rebooted or reset so that the Nyquist application can resume.
<i>Flashing blue</i>	The device is updating.

- Reset:** The Reset button allows you to restart the module or to reset the module's configuration settings to the factory default settings. For more information about resetting configuration settings, refer to the *Nyquist NQ-DSC01 Configuration Guide*.
- RJ45:** Designed to operate over a 10/100 Ethernet network, the NQ-DSC01 is IEEE 802.3at-compliant and is powered using PoE+.
- CAN connection on Strobe PCBA (green 4-pin Phoenix plug/socket) to a call switch or other device:**

Ensure the CAN\_H and CAN\_L use twisted-pair cable or equivalent (installer preference). Once the NQ-DSC01 and NQ-E7020-G2 Call Switch CAN bus lines are connected, power on the NQ-DSC01 and it will be connected to the NQ-7020-G2 Digital Call Switch or the NQ-VCTRL digital volume control.



## Additional Accessories

The Nyquist NQ-DSC01 messaging display can be used with the Nyquist Digital Call Switch NQ-E7020-G2 and the NQ-VCTRL remote volume control.

## Placement

The placement of the NQ-DSC01 should be planned prior to installation.

Because hallway speakers are designed to project audio and messaging in two directions simultaneously, you can use the building's walls, roof pillars, or other available supports for mounting the NQ-DSC01 messaging speaker.

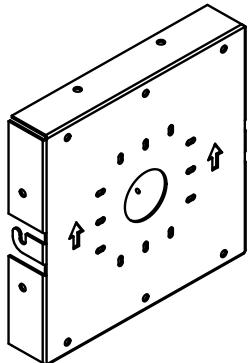
**WARNING:** The maximum operating temperature for the NQ-DSC01 is 35 °C.

## Mounting

In most cases, a hallway environment requires only a single NQ-DSC01 hallway messaging display to service the entire hallway. The final placement of the speaker within the hallway can vary, but such common area locations as the ceiling of the hallway or the wall near the ceiling of the hallway are typically chosen.

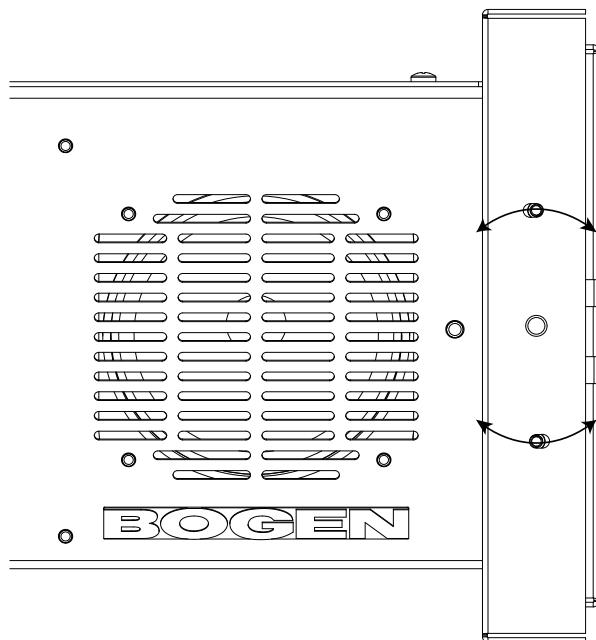
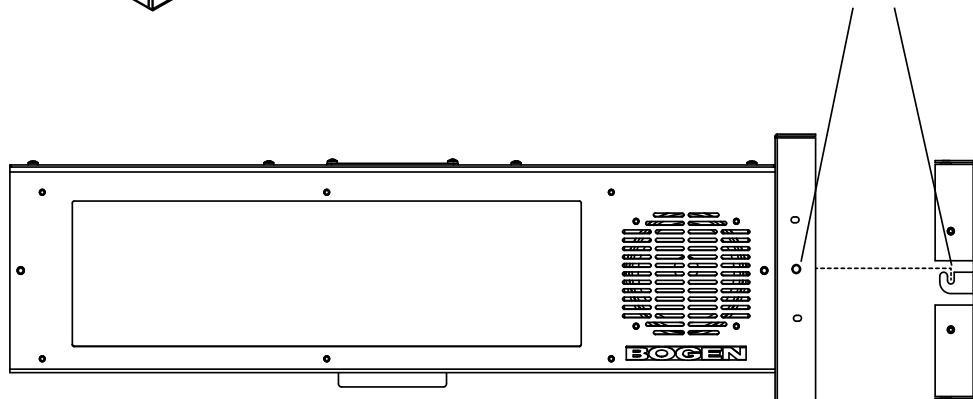
Based on the speaker position that has been selected, you can choose between two mounting options: hallway and ceiling, as described below.

### Hallway Mounting Recommendation



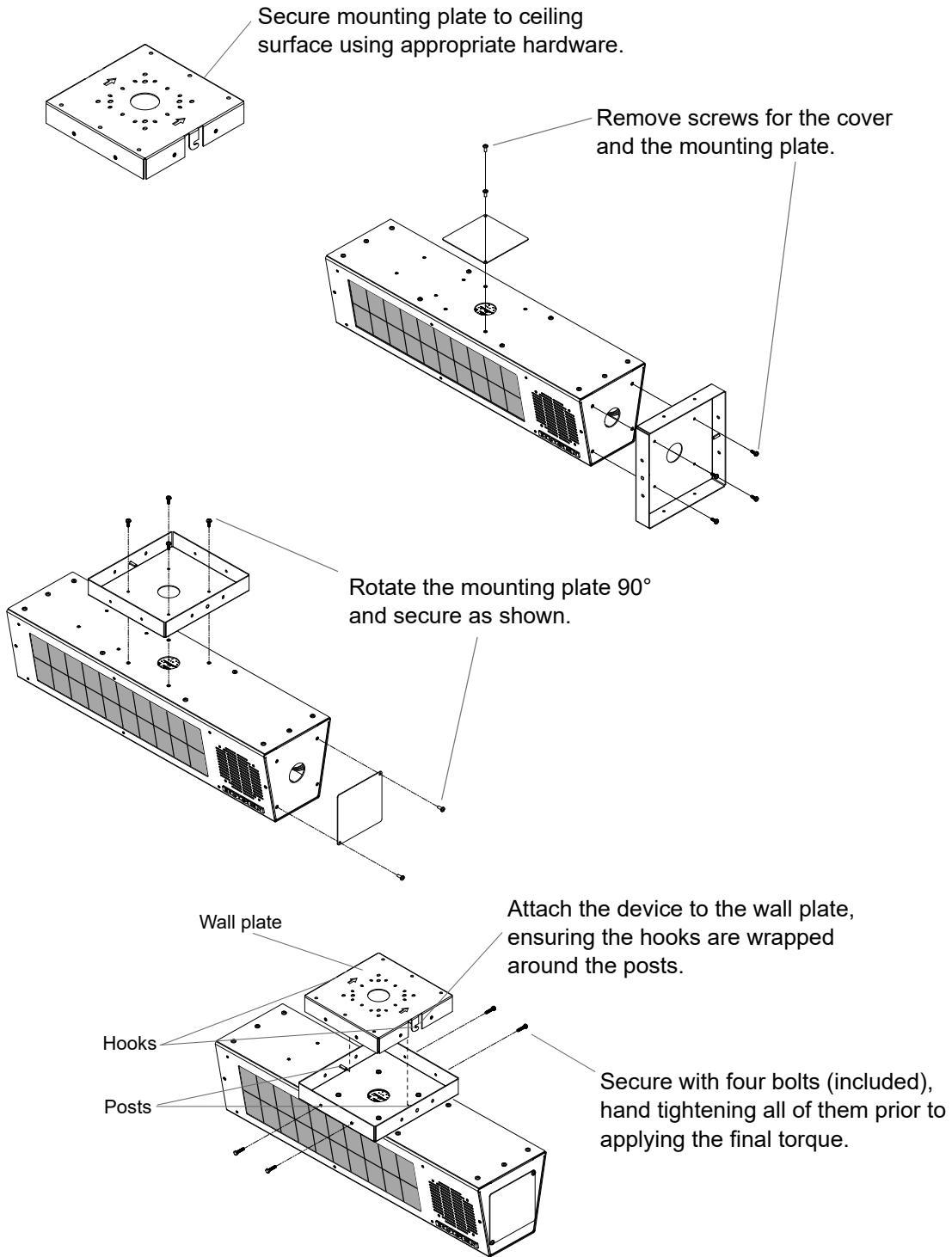
Secure wall plate to surface using appropriate hardware.

Attach the device to the wall plate by lining up the pin with the leveling hook as shown.



Level the device and secure in place using four bolts (included).

## Ceiling Mount Instructions



## Using the Reset Button

The Reset button allows you to reboot the VoIP speaker or to reset the appliance's configuration settings to the factory default settings.

## Configuration

Refer to the *Nyquist VoIP Speaker Configuration Guide* and the *Nyquist System Administrator Guide* for detailed instructions on how to configure these speakers.

## Compliance

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.

*L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:*

- L'appareil ne doit pas produire de brouillage;
- L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## **Limited Warranty, Exclusion of Certain Damages**

The NQ-DSC01 is warranted to be free from defects in materials and workmanship for five (5) years from the date of sale to the original purchaser. Any part of the product covered by this warranty that, with normal installation and use, becomes defective (as confirmed by Bogen upon inspection) during the warranty period will be repaired or replaced by Bogen, at Bogen's option, with new or refurbished product, provided the product is shipped insured and prepaid to: Bogen Factory Service Department: 4570 Shelby Air Drive, Suite 11, Memphis, TN 38118, USA. Repaired or replacement product(s) will be returned to you freight prepaid. This warranty does not extend to any of our products that have been subjected to abuse, misuse, improper storage, neglect, accident, improper installation or have been modified or repaired or altered in any manner whatsoever, or where the serial number or date code has been removed or defaced.

### **THE FOREGOING LIMITED WARRANTY IS BOGEN'S SOLE AND EXCLUSIVE WARRANTY**

AND THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY. BOGEN MAKES NO OTHER WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED AND EXCLUDED TO THE MAXIMUM EXTENT ALLOWABLE BY LAW. Bogen's liability arising out of the manufacture, sale or supplying of products or their use or disposition, whether based upon warranty, contract, tort or otherwise, shall be limited to the price of the product. IN NO EVENT SHALL BOGEN BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, LOSS OF DATA OR LOSS OF USE DAMAGES) ARISING OUT OF THE MANUFACTURE, SALE OR SUPPLYING OF PRODUCTS, EVEN IF BOGEN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSSES. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

Products that are out of warranty will also be repaired by Bogen Factory Service Department – same address as above or call 201-934-8500, at owner's expense. Returned products which do not qualify for warranty service, may be repaired or replaced at Bogen's option with a previously repaired or refurbished items. The parts and labor involved in these repairs are warranted for 90 days when repaired by the Bogen Factory Service Department. All parts and labor charges as well as shipping charges will be at the owner's expense.

All returns require a Return Authorization number. For most efficient warranty or repair service, please include a description of the failure.