BOGEN NYQUIST PAGING & SECURITY ALERT INTEGRATION

Enable muting by both Paging and Fire Alarm on one input

This application note shows the integration between the Bogen® Nyquist paging & intercom system and TeachLogic® Maxim™ III amplifier. This is also applicable to the TeachLogic Spectrum™ III amplifier.

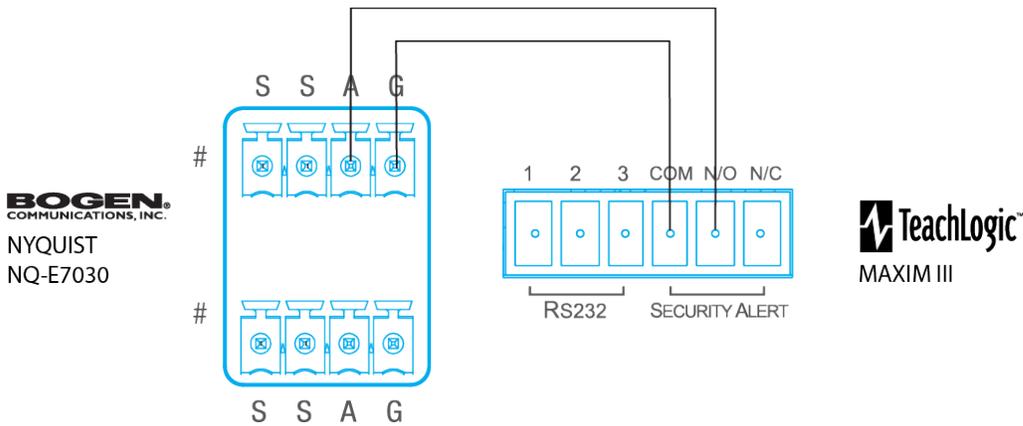## CALL INPUT (SECURITY ALERT) INTEGRATION

Summary: The Bogen NQ-E7030 Analog Station Bridge (ASB) and NQ-GA10P Intercom Module both respond to and correctly recognize an Emergency Call (4 pulses from Maxim III) and a Normal Call (1 pulse from Maxim III). With this integration, the TeachLogic Sapphire™ pendant microphone will act as a remote for the Bogen wall mounted call button/switch*.

*__Note:__ A physical Bogen wall mounted call button/switch is not required to be installed in a room for this integration to work, however, the associated ASB or NQ-GA10P station type MUST be configured in the system as having a call switch.

Configuration: The Maxim III is preprogrammed for a 4-pulse mode. It can be programed for either a 1- or 4-pulse mode. The integrator must determine customer requirements as to whether they want to set up the system for a "normal" vs. an "emergency" call. For more information on how to change the pulse mode view the "Security Alert Feature" section of Maxim III product manual.

ASB > Maxim III Connection

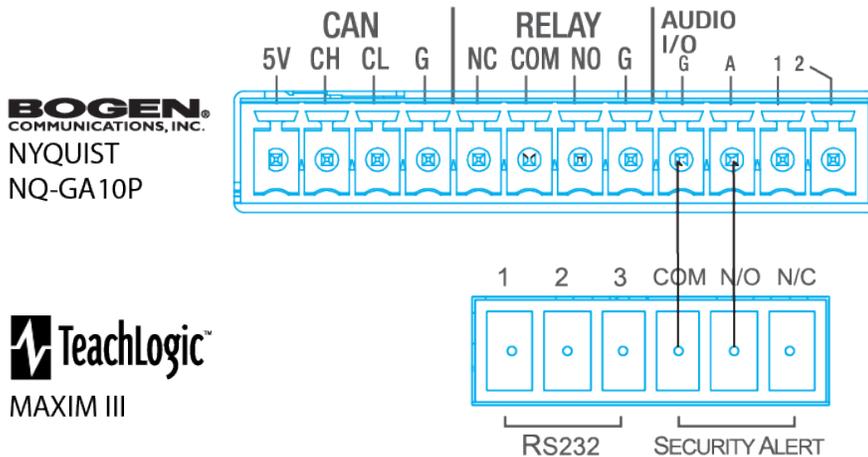1. Connect the Maxim III SECURITY ALERT "**COM**" terminal to the "**G**" terminal on any of the ASB's 24 station terminals
2. Connect the Maxim III SECURITY ALERT "**N/O**" terminal to the "**A**" terminal on the same ASB station terminal

Figure A

NQ-GA10P > Maxim III Connection

1. Connect the Maxim III "**COM**" terminal to the "**G**" terminal on the NQ-GA10P "AUDIO I/O" terminal
2. Connect the Maxim III "**N/O**" terminal to the "**A**" terminal on the NQ-GA10P "AUDIO I/O" terminal

Figure B

System Behavior: The "call" is activated by the TeachLogic IRT-60 Sapphire™ pendant microphone by pressing and holding the "Priority" switch for 4-5 seconds as seen in Figure C. With both systems on and active, test this feature. The front office should receive a call in the same manner as if the user pressed the wall mounted call button. The front office will detect this as the type of call in which the Maxim III has been programmed—either "normal" or "emergency" call.
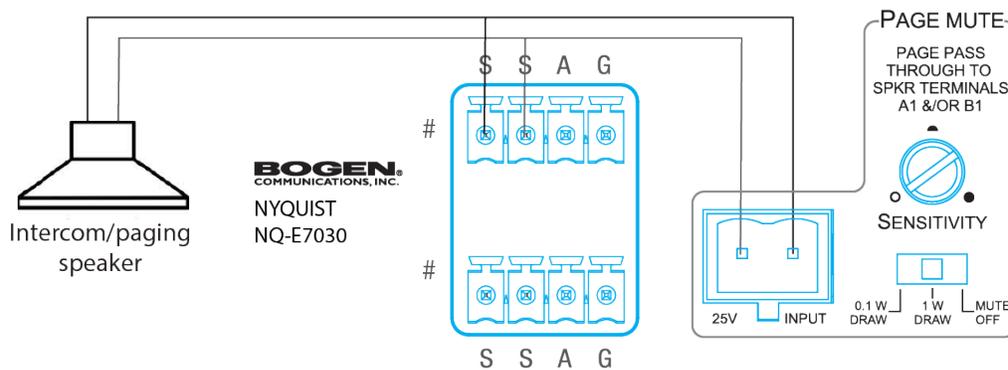
Figure C

PAGE MUTE

Summary: The Bogen ASB (NQ-E7030) and NQ-GA10P both cause the Maxim III to properly mute all audio inputs when a page is received. Conversely, this enables the Nyquist talkback function to work properly.

ASB > Maxim III Connection

The Nyquist ASB's talkback function works as does the page mute of the Maxim III from the ASB at normal volume.

1. Connect the "**S**" and "**S**" terminals of the ASB station in-parallel to the ceiling speaker and the two "**PAGE**" input pins of the Maxim III.
2. On the Maxim III, select the **1 W** slide switch setting. The power draw at this setting is 1 W.
3. Set the Maxim III **SENSITIVITY** control at minimum—fully counterclockwise (FCCW)
4. Perform a test page. Use a low voice for 15 seconds to ensure the sensitivity is high enough to maintain a mute condition for the duration of a page. Adjust sensitivity as needed.

System Behavior: When sufficient paging audio signal is detected, the Maxim III mutes all audio inputs. Maxim III resumes audio (slowly ramping up volume) 6 seconds after no additional paging audio signal is detected.

Figure D

NQ-GA10P > Maxim III Connection

The GA10P, due to its 10 W maximum power output, requires the Maxim III page sensitivity to be increased to near *maximum* when connected to the **PAGE MUTE** input.

However, for simplicity's sake, Bogen instead recommends connecting the GA10P **RELAY** "**COM**" and "**NO**" to the Maxim III **FIRE ALARM MUTE INPUT**.

The **FIRE ALARM MUTE INPUT** is designed to detect a contact closure. When closed, the Maxim III will mute all inputs.

The GA10P RELAY can be enabled in the GA10P Nyquist console configuration page to activate upon the GA10P receiving audio. Installations can vary in each space as Sound Pressure Level (SPL) and power requirements are unique.

1. Connect the "**COM**" and "**NO**" terminals of the ASB station to the **FIRE ALARM MUTE INPUT** terminals of the Maxim III.

System Behavior: When the contact is closed, the Maxim III will mute all audio inputs. Audio resumes at original volume 11 seconds after closure ceases being detected.
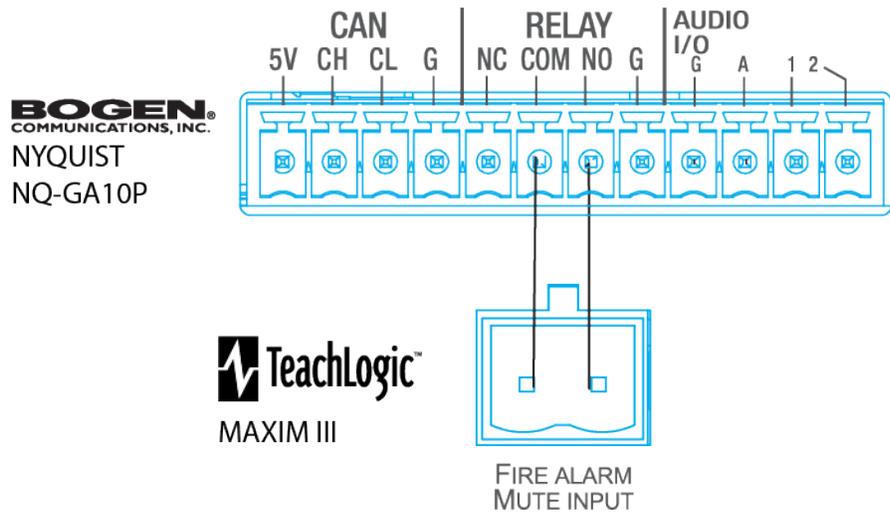
Figure E

For additional information on Nyquist configuration, contact your local Bogen representative.