Entry Door Phone Configuration Guide

NQ-EDP01

BOGEN®
COMMUNICATIONS, INC.

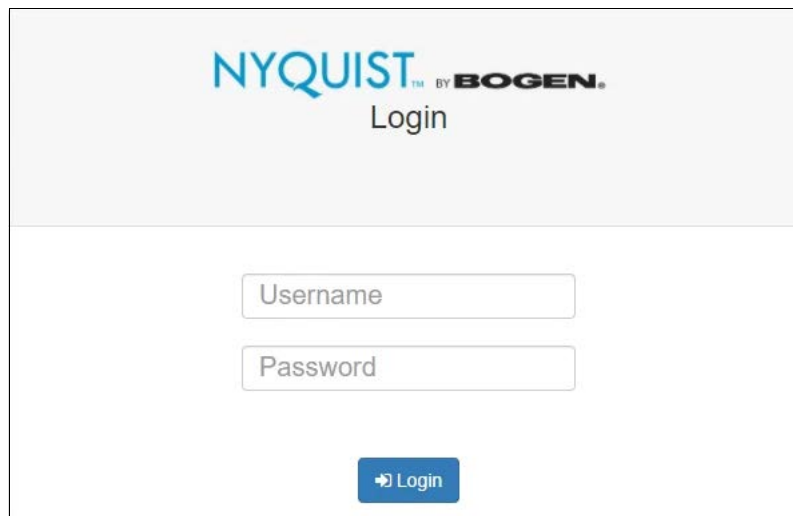# Contents

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Configuring Nyquist Entry Door Phone

The Nyquist Entry Door Phone (NQ-EDP01) is a hands-free, two-way, wall-mounted, VoIP speaker phone designed to work with the Nyquist Series IP network-based intercom and paging solution. It is 802.3af-compliant and designed to facilitate rapid and efficient deployment using existing network Power over Ethernet (PoE) ports.

This device can be used to place a VoIP/SIP call to an Admin Phone with the press of a button. The device provides *half-duplex* communication, allowing one party to speak at a time, switching automatically whenever it detects that the Admin Phone party is speaking.

The Nyquist server can automatically discover and configure the Entry Door Phone, but you can also manage the device and manually configure some settings through the web-based user interface (web UI). It can also operate in Standalone mode, allowing it to be used without a Nyquist server.

A short press of the appliance's **Reset** button reboots the device. If you press the **Reset** button for 10 seconds, the appliance returns to the factory default configuration settings. (Returning to the default configuration settings does not change the appliance's firmware.)

The following sections describe the process for manual configuration. For information about using Nyquist's automatic configuration process, refer to the *Nyquist System Administrator Guide*.

Figure 1. Nyquist Appliance Login

To access the appliance's UI:

> Note: Do not use third-party Chrome browser extensions with the Nyquist user interface.

1 Access the appliance's web UI by doing one of the following:

    a) On your web browser, enter the IP address for the appliance as the URL.

    b) From the Nyquist web UI navigation bar, select **Stations**, select **Stations Status**, navigate to the device that you want to configure, and then select the **Link** icon.

2 At the Nyquist Appliance Login page, enter username and password, and then select **Login**.

The default username is **admin**; the default password is **bogen**.

The dashboard for the selected appliance appears.

Using the Dashboard

Figure 2. Nyquist Entry Door Phone Dashboard

The dashboard displays the following fields:

Table 1. Appliance Dashboard Fields

Device Type	Identifies the model of this device.
Serial Number	Identifies the serial number for the device.
MAC Address	Specifies the Media Access Control (MAC) address, which is a unique identifier assigned to network interfaces for communications on the physical network segment.

Table 1. Appliance Dashboard Fields

Firmware Version	Provides the firmware version installed on the station.
Standalone Operation	Enables or disables Standalone mode.

The following buttons are available at the top of all pages in the application.

Table 2. Appliance Dashboard Buttons

Dashboard	Displays the dashboard.
Configuration Settings	Accesses the Configuration Settings page where you can view various options or select to receive configuration settings from the server.
Network Settings	Accesses the Network Settings page where you can view and set network settings, such as the static IP address.
Firmware Update	Accesses the Firmware Update page where you can view the current Nyquist version, update firmware to a new version, the configuration to factory defaults, and reboot the appliance.
Logs	Accesses log files, which record either events or messages that occur when software runs and are used when troubleshooting the appliance.
DSP	Accesses the DSP page where you can view and set parameters for Digital Signal Processing (DSP).
Help	Accesses the appliance's online help.
Manual	Displays the *appliance's configuration manual*.
Logout	Logs out of the appliance's dashboard.

Updating Firmware

When you select **Firmware Update** from the appliance's web UI, the Firmware Update page appears. From this page you can determine which Nyquist firmware version the appliance is using and if an update is available. You can also load a firmware release, install the loaded firmware, restore the configuration to factory defaults, and reboot the appliance.

> *Note:* A Nyquist appliance connected to the Nyquist network receives a configuration file from the Nyquist server that includes the latest firmware available from the server. If the firmware is different from the one installed on the appliance, an automatic firmware update occurs unless the **Firmware** parameter for the station is left blank. Refer to the *Nyquist System Administrator Guide* for more information.

Figure 3. Firmware Update Page

To use the Firmware Update page:

1   On the appliance web UI's main page, select **Firmware Update** to view or update the firmware version.

2   If the device is in Standalone mode, selecting the **Check for Updates** button checks the Bogen website for the latest firmware version available. If a version newer than the one currently installed is found, it is downloaded to the appliance.

3   If you already have a firmware file you would like to install to the appliance, select **Upload Firmware** to upload the firmware file from your computer to the appliance. A popup screen appears that allows you to select the file that you want to upload. You can navigate to the file's location. After you select the file, select **Upload**.

4   The page displays the uploaded firmware version ("New Nyquist Version") and an **Update Firmware** button appears. Select this button if you want to update the appliance's firmware to the uploaded version.

5   If you want to return your appliance to its original factory configuration, select **Restore Factory Settings**.

6   Select **Reboot Appliance** to restart your appliance.

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Table 3. Firmware Update settings

Current Nyquist Version	Shows the version of the appliance's currently installed firmware.
New Nyquist Version	Shows the version of the firmware that has been loaded, though not installed, onto the appliance.
Update Firmware	Available only when a new firmware version has been loaded onto the appliance (as specified in New Nyquist Version).
	Installs the loaded firmware. A reboot may be required after installation.
Upload Firmware	Prompts the user to specify a firmware file, which will then be loaded (though not installed) onto the appliance.
	Note: To obtain the firmware file for a specific version, please contact Bogen Customer Service.
Check for Updates	Available only when the appliance is configured for Standalone mode.
	Checks the Bogen website for the latest firmware version available and, if it finds a version newer than what is currently installed, downloads it to the appliance.
Restore Factory Settings	Returns the appliance to its original factory configuration.
	Note: This does not install the original appliance firmware. The firmware will not be changed.
Reboot Appliance	Restarts the appliance.

Network Settings Tab Parameters

Network settings can be configured dynamically by the Nyquist server or manually by using the appliance's web UI.

To manually configure network settings:

1 On the appliance web UI's main page, select **Network Settings**.

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2 Select your desired network settings.

3 Select **Save**.

Figure 4, Network Settings

Network settings are described in the following table:

Table 4, Network Settings

IP Address	Identifies the IP address assigned to the appliance.
Netmask	Identifies the subnetwork subdivision of an IP network.
Gateway	Identifies the address, or route, for the default gateway.
VLAN ID	Identifies the Virtual Local Area Network (VLAN) for this appliance. Values range from 0 to 4094.
VLAN Priority	Identifies the priority of the network traffic on the VLAN. Priority can range from 0 through 7.

NTP Server	Identifies the IP address or the domain name of the Network Time Protocol (NTP) Server. *Note:* This field is only editable when Standalone Operation is enabled.
TFTP Server	Identifies the host name or IP address of the Trivial File Transfer Protocol (TFTP) server. The specified TFTP server can be used to automatically set this device's **Configuration** settings via the **Get Configuration from Server** button. If **TFTP Server from DHCP** (see below) is set to "Yes", this value will be auto-configured via DHCP option 66, assuming the DHCP server has been configured to provide option 66. For details, see the documentation for your DHCP server. *Note:* A TFTP server runs on the Nyquist server on port 69 (the standard TFTP port) and the optional Nyquist DHCP service automatically provides this TFTP address via option 66. *Note:* If this value is unspecified, the **TFTP Server from DHCP** will automatically be set to "Yes", this field will become read-only, and DHCP will be used to configure this setting. To change this value, the **TFTP Server from DHCP** setting must be set to No, which makes the field editable. *Note:* This setting is not available when Standalone Operation is enabled.
TFTP Server from DHCP	"Yes" means the device will use the DHCP option 66 value to retrieve an address for the TFTP Server from DHCP. "No" means the device will ignore the DHCP option 66 value and use the manually configured value of the TFTP Server (see above). *Note:* This setting is not available when Standalone Operation is enabled.

DHCP Enabled	Indicates if the device is enabled to use DHCP to retrieve its IP configuration.
Reboot Appliance	Indicates that this appliance should reboot when the Save button is clicked.

Configuration Settings Tab Parameters

The easiest way to configure Nyquist appliances is to obtain configuration settings from the Nyquist server by selecting **Get Configuration From Server**. However, you can manually configure an appliance through the appliance's Web UI when Standalone Operation is enabled (see "*Standalone Operation Configuration Settings" on page 10*).

To view the Nyquist appliance configuration:

1 On the appliance Web UI's main page, select **Configuration Settings**.

2 View the settings as described in Table 5 on page 9.

Figure 5. Appliance Configuration Settings (Standalone disabled)

The following table describes the **Configuration Settings** tab settings:

Table 5. Configuration Settings (Standalone disabled)

Get Configuration from Server	Retrieves configuration settings (i.e., web username, server, and local port) from the TFTP server specified in the Network Settings (see "*Network Settings Tab Parameters" on page 5*).
Web Username	Identifies the username of the current user. This field is read-only.
Emergency-All-Call	These fields are currently not used.
All-Call	These fields are currently not used.
Audio Distribution	These fields are currently not used.

Standalone Operation Configuration Settings

Figure 6. Appliance Configuration Settings (Standalone enabled)

The following table describes the Configuration Settings tab settings when Standalone Operation is enabled for this device:

Table 6. Configuration Settings (Standalone enabled)

Device Type	Displays the type of this device.
Device Name	Provides a name for this device.
Web Username	Specifies a web username for this appliance.
Web Password	Specifies a web password for logging into the appliance.
Web Confirm Password	Re-enter the password used to log into the appliance.
Time Zone	Specifies the time zone in which the device resides.
SIP Server Address	Specifies the IP address of the SIP Registration Server with which the device will register.

Table 6. Configuration Settings (Standalone enabled)

SIP Extension Specifies the SIP extension for this device.

The extension, along with the IP address, is used to specify the URI used to place a SIP call to this extension:

sip:<extension>@<local_ip_address>

SIP Network Port Specifies the IP port on which to communicate with the SIP Registration Server (typically 5060).

SIP Username Specifies the SIP username used to register with the SIP server.

SIP Password Specifies the SIP registration password used to register with the SIP server.

Dial Extension Specifies the extension number of the Admin Phone to call when the device's call button is pressed.

Intercom Cut Level Specifies the cut level for the speaker.

This can be a value from -42 to 0 dB.

The default value is -20 dB.

Note: To modify, click on the value, adjust the slider on the popup using the cursor keys or mouse, and click the check box button.

Accessing Log Files

A log file records events and messages that occur when software runs, to be used when troubleshooting the appliance. From the appliance's web-based UI, log files can be viewed directly or exported via download to your PC, Mac, or Android device, where they can be copied to removable media or attached to an email for technical support.

To view a log file:

1 On the appliance Web UI's main page, select **Logs**.

2 From the drop-down menu, select the log that you want to view.
Multiple versions of the same log, and zipped copies of the log, may be available.

3 To export the file, select **Export**.
A link to a .txt file appears in the browser's lower left corner.

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Figure 7, Logs

Available logs are described in the following table. If a log file is empty, however, it will not appear in the drop-down list of available logs.

Table 7, Logs

Log	Description
ampws.log	Contains information about protection status and logs protection events with temperature information at the time of event.
auth.log	Contains system authorization information, including user logins and authentication methods that were used.
btmp	Contains information about failed login attempts.
daemon.log	Contains information logged by the various back-ground daemons that run on the system.
debug	Contains errors and debug information.
dpkg.log	Contains information that is logged when a package is installed or removed using dpkg command.
faillog	Contains user failed login attempts.

Log	Description
kern.log	Contains information logged by the kernel and recent login information for all users.
lastlog	Contains information on the last login of each user.
messages	Contains messages generated by Nyquist.
php5-fpm.log	Contains errors generated by the PHP script.
syslog	Contains list of errors that occur when the server is running and server start and stop records
user.log	Contains information about all user level logs.
wtmp	Contains historical record of users logins at which terminals, logouts, system events, and current status of the system, and system boot time.

Setting DSP Parameters

When you select DSP from the appliance's web UI, the DSP page appears.
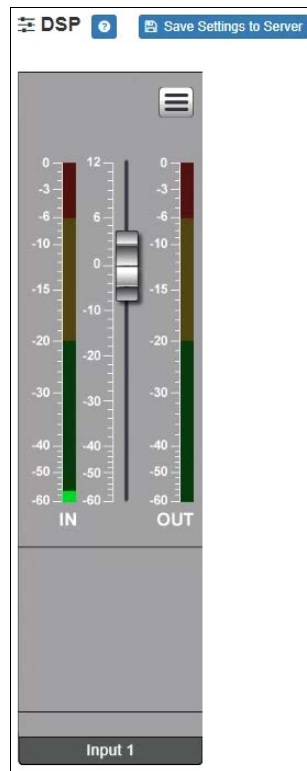
Figure 8. DSP Page

From this page, you can configure the device's Digital Signal Processing (DSP) features, a form of processing that uses digital data to simulate characteristics found in analog circuits. With DSP, you can alter analog signals, such as audio or video signals, that have been converted to a digital format.

The DSP page allows you to adjust the microphone input gain slider, as well as viewing level indicators for both the input and output signals. Selecting the DSP Features button (hamburger menu above the OUT signal indicator) displays a menu that allows you to access DSP features, as described in the following table.

Tip: You can select **Save Settings to Server** to back up all configuration settings to the Nyquist server.

Note: The slide control controls the input gain of the microphone, not the output level of the speaker. To control the output level of the speaker, use the **Intercom Cut Level** control for this station on the Nyquist System Controller. If this device is in Standalone mode, the output level can be controlled using the **Intercom Cut Level** control on the Configuration Settings page.

Table 8. DSP Features

Intercom Tuning	Allows you to specify when the intercom switches between send and receive modes.

Intercom Tuning

The Entry Door Phone provides *half-duplex* communications, which means that only one party can transmit at a time. Which party can transmit (i.e., this Entry Door Phone or the Admin Phone) is controlled automatically by the Intercom Tuning settings. Whenever a signal from the Admin Phone exceeds a certain level—known as the *switching sensitivity* level—the Entry Door Phone switches to receive mode, allowing the party using the Admin Phone to speak. When the signal is below that level, it switches back to send mode, allowing the party using the Entry Door Phone to speak.

Selecting **Intercom Tuning** from the **Menu** icon on the DSP page displays the Intercom Tuning page.
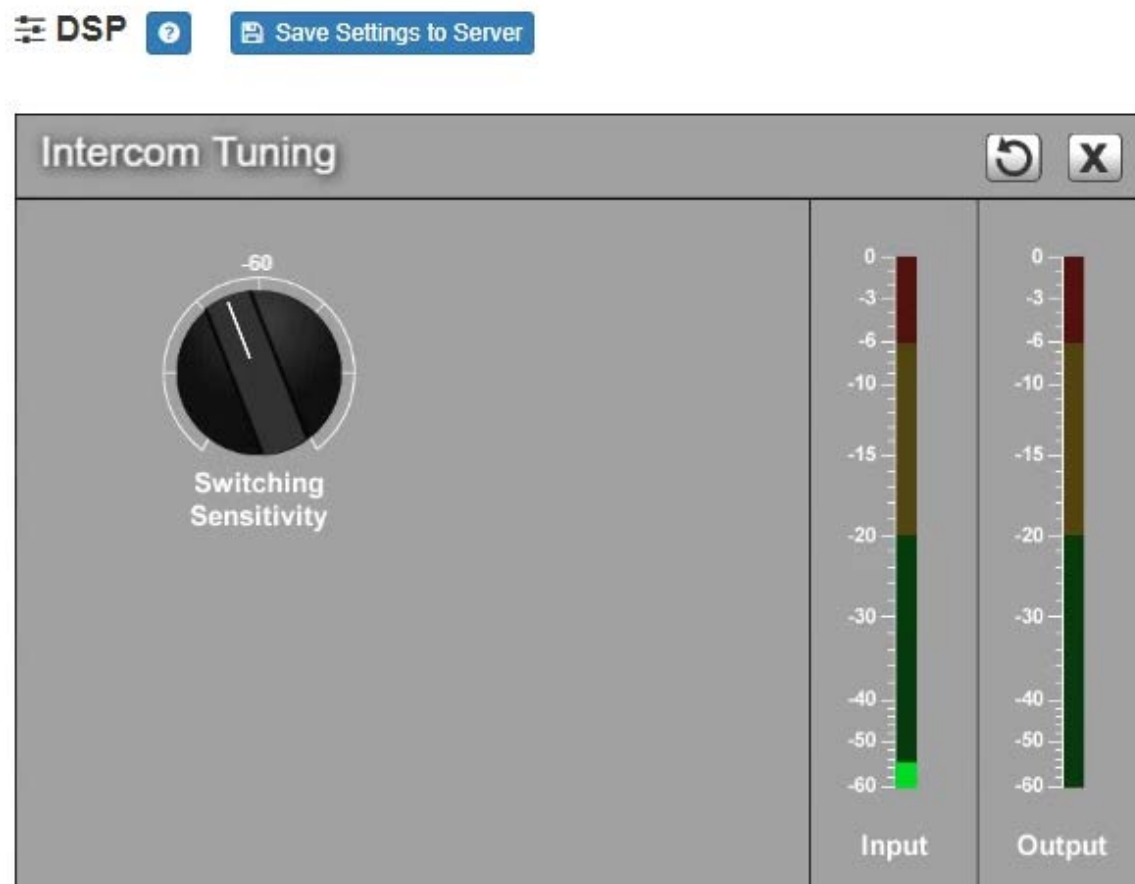
Figure 9. Intercom Tuning Settings

The Intercom Tuning page has LEDs for input and output signals and contains the following settings (see *Table 9*).

Table 9. Intercom Tuning Settings

Switching Sensitivity   Specifies the input level above which the Admin Phone transmits, below which the Entry Door Phone transmits.

The range is -90 to -20 dB.