Zone Paging Microphone Station User Guide

NQ-ZPMS

Contents

Using the Zone Paging Microphone Station

The Bogen NQ-ZPMS Zone Paging Microphone Station is primarily designed for high zone-count commercial applications (e.g., transportation hubs, etc.), wherever a lot of zone paging occurs, or where a flexible microphone station is desired; however, it can also be used as an alternative to the NQ-T1100 Admin Phone.

The phone's color touch screen provides rapid, efficient, and reliable control over many Nyquist features, such as pages, announcements, audio distributions, routines, tones, and managing school/site bell schedules. Its flexible gooseneck microphone, coupled with quick access to a large number of soft zone page buttons, makes it ideal for "busy" paging applications with lots of paging zones, such as transportation terminals or large commercial facilities.

This manual guides you through the use of the NQ-ZPMS with the Nyquist system.

Tip: Simplified setup, configuration, and usage instructions are available in the *NQ-ZPMS Quick Installation Guide..*

Hardware Components and Features

The main components of the NQ-ZPMS are the 10.1-inch, 1280×800 pixel, color touchscreen display and five feature keys.

Touch Screen
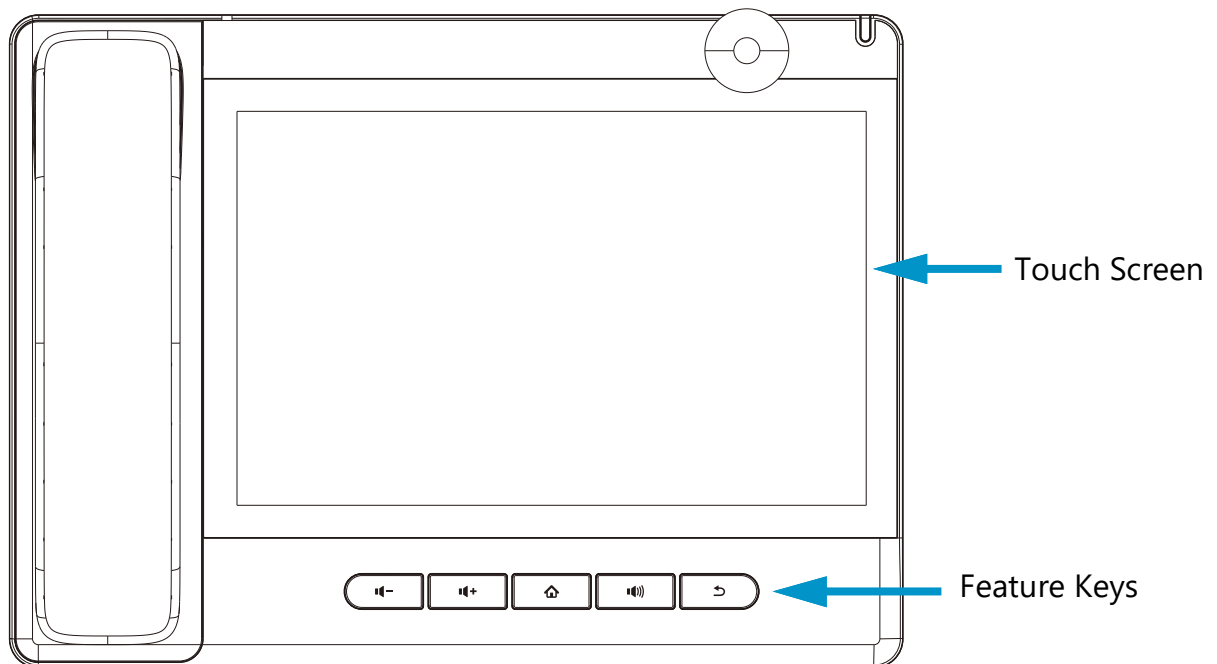
Feature Keys

Figure 1. Hardware Components

The feature keys are described in the following table:

Table 1. Feature Keys

🔊−	**Decrease Volume**	Decreases the volume of the ringer, speaker, handset, or headset.
🔊+	**Increase Volume**	Increases the volume of the ringer, speaker, handset, or headset.
⌂	**Home**	Returns the display screen to the Home page.
🔊)))	**Speakerphone**	Activates and deactivates hands-free speakerphone mode.
↵	**Return**	Returns the display screen to the previous page or menu.

The touchscreen display has two resting display screens: Desktop and Line Keys. In addition, there are other predefined screens—such as the Call Dialer—which are displayed during various device operations. Each of the display screens and most SoftKey screens can be customized through the Nyquist server and/or the phone's configuration settings.

Desktop Screen

Figure 2. Desktop Display screen

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On the Desktop screen (shown in *Figure 2, "Desktop Display screen," on page 2*), the touchscreen displays the date and time, shortcuts to various phone functions, the first six Line Keys, and the Unfold button, which displays the Line Keys screen. At the top of the screen is a status bar, which displays this device's extension, connection state, and various indicators, such as message waiting, forward enabled,

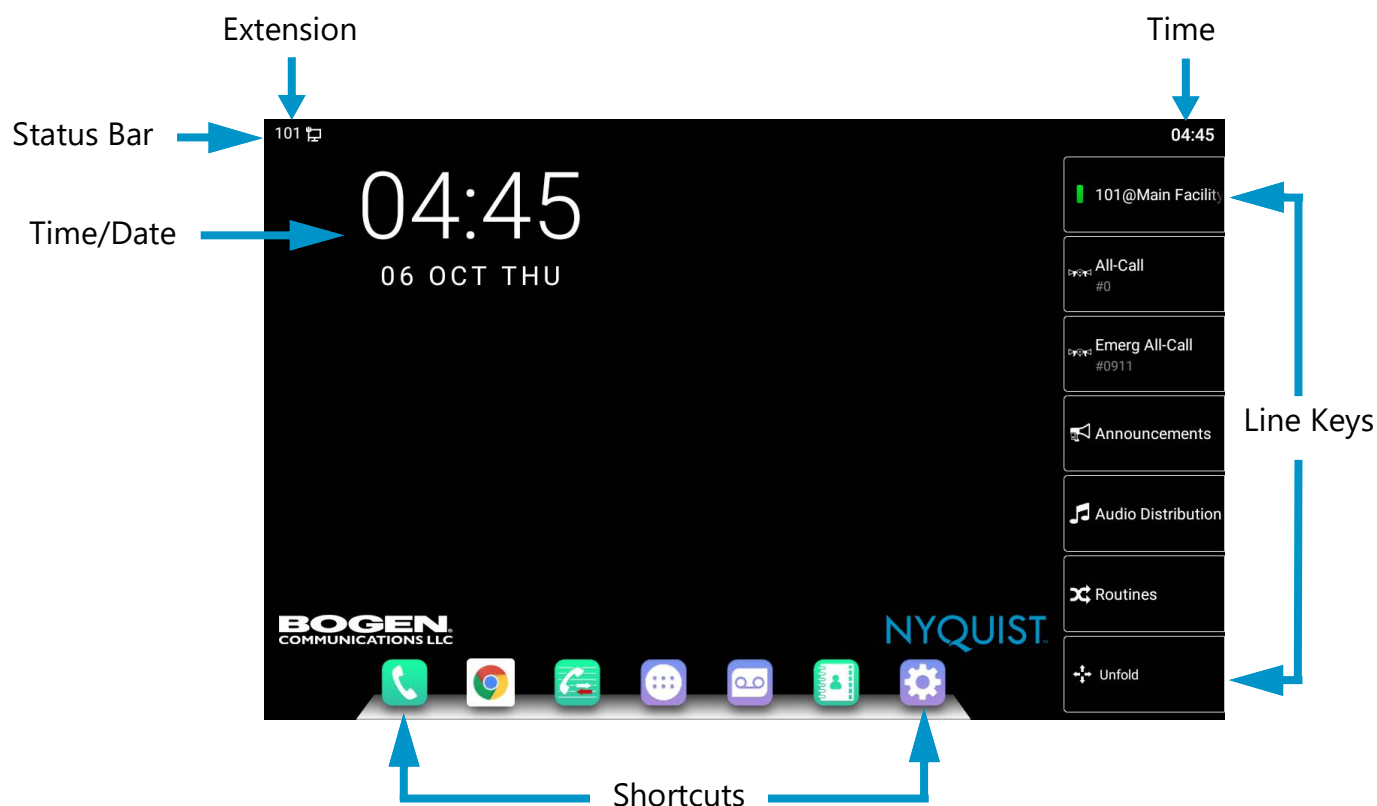*Tip:* The shortcut buttons and widgets that are displayed on the desktop can be customized by touching and holding the screen or widgets.

Line Keys Screen
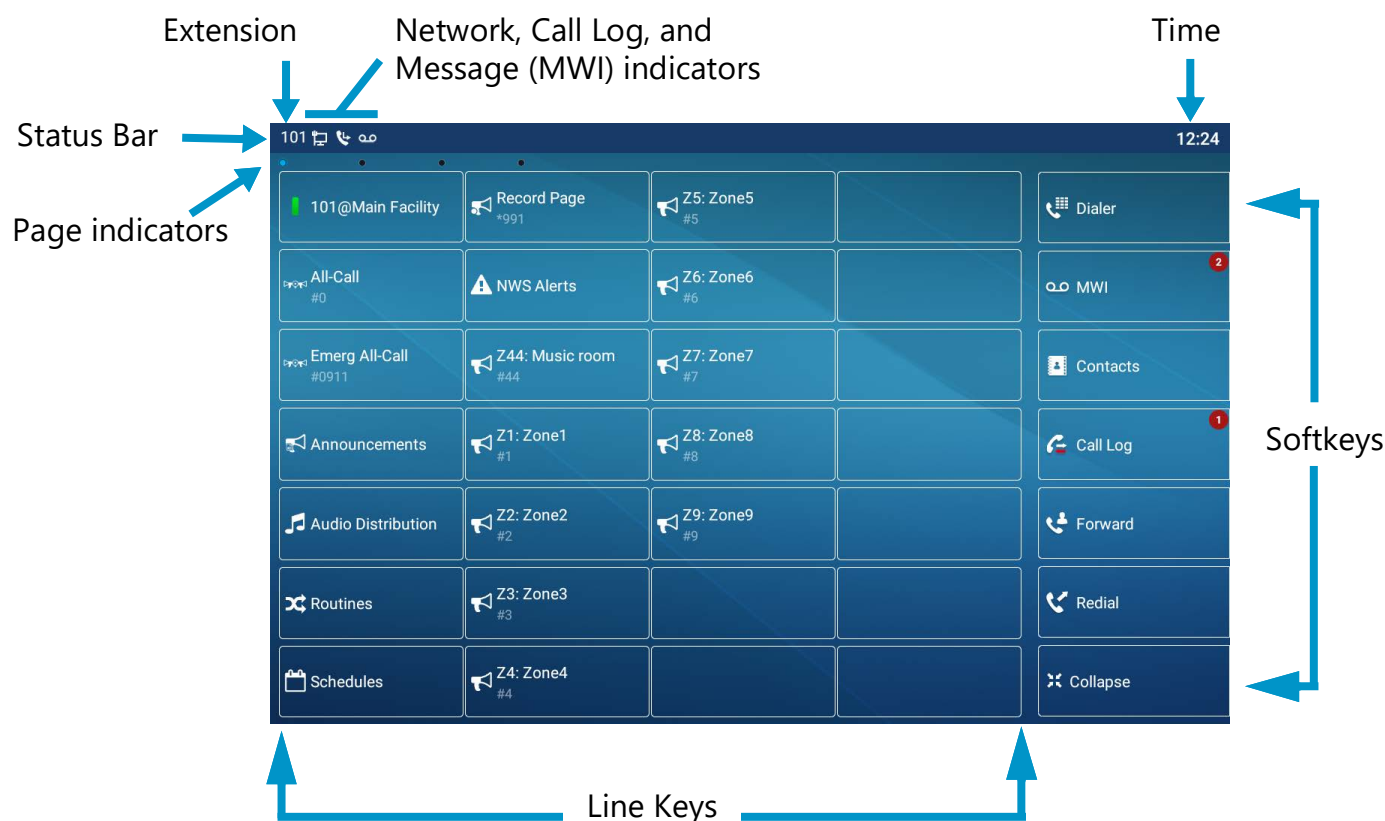
Figure 3. Line Keys screen

The Line Keys mode (shown in *Figure 3, "Line Keys screen," on page 3*) displays the Line Keys (sometimes known as Direct Station Selection[DSS] keys or Function Keys), which can be customized per station via the Nyquist controller's **Edit Line Keys** feature. It allows you to quickly initiate pages, access and change Schedules, start Routines, manage Audio Distribution, and many other Nyquist features. It also displays one Line Key for each Nyquist-defined zone, each Line Key programmed to initiate a page operation to that zone.

Above the Line Keys are four dots, representing the four pages of Line Keys that can be displayed, with the current page indicated by a blue dot. Swipe left or right on the screen to view the other pages.

On the right edge of the screen are seven *Softkeys*, which are NQ-ZPMS function keys: Dialer, MWI (for Message Waiting Indicator), Contacts, Call Log, Forward, Redial, and Collapse, which displays the Desktop screen.

Important:	The Line Keys mode is the default for the NQ-ZPMS. For this reason, this document will assume that this is the starting screen for most operations.

Dialer Screen

The Dialer screen (shown in *Figure 4, "Dialer screen," on page 4*) is displayed when the receiver is lifted to dial a number. In addition to the expected keypad, volume keys, and call initiation keys, i.e., the handset icon for voice calls and camera icon for video calls (video calls are not supported by Nyquist), it also displays a list of *Softkeys* along the leftmost edge, as well as the first six Line Keys and the Unfold key on the rightmost edge.

Figure 4. Dialer screen

Network PhoneBook Screen

The Network PhoneBook screen (shown in *Figure 5, "Network PhoneBook Screen (Features phonebook selected)," on page 5*) provides access to a variety of features.

The screen is divided into four columns:

- **Operations**: Provides editing, deleting, searching, and the "Hide/Show Phonebooks" button, which can hide or show the **Phonebooks** column.

- **Phonebooks**: Provides an editable list of Phonebooks, the defaults being:

  - Alarms
  - Features
  - Stations
  - Tones

- **Phonebook Entries**: Displays a list of entries for the selected Phonebook, including their names and DTMF codes. Selecting an item will activate it. Selecting the information icon ⓘ will open the display screen for this entry.

- **Lists**: Provides buttons for four types of lists:
  - Contacts
  - Group
  - Network PhoneBook
  - DoorAccess List (not used by the Nyquist system)
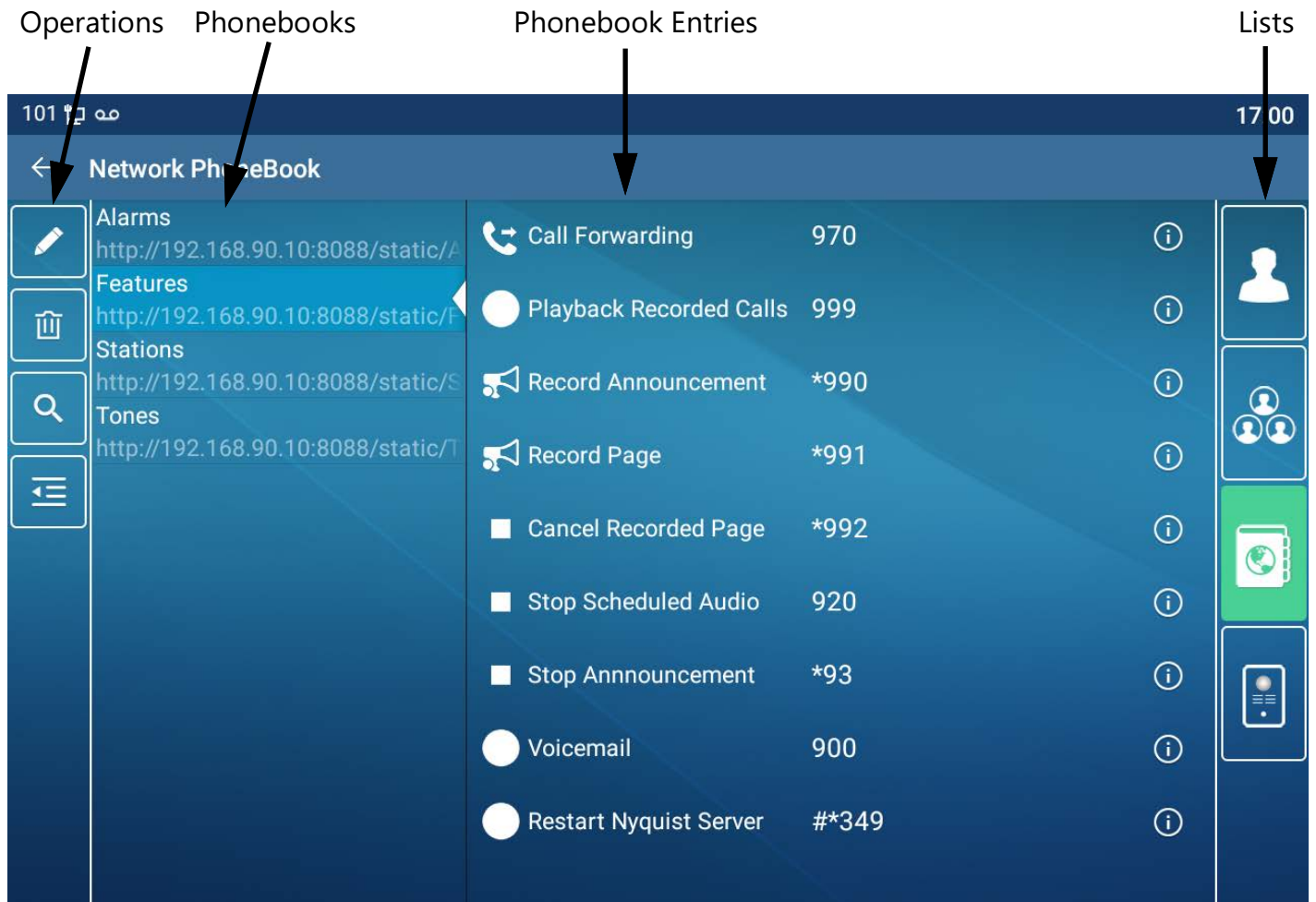

Figure 5. Network PhoneBook Screen (Features phonebook selected)

Other Phonebook Screens

The Contacts and Group keys in the Lists columnprovide access to other Phonebook-related features of the NQ-ZPMS. These features are beyond the scope of this document, but they can be customized through this interface or by accessing the Phonebook tab of the NQ-ZPMS's web interface.

Configuring the NQ-ZPMS

Add a Station for the NQ-ZPMS

Before continuing with the following configuration instructions, the NQ-ZPMS must be manually added to the Nyquist system as a Station. Refer to the *Nyquist System Administrator Guide* for instructions on adding the NQ-ZPMS IP phone, using a Device Type of **NQ-ZPMS Zone Paging Microphone Station**.

Note: You will need to know the MAC address of the NQ-ZPMS device being added, which can be found on the back of the device.

Once a new station has been added to the Nyquist system, the steps necessary to configure the NQ-ZPMS is determined by the network scenario in which the NQ-ZPMS will be installed:

- *"Set up with DHCP and DHCP option 66 available" on page 6*
- *"Set up with DHCP (DHCP option 66 unavailable)" on page 7*
- *"Set up with static IP address (DHCP unavailable)" on page 8*

Once the NQ-ZPMS has been configured, see *"Validate the Provisioning Procedure" on page 10* to validate that it has been successfully configured.

Set up with DHCP and DHCP option 66 available

If your Nyquist network is configured to use DHCP to allocate IP addresses, and the DHCP server has been set up to provide the Nyquist server's IP address via DHCP option 66, then all you need to do is plug the NQ-ZPMS into the network using a PoE (Power over Ethernet) network port. When using DHCP with option 66, the NQ-ZPMS will automatically obtain an IP address, automatically download configuration information from the Nyquist server, and automatically register a VoIP SIP account with the Nyquist server. No further configuration is required on the NQ-ZPMS.

If your NQ-ZPMS has previously been configured, it may not currently be setup for automatic provisioning. If this is the case, you should reset the device.

Resetting the NQ-ZPMS using the touch screen interface:

1   Connect NQ-ZPMS to the network using a PoE network port.

2   Once the NQ-ZPMS has started, if you are prompted for the language and time zone, the phone has already been reset.

3   Press the NQ-ZPMS's **Home** feature key.

4   Touch the **Phone Settings** shortcut key ⚙.

5   Touch **Maintain** (scroll to the bottom of the page).

6   Enter the admin password (default is `bogen`), then touch **OK**.

7   Touch **Phone Reset**.

8   Touch **Reset**.

9   Touch **Reset** to reset and reboot the NQ-ZPMS.

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Set up with DHCP (DHCP option 66 unavailable)

The following steps will set up the NQ-ZPMS for use in a network environment where DHCP will provide the NQ-ZPMS with an IP address, but will not provide the Nyquist server's IP address via DHCP option 66, which will therefore need to be configured manually.

Configuring the NQ-ZPMS using the web interface

1 Connect NQ-ZPMS to the network using a PoE network port.

2 Once the NQ-ZPMS has started, specify the language and time zone (if prompted for them).

3 Identify the NQ-ZPMS's Internet Protocol (IP) address by doing one of the following:

   - Press the NQ-ZPMS's **Home** feature key, press the **Phone Settings** shortcut key ⚙, then press the **Network** menu item to display its IP address.
   - Locate the IP address in your network's Dynamic Host Configuration Protocol (DHCP) client table.

4 Open your computer's web browser, enter the NQ-ZPMS's IP address (for example, `http://192.168.0.10` or `192.168.0.10`) in the address bar, and then press Enter. You may see a warning that the connection to this address is not secure, which is because the device is using HTTP instead of HTTPS. Continue to the site. The browser will display the NQ-ZPMS's web UI.

5 On the login page, enter the **Username** (default is `admin`) and **Password** (default is `bogen`) and click **Login**.

6 Click **System** from the left (vertical) menu.

Tip: If the menu tabs are not visible, refresh the page.

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7 Click the **Auto Provision** tab from the top (horizontal) menu.

8 Enable the **Save Auto Provision Information** checkbox (optional).

9 Configure the **Static Provisioning Server** section:

   a) Set **Server Address** to the IP address of the Nyquist server

   b) Set **Configuration File Name** to `<zpms-mac-address>.cfg`, where `<zpms-mac-address>` is the lowercase MAC address of the NQ-ZPMS.

Tip: Be sure to use lowercase letters and remember to append ".`cfg`" to the MAC address.

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   c) Set **Protocol Type** to *TFTP*.

   d) Set **Update Mode** to *Update After Reboot*.

10 Click the **Apply** button.

11 Click the **Autoprovision Now** button (in the **Autoprovision Now** section).

12 The phone will download its configuration information from the server and register a VoIP SIP account with the Nyquist server.

Configuring the NQ-ZPMS using the touch screen interface

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1   Connect NQ-ZPMS to the network using a PoE network port.

2   Once the NQ-ZPMS has started, specify the language and time zone (if prompted for them).

3   Press the NQ-ZPMS's **Home** feature key.

4   Touch the **Phone Settings** shortcut key ⚙.

5   Touch **Maintain** (scroll to the bottom of the page).

6   Enter the admin password (default is `bogen`), then touch **OK**.

7   Touch **Auto Provision**.

8   Touch **Server Address**, enter the Nyquist server's IP address, and touch **OK**.

9   Touch **Config file name**, then enter `<zpms-mac-address>.cfg` (where `<zpms-mac-address>` is the lowercase MAC address of the NQ-ZPMS, which can be found on the back of the device).

Tip: You can enter digits by touching and holding the letter on which the superscript number is displayed.

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10 Touch **Protocol Type** and select **TFTP**.

11 Touch **Update Mode** and select **Update after reboot**.

12 Touch the back arrow twice to return to the **Phone Settings** menu.

13 Touch **Reboot** to reboot the NQ-ZPMS.

The phone will reboot, automatically download its configuration information from the server, and register a VoIP SIP account with the Nyquist server.

Set up with static IP address (DHCP unavailable)

The following steps will set up the NQ-ZPMS using a static IP address instead of DHCP-allocated IP addresses.

When you first plug the NQ-ZPMS into your network, it typically receives an IP address via DHCP because DHCP is the phone's default configuration; it does *not* have a static IP address set by default.

Configuring the NQ-ZPMS using the web interface

Important: To connect to the web interface, the NQ-ZPMS must already be assigned an IP address. If the device does not have access to a DHCP server to provide it with a temporary IP address, then follow the instructions under *Configuring the NQ-ZPMS using the touch-screen interface* to manually configure the IP settings.

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1   Identify the NQ-ZPMS's temporary (DHCP-assigned) IP address by doing one of the following:

- Press the NQ-ZPMS's **Home** feature key, the **Phone Settings** shortcut key ⚙, then the Network menu item to display its IP address.
- Locate the IP address in your network's Dynamic Host Configuration Protocol (DHCP) client table.

2   Open your computer's web browser, enter the NQ-ZPMS's IP address (for example, `http://192.168.0.10` or `192.168.0.10`) in the address bar, and then press Enter. You may see a warning that the connection to this address is not secure, which is because the device is using HTTP instead of HTTPS. Continue to the site. The browser will display the NQ-ZPMS's web UI.

3   On the login page, enter the **Username** (default is `admin`) and **Password** (default is `bogen`) and click **Login**.

4   Click **Network** from the left (vertical) menu.

Tip: If the menu tabs are not visible, refresh the page.

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5   Click the Basic tab from the top (horizontal) menu.

6   Select **Static IP** from the **IPv4 Settings** section.

7   Enter desired values for **IP**, **Subnet mask**, **Default gateway**, **Primary DNS Server,** and **Secondary DNS Server**.

Tip: If you do not know which DNS addresses to use, you can specify publicly available DNS servers, such as *Cloudflare 1.1.1.1* (1.1.1.1 and 1.0.0.1) or *Google Public DNS* (8.8.8.8 and 8.8.4.4).

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8   Click the **Apply** button.

9   The NQ-ZPMS's IP address should immediately change to the new IP address. Enter the NQ-ZPMS's new IP address in the address bar of your browser and press Enter to navigate back to the device's web interface.

10   Click **System** from the left (vertical) menu.

11   Click the **Auto Provision** tab from the top (horizontal) menu.

12   Configure the **Static Provisioning Server** section:

  a)   Set **Server Address** to the IP address of the Nyquist server

  b)   Set **Configuration File Name** to `<zpms-mac-address>.cfg`, where `<zpms-mac-address>` is the lowercase MAC address of the NQ-ZPMS.

  c)   Set **Protocol Type** to *TFTP*.

  d)   Set **Update Mode** to *Update After Reboot*.

13   Click the **Apply** button.

14   Click the **Autoprovision Now** button (in the **Autoprovision Now** section).

15   The phone will reboot, automatically download its configuration information from the server, and register a VoIP SIP account with the Nyquist server.

Configuring the NQ-ZPMS using the touchscreen interface

1   Connect NQ-ZPMS to the network using a PoE network port.

2   Once the NQ-ZPMS has started, specify the language and time zone (if prompted for them).

3   Press the NQ-ZPMS's **Home** feature key.

4   Touch the **Phone Settings** shortcut key, .

5 Touch **Ethernet**.

6 Touch **Network Mode**.

7 Select **Static**.

8 Enter desired values for **IP address**, **Subnet mask**, **IP gateway**, **Primary DNS,** and **Secondary DNS**.

Tip: If you do not know which DNS addresses to use, you can specify publicly available DNS servers, such as Cloudflare 1.1.1.1 (1.1.1.1 and 1.0.0.1) or Google Public DNS (8.8.8.8 and 8.8.4.4).

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9 Touch **Save**.

10 Touch the back arrow.

11 If the NQ-ZPMS will be connected to a VLAN, touch **Advanced**, touch **VLAN**, and select the configure the device according to your VLAN setup. When complete, return to the **Phone Settings** menu.

12 Touch **Maintain** (scroll to the bottom of the page).

13 Touch **Auto Provision**.

14 Touch **Server Address**, enter the Nyquist server's IP address, and touch **OK**.

15 Touch **Config file name**, then enter `<zpms-mac-address>.cfg`, where `<zpms-mac-address>` is the lowercase MAC address of the NQ-ZPMS, which can be found on the back of the device.

Tip: You can enter digits by touching and holding the letter on which the superscript number is displayed.

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16 Touch **Protocol Type** and select **TFTP**.

17 Touch **Update Mode** and select **Update after reboot**.

18 Touch the back arrow twice to return to the **Phone Settings** menu.

19 Touch **Reboot** to reboot the NQ-ZPMS.

20 The phone will reboot, automatically download its configuration information from the server, and register a VoIP SIP account with the Nyquist server.

Validate the Provisioning Procedure

The NQ-ZPMS has successfully completed the provisioning process if:

- the device appears in the **Stations Status** view of the Nyquist server with a valid IP address and a **Status** other than *Unavailable*, and

- at least one active line (e.g., Account1) appears as *Registered* on the NQ-ZPMS after pressing **Phone Settings** ⚙, then **Account**.

Tip: If you need to adjust the time, date, time zone, or Daylight Savings Time settings for the NQ-ZPSMS, you can do so via the device's **Settings / Date & Time / Date & Time** menu.

Updating Firmware

Upon installing a new NQ-ZPMS, you should promptly ensure it is using the latest firmware. There are two mechanisms for doing this: (1) via the NQ-ZPMS web interface and (2) via the NQ-ZPMS touch-screen interface.

Warning   The phone will be offline and unavailable during the upgrade process.

Update firmware via web interface:

1   Log into the web interface, then click **System** from the left (vertical) menu.

Tip: If the menu tabs are not visible, refresh the page.

2   Click the **Upgrade** tab from the top (horizontal) menu.

3   If the server contains NQ-ZPMS firmware files with a version newer than the current firmware version, the **Upgrade** button under the **Firmware Information** section will be enabled.

4   Click the **Upgrade** button and press OK.

5   The upgrade progress will be displayed as a circle with the percentage complete.

6   During this process, the NQ-ZPMS will display download and upgrade status, indicating the current firmware version, the upgraded firmware version, and a progress bar.

7   Wait for the firmware upgrade to complete.

Update firmware via touchscreen interface:

1   Press the NQ-ZPMS's **Home** feature key.

2   Touch the **Phone Settings** shortcut key .

3   Touch **Maintain** in the **System** section (scroll to the bottom of the page).

4   Touch **Update**.

5   If the server contains NQ-ZPMS firmware files with a version newer than the current firmware version, the **Update** button will be enabled.

6   Click the **Update** button and press OK.

7   During this process, the NQ-ZPMS will display download and upgrade status, indicating the current firmware version, the upgraded firmware version, and a progress bar.

8   Wait for the firmware upgrade to complete.

Important: For some releases, it may be necessary to repeat this process twice for the firmware to be fully updated. Check the **Current Software/Firmware Version** after the process has completed; if it has not been updated, repeat the process a second time.

Making Pages

Nyquist allows the following types of pages:

- Multi-Site All-Call
- Multi-Site Emergency-All-Call
- All-Call
- Emergency All-Call
- Zone
- Recorded

Note: The ability to make pages is determined by the Class of Service (CoS) configuration assigned to your NQ-ZPMS station by your system administrator. If you do not have access to a paging feature but the key is still present, "Access Denied" will be displayed under the feature label.

Multi-Site Emergency-All-Call Paging

A Multi-Site Emergency-All-Call page is an emergency page that plays simultaneously throughout multiple sites that are configured in the facilities list. It has the highest priority of all pages.

To make a hands-free Multi-Site Emergency-All-Call page using the touch display:

1 If you would like to use the handset, lift it off the cradle.

2 Touch the **Multi-Site Emerg** button.

3 Talk into the phone's handset or microphone.

4 Hang up the handset or touch the red "hang up" button when finished.

Multi-Site All-Call Paging

A Multi-Site All-Call Page is a non-emergency page that plays simultaneously throughout multiple sites.

To make a hands-free Multi-Site All-Call page:

1 If you would like to use the handset, lift it off the cradle.

2 Touch the **Multi-Site All-Call** button.

3 Talk into the phone's handset or microphone.

4 Hang up the handset or touch the red "hang up" button when finished.

Emergency-All-Call Paging

An Emergency-All-Call page is a high priority page that simultaneously plays throughout the facility. An Emergency-All-Call page has a higher priority than an All-Call or Normal page.

To make a hands-free Emergency-All-Call page:

1 If you would like to use the handset, lift it off the cradle.

2 Touch the **Emerg All-Call** button.

3 Talk into the phone's handset or microphone.

4 Hang up the handset or touch the red "hang up" button when finished.

All-Call Paging

An All-Call page is a non-emergency page that simultaneously plays throughout the facility.

To make a hands-free All-Call page:

1 If you would like to use the handset, lift it off the cradle.

2 Touch the **All-Call** button.

3 Talk into the phone's handset or microphone.

4 Hang up the handset or touch the red "hang up" button when finished.

Zone Paging

You can choose to page only certain areas of the facility, called *zones*. The zones, which are collections of stations, must be created through the Nyquist controller's web-based interface before zone paging from the NQ-ZPMS can occur.

To make a zone page using the zone Line Keys:

1 If you would like to use the handset, lift it off the cradle, then press the **Unfold** line key.

2 Touch the line key for the zone that you want to page.

3 Talk into the phone's handset or microphone.

4 Hang up the handset or touch the red "hang up" button when finished.

Important: If the target zone of a zone page is associated with a message queue, pages placed to that zone will be recorded and queued. If if it not associated with a message queue, the pages will be played in real time. To force a real-time page, you can explicitly place a non-queued page by dialing DTMF code `#{zone}*` (see *"Paging" on page 33*).

Record a Page

You can record a page to be added to a zone queue. The maximum length of time for a recorded page is 60 minutes; if the recording exceeds 60 minutes, it will time out and not be saved. If the recording is silent for 60 seconds, it will time out and not be saved.

Pages in a zone's queue are played in the order that they are placed in the queue. A live page started on a zone that is playing a recorded page will cause the recorded page to be terminated and sent back to the queue. The interrupted message will play again from the beginning of the message when the zone becomes idle. Multi-Site Emergency-All-Call, Multi-Site All-Call, Emergency All-Call, All-Call,

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Alarm, Tone, and Emergency Announcement will also interrupt any queued messages playing in any zones. All re-queued messages will play again from the beginning of the message when the applicable zones become idle.

Selecting **Disable Audio** will cause playback paging of all recorded messages to stop. The messages will resume play from the beginning when audio is re-enabled.

To record a page for page queuing:

1 If you would like to use the handset, lift it off the cradle, then press the **Unfold** line key.

2 Touch the **Record Page** key.

3 Touch the keypad button to display the keypad.

4 Enter the zone number to be paged followed by the pound (#) key.

5 Wait for the tone and then record your message.

6 Hang up when finished.

Making Calls

The steps for making calls depend on whether you are making the call from the display and speaker or from the handset and whether you know the extension that you want to call.

To make a call by dialing the extension number:

1 If you would like to use the handset, lift it off the cradle, then press the **Unfold** line key.

2 Touch the **Dialer** Softkey.

3 Dial the extension.

4 Touch the *call* button (or video button, to place a video call).

5 When finished with the call, either select the *end call* button or hang up the handset.

To make a call using the Network Phone Book:

1 If you would like to use the handset, lift it off the cradle.

2 Touch the **Home** feature key.

3 Touch the **PhoneBook** key.

4 If the PhoneBooks list (second column) is not displayed, touch the **Hide/Show Phonebooks** button (bottom of the first column) to display it.

5 Select the **Stations** phone book.

6 Navigate to the station that you want to call, and then select that station.

7 When finished with the call, either select the *end call* button or hang up the handset.

Calls can be placed to any extension, or to any Nyquist feature using DTMF codes, as described in *"Nyquist DTMF Feature Dialing Codes" on page 27*.

Sending Text Messages Between Phones

Text messages can be sent between Nyquist phones (e.g., NQ-T1100, NQ-ZPMS).

To send a text message to another Nyquist phone:

1   Touch the **Home** feature key.

2   Touch the **Menu** icon, .

3   Touch the **Message** icon.

4   Touch **NEW MESSAGE**.

5   Touch the **To** field and type in the recipient's extension.

6   Touch the **Type message** field and type in the text message.

7   Touch the "send message" arrow icon (to the right of the message) to send the message.

When the NQ-ZPMS receives a new message, it plays a tone, displays a a small message icon on the top left corner of the desktop, and the power LED begins slowly blinking red. To display a new message, either swipe down from the top of the desktop and select **New SMS** or access the **Message** menu as described above.

Changing the Event Schedule

Nyquist allows the setting of bells and announcements to be played at specific times and in specific zones. More than one schedule can be created for a school/site. For example, a school/site may have an early release day on Wednesday and have classes begin and end at different times on that day than on the other days of the week. Based on this example, a Regular Schedule or an Early Release Schedule can be selected for the current day.

The Schedules feature available via the NQ-ZPMS provides a quick way to change the bell schedule for the day. For example, if you normally use an Early Release Schedule for Wednesdays but want to use this schedule for today (which is slated to use the Regular Schedule), you can select the Early Release Schedule through the NQ-ZPMS.

To change today's schedule:

1   If you would like to use the handset, lift it off the cradle, then press the **Unfold** line key.

2   Touch **Schedules**.

3   Touch the schedule that you want for the day. If you have more than one site appearing in the Schedules view, ensure you have selected the schedule for the desired site.

An asterisk (*) appears before the current schedule. Selecting **None** disables the schedule, which also disables scheduled tones, audio, and routines included in the schedule.

4   When prompted, enter the System Password.

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Playing Alarms

You can play a facility alarm from a list of default alarms and those created through the Admin Web UI.

To play (or stop) an alarm:

1 If you would like to use the handset, lift it off the cradle, then press the **Unfold** line key.

2 If an **Alarms** line key has been defined, touch the **Alarms** key. If not, do the following:

   a) Touch the **Contacts** key.

   b) If the PhoneBooks list (second column) is not displayed, touch the **Hide/Show Phonebooks** button (bottom of the first column) to display it.

   c) Select the **Alarms** phone book.

3 To stop an alarm that is already active, select **STOP Alarm**.

4 Navigate to the alarm that you want and select that alarm. The alarm plays continuously until you manually stop it.

5 To end the alarm, touch the *end call* button or hang up the handset.

Playing Tones

Nyquist provides tones that can be used with events, such as bell schedules or announcements. In addition to the default tones, tones can also be created or uploaded via the Admin Web UI.

To play (or stop) a tone:

1 If you would like to use the handset, lift it off the cradle, then press the **Unfold** line key.

2 If a **Tones** line key has been defined, touch the **Tones** key. If not, do the following:

   a) Touch the **Contacts** key.

   b) If the PhoneBooks list (second column) is not displayed, touch the **Hide/Show Phonebooks** button (bottom of the first column) to display it.

   c) Select the **Tones** phone book.

3 To stop a tone that is already active, select **STOP Tone**.

4 Navigate to the tone that you want and select that tone.

5 To end the tone, touch the *end call* button or hang up the handset.

Forwarding Calls

If your phone's station has the appropriate CoS parameter set, you can forward your calls to another Nyquist extension, whether it's a physical station or a Web UI station. You can select to always forward calls, forward calls if you are on another call, or forward calls if they are not answered within a specified number of seconds.

If the NQ-ZPMS remains busy for more than two minutes, an Analog-Call-Switch-and-Speaker or Digital-Call-Switch-and-Speaker caller will be told that the call cannot be completed and to please try again. The call switch will return to the idle state.

Important: The NQ-ZPMS provides two distinct mechanisms for forwarding calls, each with its own advantages and disadvantages. One mechanism is accessed via the NQ-ZPMS–based **Forward** softkey of the Line Keys screen (see *Figure 3, "Line Keys screen," on page 3*), while the other is accessed via the DTMF-based **Call Forwarding** menu item of the **PhoneBook / Features** menu (see *Figure 5, "Network PhoneBook Screen (Features phonebook selected)," on page 5*). The **Forward** softkey mechanism is implemented by the NQ-ZPMS device (and shows a status icon on the screen when active); the **Call Forwarding** menu item is implemented by—and more compatible with—the Nyquist system (but does *not* show a status icon on the screen). If both mechanisms are used simultaneously, the Nyquist-based **Call Forwarding** mechanism (via **PhoneBook / Features**) will take precedence.

NQ-ZPMS–based Call Forward

*To forward calls using the **Forward** softkey (NQ-ZPMS forwarding):*

1   Touch **Forward**.

2   Specify a forwarding number for one or more of the forwarding options (e.g., always forward, busy forward, no answer forward). Note that a forwarding option cannot be enabled unless its corresponding forwarding number has been specified.

3   Enable one or more of the forwarding options:

- *Enable always forward*: forwards all incoming calls to the **Always forward number**.
- *Enable busy forward*: forwards incoming calls to the **Busy forward number** when this station is busy.
- *Enable no answer forward*: forwards incoming calls to the **No answer forward number** when an incoming call has rung for the number of seconds specified in **No ans. fwd wait time (0~120)**.

Caution   Forwarding calls via the NQ-ZPMS–based mechanism requires that *two* of the intercom call licenses be available while the call is being placed, but only one once the call has been answered. If an intercom call license is not available, the caller will hear a message indicating that all circuits are busy. This limitation does not exist when using the Nyquist-based mechanism.

*To disable Call Forwarding using the **Forward** softkey (NQ-ZPMS forwarding):*

1   Touch **Forward**.

2   Disable the forwarding options.

Caution   If you use the Forward menu option and attempt to forward to an extension that is already forwarding to your extension, you will not receive an error, but call forwarding will *not* be activated.

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DTMF-based Call Forward

*To have the Nyquist system forward calls using the PhoneBook's **Call Forwarding** feature:Touch **Contacts**.*

3 If the PhoneBooks list (second column) is not displayed, touch the **Hide/Show Phonebooks** button (bottom of the first column) to display it.

4 Touch **Features**.

5 Touch **Call Forwarding**.

6 Select one of the following from the interactive audio menu:
   1 = Call Forward for Unconditional
   2 = Call Forward on Busy
   3 = Call Forward on No Answer
   4 = Call Forward on Busy and Call Forward on No Answer
   5 = No Call Forwarding

7 When prompted, enter the extension or phone number to which the call is to be forwarded followed by the hash (or pound) sign, #.

The system will provide error messages if it is unable to perform the desired call forwarding.

*To have the Nyquist system stop forwarding calls using the PhoneBook's **Call Forwarding** feature:*

1 Touch **Contacts**.

2 If the PhoneBooks list (second column) is not displayed, touch the **Hide/Show Phonebooks** button (bottom of the first column) to display it.

3 Touch **Features**.

4 Touch **Call Forwarding**.

5 Touch **Dialer**.

6 In response to the interactive audio menu, press **5 (No Call Forwarding)**.

Tip: When calls are being forwarded to another station, voice mail features can be accessed from the destination station by simply calling the source's extension. For example, if station 100 is forwarding to station 200, station 200 can access station 100's voice mail features by calling station 100.

Using the Voice Mail Feature

If your phone's station has the appropriate CoS parameter set, you can view details about, and listen to, voice mail messages and set the code that can be used to retrieve your voice mail messages.

The Power indicator flashes red if you have a new voice mail message.

To listen to voice mail messages:

1 Press the **MWI** (Message Waiting Indicator) key.

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2 If the NQ-ZPMS doesn't automatically initiate voice mail messages, press the call button that is next to your extension.

3 Follow prompts to retrieve messages.

Tip: Voice mail features can also be accessed by calling your own extension.

Recording Announcements

You can record announcements to be played either immediately after they are recorded or at a later date and time.

To record an announcement:

1 If you would like to use the handset, lift it off the cradle, then press the **Unfold** line key.

2 Touch **Announcements**.

3 Touch **Record Announcement (*990)**.

4 Touch **Dialer**.

5 After the tone, record your announcement, and press **#** when finished.

6 Select from the following options:

- Press **1** to accept this recording.
- Press **2** to listen to it.
- Press **3** to re-record your message.

7 Select from the following options:

- Press **1** to save this announcement.
- Press **4** to play this announcement now.
- Press **7** to schedule this announcement.

   If you select 7, enter the 2-digit month, 2-digit day, 4-digit year, and then enter the hour and minutes in 24-hour military time format (HH:MM) for the date and time at which the announcement will play.

8 Follow any additional prompts, such as specifying the destination zone at which the announcement shall be played.

Playing Recorded Calls

If your phone's station has the appropriate CoS parameter set with **Call Recording** enabled, you can playback recorded calls.

To playback recorded calls:

1 If you would like to use the handset, lift it off the cradle, then press the **Unfold** line key.

2   Touch **Contacts**.

3   If the PhoneBooks list (second column) is not displayed, touch the **Hide/Show Phonebooks** button (bottom of the first column) to display it.

4   Touch **Features**.

5   Touch **Playback Recorded Calls**.

6   Touch **Dialer**.

7   Select the type of recorded call that you want to playback. Options are:
   1 = Emergency calls
   2 = Monitored calls
   3 = Urgent calls
   4 = Normal calls
   9 = To hang up

8   Follow any additional prompts or hang up.

Restart Nyquist Server

To restart the Nyquist Server:

1   Touch **Contacts**.

2   If the PhoneBooks list (second column) is not displayed, touch the **Hide/Show Phonebooks** button (bottom of the first column) to display it.

3   Touch **Features**.

4   Touch **Restart Nyquist Server**.

5   Enter the system password.

6   Press the Return button and touch the red "hang up" button.

Note: **Restart Nyquist Server** only restarts the Nyquist application; it does not reboot the server or restart the OS.

Reboot NQ-ZPMS

To restart the NQ-ZPMS:

1   Press the **Home** feature key.

2   Touch the **Phone Settings** feature key, .

3   Scroll to the bottom of the page and select **Reboot**.

4   Touch **OK** to confirm.

Stop Announcement

To stop an announcement if the Announce key is present:

1   Touch the **Announce** button.

2   Use the navigation keys to select **Stop Announcement**.

3   Follow audio prompt.

To stop an announcement if the Announce key is NOT present:

1   Touch **Contacts**.

2   If the PhoneBooks list (second column) is not displayed, touch the **Hide/Show Phonebooks** button (bottom of the first column) to display it.

3   Select **Features**.

4   Select **Stop Announcement**.

5   Follow audio prompt.

Stop Scheduled Audio

To stop scheduled audio:

1   Touch **Contacts**.

2   If the PhoneBooks list (second column) is not displayed, touch the **Hide/Show Phonebooks** button (bottom of the first column) to display it.

3   Select **Features**.

4   Select **Stop Scheduled Audio**.

Using Audio Distribution

Note: The station must have the **Audio Distribution** CoS enabled in order for the **Audio Distribution** menu to display on the NQ-ZPMS.

Audio Distribution can be started and stopped using the Audio Distribution menu.

To start audio distribution:

1   Touch **Audio Distribution**.

2   From the menu, select the audio distribution that you want to start.

After an audio distribution is started, the entry displayed in the menu will be prefixed with **(P)** to indicate that it's playing.

To stop audio distribution:

1   Touch **Audio Distribution**.

2   From the menu, select the audio distribution that you want to stop; it must be prefixed with **(P)**.

To stop ALL audio distributions:

1   Touch **Audio Distribution**.

2   From the menu, select **Stop ALL Audio Distribution**.

The audio distribution entries listed in the **Audio Distribution** menu use the following suffixes depending on the zones/stations that are defined as targets for playing the audio:

- **[All Speakers]**: Indicates play to all speakers.
- **[Zone]**: Indicates play to a single zone where Zone is replaced with zone number.
- **[Zone, Zone...]**: Indicates play to two or more zones where Zone is replaced with zone number.
- **[Zone+]**: Indicates play to a single zone plus one or more specific stations. (Stations are not listed.)
- **[Zone, Zone...+]**: Indicates play to two or more zones where Zone is replaced with zone number, plus one or more specific stations. (Stations are not listed.)

Launching Routines

Note: The ability to manually launch routines is determined by the CoS configuration assigned by your system administrator for your NQ-ZPMS.

You can manually launch a routine that has **Allow DTMF** enabled from an NQ-ZPMS by doing one of the following:

- Dial `*94{Routine-DTMF-code}`.

Tip: If you use `*94{routine-DTMF-code}` to start a routine, you can optionally pass parameters to the routine using the following DTMF syntax: `*94{routine-DTMF-code}*{parameter1}*{parameter2}`

- Select the **Routines** menu from the NQ-ZPMS and then select the routine that you want to launch.

Tip: To display a list of routine DTMF codes, select the **Routines** menu. In the displayed list of routines, the number displayed in parentheses after the routine name is the routine DTMF code for the routine.

If you disconnect the call during a routine, the routine continues until finished. If the routine includes **Pause** actions, the call will not disconnect until all **Pause** actions have been executed.

A routine launched from the NQ-ZPMS can end with any of the following page commands, provided the station has the appropriate CoS enabled:

- All-Call
- Emergency-All-Call
- Facility-Page
- Mutli-Site-All-Call

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- Multi-Site-Emergency-All-Call
- Zone-Page

Customizing Line Keys

Line keys are the soft keys that appear on the display window (see *Figure 2, "Desktop Display screen," on page 2*). Once the NQ-ZPMS device has been added as a station, the placement and labels of line keys can be customized. For information regarding customizing line keys, refer to the "*Customizing an NQ-ZPMS IP Phone – Color Touch Display*" section in the *Nyquist System Administrator Guide*.

To customize a line key that is set to type "Reserved":

1   On the phone's display window, long press the key that you want to customize.

2   For **Type**, select **Memory Key**.

3   For **Subtype**, select **BLF/DTMF.**

4   For **Value**, enter the DMTF code sequence that is to be dialed on the Nyquist system when the soft key is pressed. For example, to play a fire alarm, you would enter *91 followed by the DTMF code of the alarm that you want to play. For a list of DMTF codes, see *"Nyquist DTMF Feature Dialing Codes" on page 27*.

5   For **Title**, enter a label that will appear on the display window for this key. The label should describe what occurs when you select the line key (for example, Fire Alarm).

6   For **Line**, select the line that you are customizing.

By default, **SIP1** is associated with the Nyquist system and would be the appropriate choice.

7   Press **Save** (the check mark button).

To remove programming from a line key:

1   On the phone's display window, long press the key.

2   For the **Type**, select **None**.

3   Press **Save** (checkmark button).

Viewing NWS Alerts on the NQ-ZPMS

National Weather Service (NWS) alerts can be viewed on the NQ-ZPMS display. To enable this, use the Nyquist server to customize one of this station's Line Keys with a **Type** of **NWS Alerts.** This will create a Line Key on the NQ-ZPMS (i.e., the **NWS Alerts** button on the Line Keys screen) that can be used to view pending NWS alert messages.

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To view the text of the active National Weather Service Alerts, press the **NWS Alerts** Line Key.

If no NWS alerts are active, the display will show "No alerts":
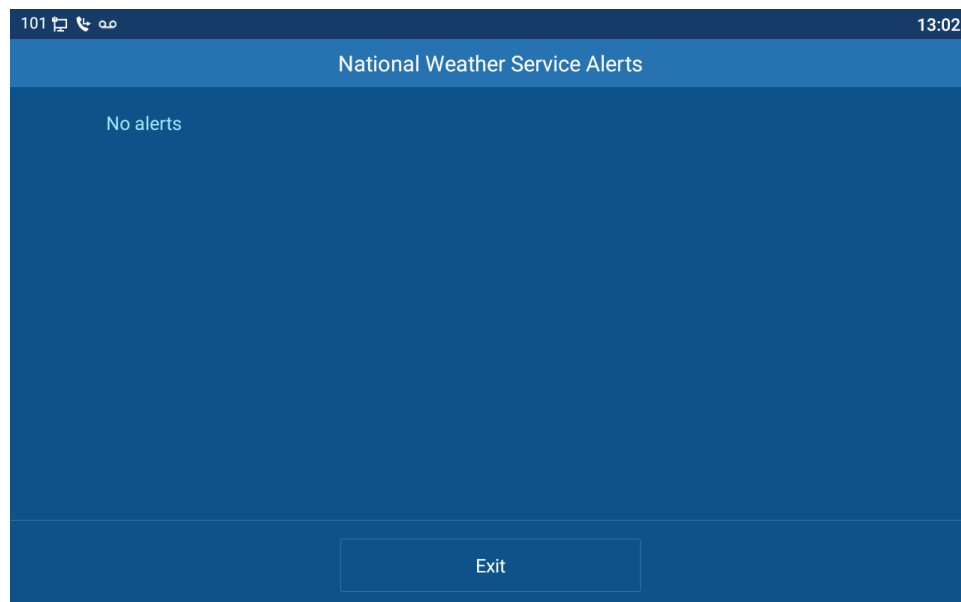
Figure 6. NWS with No Alerts

When NWS alerts are active, a scrollable text window will display the text of active alerts:
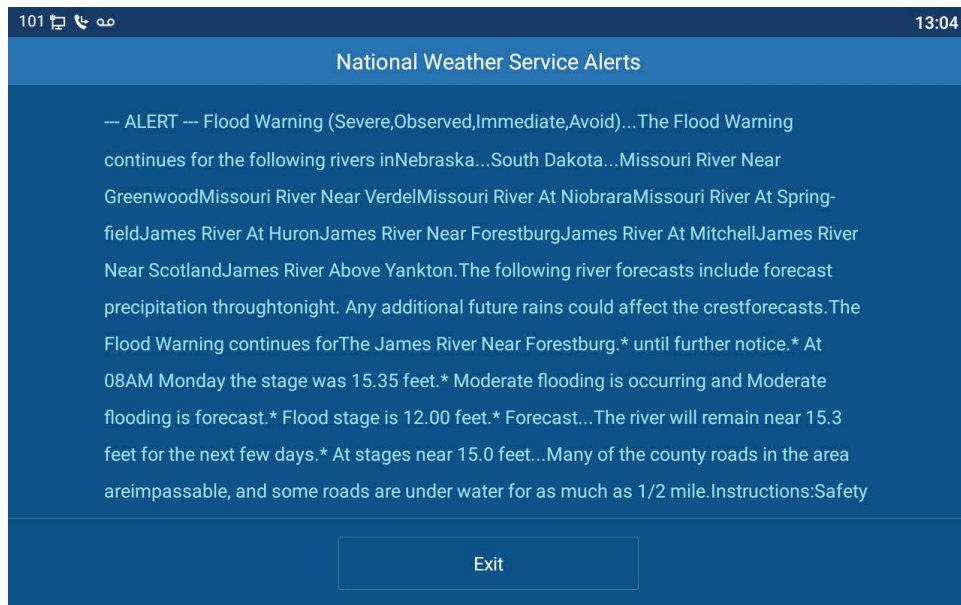
Figure 7. NWS with scrollable window

Touch and drag the screen to advance through the alert text pages. Press the Exit button to go back to the phone's main screen. While displaying the alerts, if there is no scrolling activity for 45 seconds, the phone will automatically return to the idle screen. If a call rings on the phone while the alerts are being displayed, the phone will automatically switch to the incoming call display.

Important:	The alerts display is limited to 2000 characters. If the active alerts contain more than 2000 characters of text, "-TRUNCATED" will be appended to the end of the alert text to indicate that the remaining alert text has been truncated. To reduce the number of characters taken up by alerts, consider excluding the INCLUDE_INSTRUCTIONS $alerts() parameter.

Access the Nyquist Web Interface

One very powerful feature of the NQ-ZPMS is the ability to access the Nyquist web interface (and other websites) directly from the phone by using the Chrome browser.

To access the Nyquist web interface from the NQ-ZPMS:

1 Press the **Home** feature key.

2 Touch the **Chrome** feature key.

3 Enter the Nyquist server's IP address.

4 If "*Your connection is not private*" is displayed, press **Advanced**, then press "**Proceed to <address> (unsafe)**".

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Important:	Your connection is securely encrypted. The Chrome browser considers this web page unsafe because the lifetime of its Nyquist server certificate is longer than one year, which is now considered unsafe by Google.

5   Enter the Nyquist web interface username and password.

Note: It is possible that you may need to restart the browser and/or NQ-ZPMS before the Nyquist certificate is accepted without displaying the warning page.

Tip:	You can also access the Nyquist *Zone Control* web page using the Chrome browser, which can be used to customize volumes and audio distributions for your Nyquist system. This can be accessed by entering the Nyquist server's IP address followed by `/zone-control` (e.g., `http://192.168.90.10/zone-control`). See the Nyquist *System Administrator Guide* for details.

Appendix A: Nyquist DTMF Feature Dialing Codes

Most features of the Nyquist system can be accessed via DTMF dial codes entered from a station's keypad. The availability of a particular feature dial code is determined and restricted by the DTMF code's required CoS and the station's CoS assignments.

For a list of alternatives to some of the DTMF codes listed here (e.g., codes that do not use the pound/hashtag symbol, #), see "Alternate Dialing Codes" on page 38.

Note: DTMF codes marked with [a] support terminating the DTMF code with a # symbol to avoid the 5-second delay while the DISA application waits for additional digits to be entered.

Alarm/Tone Activation

Description	DTMF Code	Required CoS
Start Alarm specified by {DTMF-code}	`*91{DTMF-code}`[a]	Activate Alarm Signals
	`0000091` *Note:* You will be prompted to enter the Alarm's DTMF code.	Activate Alarm Signals
Start Tone specified by {DTMF-code}, play to {zone} *Note:* *{zone} is optional.	`*96{DTMF-code}*{zone}`[a]	Manually Activate Tone Signals
	`0000096{DTMF-code}*{zone}`	Manually Activate Tone Signals
Start Tone specified by {DTMF-code}	`*96{DTMF-code}`	Manually Activate Tone Signals
Prompts user to enter a tone number and tone parameters (e.g., times to play) and starts the tone at all Time-type zones	`*96`	Manually Activate Tone Signals

a. The DTMF code can be terminated with a # symbol to avoid the 5-second delay while the DISA application waits for additional digits to be entered.

Announcements

Description	DTMF Code	Required CoS
Start Announcement specified by {DTMF-code} to station's configured "Announcement Zone" *Note:* If "Announcement Zone" is not configured, the caller will be prompted to enter a zone number.	`*92{DTMF-code}`	All-Call Page
	`0000092{DTMF-code}`	All-Call Page
Start Announcement specified by {DTMF-code}, play to {zone}	`*92{DTMF-code}*{zone}`[a]	Zone Paging
	`0000092{DTMF-code}*{zone}`	Zone Paging
Start Announcement specified by {DTMF-code} to all Facilities (including local facility)	`*97{DTMF-code}#0`	Multi-Site Paging Inter-Facility Call/Page
Start Announcement specified by {DTMF-code} to Facility specified by {facility-page-number}	`*97{DTMF-code}#{facility-page-number}`	Inter-Facility Call/Page
Start Announcement specified by {DTMF-code} to dialed Facilities *Note:* Use "0" for {facility-page-number} to include the local facility. *Note:* The number of dialed digits cannot exceed 70 digits.	`*97{DTMF-code}#{facility-page-number}*{facility-page-number}`	Multi-Site Paging Inter-Facility Call/Page
Stop Announcement currently playing to {zone-number}	`*93{zone-number}`[a]	(none)
	`0000093{zone-number}`	(none)

Calling

Description	DTMF Code	Required CoS
Call {extension} speaker (intercom, auto-answer)	`{extension}`	Call Any Station
Call {extension} ringer (telephonic, ringing)	`*{extension}`	Call Any Station
Join conversation at {extension}	`*#{extension}`	Join Conversation
Call {extension} at {facility-page-number}	`##*{facility-page-number}*{extension}`	Inter-Facility Call/Page
Place long distance call with area code (AAA = Area code, NNNNNNN = number)	`981AAANNNNNNN`	Outside Access rights
Place local ten-digit call with area code	`98AAANNNNNNN`	Outside Access rights
Place local seven-digit call	`98NNNNNNN`	Outside Access rights
Place 911 emergency call *Note:* Based on Station's **911 Route** setting, call may be directed to Admin Station, PSTN-based 911, or denied.	`911`	(none)
	`98911`	(none)
Place Emergency call to designated Admin station	`****`	(none)
Place call to PBX system (via SIP Trunk) by dialing {DTMF-codes} *Note:* {DTMF-codes} can be as simple as an extension number on the attached PBX system.	`***{DTMF-codes}`	Outside Access rights

Call Forwarding

Description	DTMF Code	Required CoS
Call Forwarding Menu	970[a]	Call Forwarding
All-Calls (CFALL)	971{extension}	Call Forwarding
When Busy (CFBS)	972{extension}	Call Forwarding
When No Answer (CFNA)	973{extension}	Call Forwarding
When Busy or No Answer (CNBN)	974{extension}	Call Forwarding
Cancel Call Forwarding	975	Call Forwarding
Call Forwarding Status (Caller only)	976	Call Forwarding
Call Forwarding Status (All users)	977	Call Forwarding

Call Parking/Call Pickup

Description	DTMF Code	Required CoS
Park call (during call)	#72	(none)
Note: To pick up a parked call, dial the parked call's extension (by default, extensions 21-29) that was provided when the call was parked using #72. The parking lot extensions can be changed at the Admin Web UI through **System Parameters**.		
Call pickup {extension} when ringing	7*{extension}[a]	Remote Pickup

Call Transfer

Description	DTMF Code	Required CoS
Blind transfer (during call)	`#1{extension}`	Call Transfer
Attended transfer (during call)	`*1{extension}`	Call Transfer
Complete attended transfer, dropping out of call	`*2`	Call Transfer
Complete attended transfer, but stay in the call	`*3`[a]	Call Transfer
Swap to the other party (during attended transfer)	`*4`	Call Transfer
Transfer (drop) call from Speaker to associated Phone	`*3`[a]	Call Transfer
Transfer (drop) call from Speaker to associated Phone	`####`	Call Transfer
Transfer call from Phone to associated Speaker	`#1{speaker-extension}`	Call Transfer

Conferencing

Description	DTMF Code	Required CoS
Create/Enter Dynamic Conference {number}	`**{number}`	Conference Admin
		Conference User
Note: If the conference owner enters 0000 as the password, the conference will be deleted. If an Admin station user type enters 0000 as the password but is not the conference owner, the user will be prompted for the system password. If the correct system password is entered, the conference will be deleted.		
Start system playback of list of created conferences that includes the conference number and the extension that created the conference	`**0`	(none)

Monitoring/Recording

Description	DTMF Code	Required CoS
Monitor call or location at {extension} *Note:* Spy Mode monitoring cannot be used on a station that has been set to Privacy Mode.	978{extension}[a]	Monitor Calls/Locations
Enable "spy mode" (MUTE) during call monitoring	4	(none)
Enable "whisper mode" during call monitoring	5	(none)
Enable "barge mode" during call monitoring	6	(none)
Record Message (Announcement)	*990[a]	All-Call Paging
Note: When you record an announcement by dialing *990 or by selecting **Record Announcement** on the Admin phone's **Announce** menu, the initial DTMF Code for the recorded and saved announcement will be set to the announcement's row ID. You can change the DTMF Code after the announcement is saved by editing the announcement in the web interface **Announcements** view. The saved announcement has **Play to Zone** set to blank (no zone selected). This means that when you play an announcement via an IP phone **Announcement** menu selection, you will be asked to enter a zone number (where 0 = All Speakers). You can define a permanent zone number for the saved announcement by updating **Play to Zone** after the recorded announcement has been saved.		
Playback recorded calls **MENU**: 1–Emergency, 2–Monitored, 3–Urgent, 4–Standard	999	Manage Recordings
Start/Stop recording (DTMF used during a call)	*3	Record Calls

Paging

Note: The "##" prefix is used to indicate multi-facility paging operations.

Description	DTMF Code	Required CoS
Multi-Site Emergency All-Call Page	##0911[a]	Emergency All-Call Multi-Site Paging
Multi-Site All Call Page	##0	All-Call Paging Multi-Site Paging
Emergency All-Call Page	#0911[a]	Emergency All-Call
Multi-Facility Emergency All-Call Page	##0912{facility-page-number}*{facility-page-number}...	Emergency All-Call Multi-Site Paging
Emergency All-Call Page	951	Emergency All-Call
All-Call Page	#0[a]	All-Call Paging
	#00	All-Call Paging
	0000000	All-Call Paging
Real-time All-Call Page that belongs to a queue	#0*[a]	All-Call Paging
	0000001[a]	All-Call Paging
Page to {zone}	#{zone}[a]	Zone Paging
	0000099{zone}[a]	Zone Paging
Real-time Page to {zone} that belongs to a queue	#{zone}*[a]	Zone Paging

Paging (Continued)

Note: The "##" prefix is used to indicate multi-facility paging operations.

Description	DTMF Code	Required CoS
All-Call Page to {facility-page-number}	`##{facility-page-number}`	Inter-Facility Call/Page
Multi-Facility All-Call Page	`##{facility-page-number}*{facility-page-number}...`	Inter-Facility Call/Page
Zone Page to {zone-number} at {facility-page-number}	`##{facility-page-number}#{zone-number}`	Inter-Facility Call/Page
Real-time page to {zone-number} that belongs to a queue at {facility-page-number}	`##{facility-page-number}#{zone-number}*`	Inter-Facility Call/Page
Record page; system will prompt for Zone Number	`*991`	Zone Paging
Record page for {zone-number}	`*991*{zone-number}`[a]	Zone Paging
Cancel Recorded Page *Note:* Only works if made from the same extension that created the recorded page.	`*992`	Zone Paging
Cancel Recorded Page for {zone-number} *Note:* Only works if made from the same extension that created the recorded page.	`*992*{zone-number}`[a]	Zone Paging

Voicemail

Description	DTMF Code	Required CoS
Voicemail for current caller	900	Voicemail
Voicemail for specified {extension}	`904{extension}`	Voicemail

Voicemail (Continued)

Description	DTMF Code	Required CoS
Leave voicemail for specified {extension}	`904{extension}*`	Voicemail

Walking CoS

Description	DTMF Code	Required CoS
Current IP phone's extension becomes {extension} *Note:* If **Auth Code** is set to 0000 in the Admin Web UI's **System Parameters**, this feature is disabled.	`3*{auth-code}*{extension}`	Walking Class of Service

Dial Codes Used for Simulating Calls to Admin Station from Station Call Switches

Description	DTMF Code	Required CoS
Normal call to admin *Note:* During the Check-In process, a Normal call starts the check-in process for a station.	`0`	(none)
Emergency call to admin	`*0`	(none)
Urgent call to admin	`*00`	(none)
Outside line calling in (uses night-ring logic)	`*000`	(none)

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Routines

Description	DTMF Code	Required CoS
Execute Routine with {routine-DTMF-code} *Note:* Only routines with **Allow DTMF** can be executed from the Admin Phone.	`*94{routine-DTMF-code}`[a]	Execute Routines
	`0000094{routine-DTMF-code}`	Execute Routines
Execute Routine with {routine-DTMF-code} specifying values for parameters $cmdParam1 and $cmdParam2. *Note:* Only routines with **Allow DTMF** can be executed from the Admin Phone.	`*94{routine-DTMF-code}*{parameter1}*{parameter2}`	Execute Routine
	`0000094{routine-DTMF-code}*{parameter1}*{parameter2}`	Execute Routine
Stop Routine with {routine-DTMF-code} *Note:* If the **Allow DTMF** parameter for the specified routine is set to **No**, you will be prompted to enter the system password.	`*95{routine-DTMF-code}`[a]	Execute Routines
	`0000095{routine-DTMF-code}`	Execute Routines

Audio Distribution

Description	DTMF Code	Required CoS
Start Audio Distribution where {DTMF-code} is the DTMF code for the desired Audio Distribution	`987*{DTMF-code}`[a]	Audio Distribution
	`00000987{DTMF-code}`	Audio Distribution
Stop Audio Distribution where {DTMF-code} is the DTMF code for the desired Audio Distribution	`980*{DTMF-code}`[a]	Audio Distribution
	`00000980{DTMF-code}`	Audio Distribution
Stop ALL Scheduled Audio	`920`	Audio Distribution

Miscellaneous Dial Codes

Description	DTMF Code	Required CoS
Restart Nyquist system server *Note:* User is prompted for System Password.	#*349	(none)
Toggle Audio Distribution to associated speaker	*9[a]	(none)
Disable Audio	0000097[a]	Disable Audio
Enable Audio	0000098[a]	Enable Audio
Stop Scheduled Audio	920	Audio Distribution
Close {contact-number} on I/O Controller {extension} (For example, dialing 942#120#1 closes contact number 1 on I/O Controller 120.)	942#{extension}#{contact-number}	Manage Output Contacts
Open {contact-number} on I/O Controller {extension} *Note:* For example, dialing 943#120#1 opens contact number 1 on I/O Controller 120.	943#{extension}#{contact-number}	Manage Output Contacts
Request a callback during a call	*7	Call Any Station
Cancel a callback request during a call	*8	Call Any Station
Request a callback from a specific extension	*7{extension}[a]	Call Any Station
Cancel a callback request from a specific extension	*8{extension}[a]	Call Any Station

Miscellaneous Dial Codes (Continued)

Description	DTMF Code	Required CoS
Start Nyquist Features on Remote Facilities	`##*{facility-page-number}*{feature-DTMF-digits}`	Inter-Facility Features
Examples:		(none)
Start Announcement 1 on Facility 1	`##*1*00000921`	(none)
Start Audio Distribution 6 on Facility 5	`##*5*000009876`	(none)
Execute Routine 5 on Facility 10	`##*10*00000945`	(none)

Alternate Dialing Codes

If a PBX is not able to pass through the pound sign (or hashtag), #, in the dialing digits, alternative dialing codes may be used to replace Nyquist extensions that start with #.

Nyquist Feature	Dial Code	Alternative Dial Code
All-Call Page	`#0`	`0000000`
Emergency All-Call Page	`#0911`	`951`
Zone Page	`#{zone}`	`0000099{zone}`
Start Alarm	`*91{DTMF-code}`[a]	`0000091{DTMF-code}`
Start Tone to zone	`*96{DTMF-code}*{zone}`[a]	`0000096{DTMF-code}*{zone}`
Start Tone to all Time-type zones	`*96{DTMF-code}`	`0000096{DTMF-code}`
Start Announcement	`*92{DTMF-code}`	`0000092{DTMF-code}`
Start Announcement to zone	`*92{DTMF-code}*{zone}`[a]	`0000092{DTMF-code}*{zone}`

Nyquist Feature	Dial Code	Alternative Dial Code
Stop Announcement	*93{zone}[a]	0000093{zone}
Start Audio Distribution	987*{DTMF-code}	00000987{DTMF-code}
Stop Audio Distribution	980*{DTMF-code}	00000980{DTMF-code}
Start Routine	*94{DTMF-code}	0000094{DTMF-code}
Start Routine with parameters	*94{DTMF-code}*{parameter1}*{parameter2}	0000094{DTMF-code}*{parameter1}*{parameter2}
Stop Routine	*95{DTMF-code}	0000095{DTMF-code}
Restart Nyquist system server *Note:* User is prompted for System Password.	#*349	00000349