



# **WLAN IP Handset 2210/2211/2212 User Guide**

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## **BCM**

### **Business Communications Manager**

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# Chapter 1

## Getting started

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This document is a global document. Contact your system supplier or your Nortel representative to verify that the hardware and software described are supported in your area.

This section contains information on the following topics:

- [“About this guide” on page 7](#)
- [“Audience” on page 7](#)
- [“Symbols and text conventions” on page 8](#)
- [“How to get Help” on page 10](#)

### About this guide

This document describes the features and functions of the WLAN IP Handset 2210, 2211, and 2212 phones.

### Audience

This guide is intended for installers and users of WLAN IP Handset 2210, 2211, and 2212 phones., as well as for individuals responsible for configuring, maintaining, and troubleshooting the WLAN IP Handset 2210, 2211, and 2212 phones.

## Symbols and text conventions

These symbols are used to highlight critical information for the BCM system:



**Caution:** Alerts you to conditions where you can damage the equipment.

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**Danger:** Alerts you to conditions where you can get an electrical shock.

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**Warning:** Alerts you to conditions where you can cause the system to fail or work improperly.

---



**Note:** Alerts you to important information.

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**Tip:** Alerts you to additional information that can help you perform a task.

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**Security note:** Indicates a point of system security where a default should be changed, or where the administrator needs to make a decision about the level of security required for the system.

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**Warning:** Alerts you to ground yourself with an antistatic grounding strap before performing the maintenance procedure.

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**Warning:** Alerts you to remove the BCM main unit and expansion unit power cords from the ac outlet before performing any maintenance procedure.

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These conventions and symbols are used to represent the Business Series Terminal display and dialpad.

Convention	Example	Used for
Word in a special font (shown in the top line of the display)	<b>Pswd:</b>	Command line prompts on display telephones.
Underlined word in capital letters (shown in the bottom line of a two line display telephone)	<u>PLAY</u>	Displaybutton option. Available on two line display telephones. Press the button directly below the option on the display to proceed.
Dialpad buttons	#	Buttons you press on the dialpad to select a particular option.

These text conventions are used in this guide to indicate the information described:

Convention	Description
<b>bold Courier text</b>	Indicates command names and options and text that you need to enter. Example: Use the <b>info</b> command. Example: Enter <b>show ip {alerts   routes}</b> .
<i>italic text</i>	Indicates book titles
plain Courier text	Indicates command syntax and system output (for example, prompts and system messages). Example: Set Trap Monitor Filters
<b>FEATURE HOLD RELEASE</b>	Indicates that you press the button with the coordinating icon on whichever set you are using.
separator ( > )	Shows menu paths. Example: Protocols > IP identifies the IP option on the Protocols menu.

## How to get Help

This section explains how to get help for Nortel products and services.

### Getting Help from the Nortel Web site

The best source of support for Nortel products is the Nortel Support Web site:

<http://www.nortel.com/support>

This site enables customers to:

- download software and related tools
- download technical documents, release notes, and product bulletins
- sign up for automatic notification of new software and documentation
- search the Support Web site and Nortel Knowledge Base
- open and manage technical support cases

### Getting Help over the phone from a Nortel Solutions Center

If you have a Nortel support contract and cannot find the information you require on the Nortel Support Web site, you can get help over the phone from a Nortel Solutions Center.

In North America, call 1-800-4NORTEL (1-800-466-7865).

Outside North America, go to the Web site below and look up the phone number that applies in your region:

<http://www.nortel.com/callus>

When you speak to the phone agent, you can reference an Express Routing Code (ERC) to more quickly route your call to the appropriate support specialist. To locate the ERC for your product or service, go to:

<http://www.nortel.com/erc>

### Getting Help through a Nortel distributor or reseller

If you purchased a service contract for your Nortel product from a distributor or authorized reseller, you can contact the technical support staff for that distributor or reseller.

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# Chapter 2

## WLAN Handsets overview

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The Nortel WLAN Handset 2210, WLAN Handset 2211, and the WLAN Handset 2212 for BCM are fully functional wireless handsets specifically designed for the busy office environment.

In this user guide, the WLAN Handset 2210, WLAN Handset 2211, and WLAN Handset 2212 are referred to generically as WLAN Handset.

---

### IMPORTANT!

#### User must end every call

The user must end every call, by pressing the **Power Off/End Call** key, to release system resources and allow the WLAN Handset to function properly. If this is not done, it will result in the ringer not ringing and you might miss an important call.

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### IMPORTANT!

The WLAN Handset must be fully charged before initial use. See [“Battery packs” on page 52](#).

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#### Warning:

Follow standard acceptance procedures before operating the WLAN Handset near life-support systems.

To minimize risk of interference, pacemaker users should not carry the WLAN Handset next to the pacemaker.

Avoid placing the WLAN Handset near small metallic objects. The WLAN Handset earpiece attracts magnetic objects.

The WLAN Handset produces noise noticeable to hearing aid users. Use a headset compatible with hearing aids.

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.

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#### CAUTION

**Loud noise environment:** The WLAN Handset has been designed to produce optimal voice quality. However, when used in extremely loud noise environments (for example, close to working heavy machinery), users may experience degradation in call quality performance due to echo. Avoid using the WLAN Handset when traversing these types of environments.

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This guide contains information about:

- “WLAN Handset buttons and keys” on page 12
- “WLAN Handset display” on page 14
- “WLAN handset states” on page 17
- “Setting up the WLAN Handset” on page 18
- “Feature and function keys” on page 31
- “Basic call features” on page 35

The following figure shows the WLAN Handset 2210, WLAN Handset 2211, and WLAN Handset 2212.



**Note:** The WLAN Handset 2210 and WLAN Handset 2211 are shown in the desktop charger. There is no desktop charger for the WLAN Handset 2212.

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**Figure 1** WLAN Handset 2210, WLAN Handset 2211, and WLAN Handset 2212



## WLAN Handset buttons and keys

Figure 2 on page 13 shows the WLAN Handset 2210, WLAN Handset 2211, and WLAN Handset 2212 buttons and keys.

**Figure 2** WLAN Handset 2210, WLAN Handset 2211, and WLAN Handset 2212 buttons and keys

The following table describes the WLAN Handset buttons and keys.

**Table 1** WLAN Handset buttons, keys, and descriptions (Sheet 1 of 2)

	Button/key	Description
<b>A</b>		Power On/Start Call key Turns on the handset. This key also affects some of the states of the handset. See <a href="#">“WLAN handset states”</a> on page 17.
<b>B</b>		Power Off/End Call key Ends an active call and turns off the handset. The user must end every call to release system resources and allow the handset to function properly.
<b>C</b>		Feature and Display soft keys The first of the four soft keys is the Feature soft key, which starts or ends a feature. The next three soft keys are Display keys, which show feature options.
<b>D</b>		Menu key Displays the full description of the Display soft keys abbreviations and accesses the handset features.
<b>E</b>		Function key Accesses handset functions when in active (idle) state. The <b>Function</b> key also provides access to the User Option menu in the standby state.
<b>F</b>		Line key Accesses the Feature menu. For more information on Feature menu. See <a href="#">“Feature menu—LINE key”</a> on page 32.

**Table 1** WLAN Handset buttons, keys, and descriptions (Sheet 2 of 2)

	Button/key	Description
		Up, Down, and Select buttons Enables you to navigate and activate the various menu options. Adjusts the speaker and ringer volume.
		Push-to-Talk button Push-to-Talk is available on the WLAN Handset 2211 only. Activates the Push-to-Talk feature on the WLAN Handset 2211.
		Left arrow and Star button Enables scrolling to the left for menu navigation.
		Right arrow and Pound button Enables scrolling to the right for menu navigation.

## Scrolling

Scrolling up, down, left and right are performed as shown in [Table 1](#).

**Table 1** Scrolling functions

To scroll:	Use:
Up	Volume Up button
Down	Volume Down button
Left	
Right	

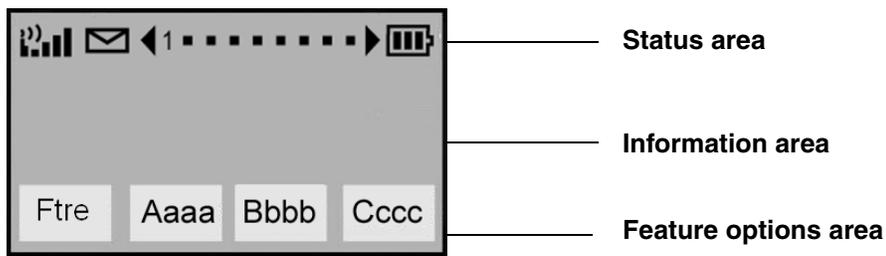
## WLAN Handset display

There are three areas to the WLAN Handset display:

- Status area
- Information area
- Feature options area

The following figure shows an example of the WLAN Handset display.

**Figure 3** WLAN Handset display



## Status area

The status area displays the handset status. It can include:

- status indicators (see the table below)
- left and right arrows
- a series of dots representing the line keys, which change to a number when active

The following table describes the status indicators on your WLAN Handset.

**Table 2** Status indicators

	These symbols give a visual indication (from strong to weak) of the signal strength to the handset.
No Service	You are outside the coverage area and cannot receive or place calls. The out-of-service tone plays. Return to the coverage area to re-establish the connection. <b>Note:</b> The <b>No Service</b> status indicator displays in the information area of the handset display.
	These symbols give a visual indication of the Battery charge. The  indicates that the battery is fully charged while the  indicates that the charge is low.
	Your battery pack charge is very low. An audible beep also sounds. Replace your battery pack within two minutes.
	You have a new voicemail message.
	Your handset is downloading a new firmware file. You will be unable to make or receive calls until the download is complete. <i>Do not power off the handset until the download icon disappears.</i>
Melody	A melody is played when the WLAN Handset is turned on for the first time following a completed charge.
In Service Tone	When the handset completes registration with the Call Server, it plays the in-service tone.
Line Indicator	The Line Indicator area displays the line currently in use. Any lines which are not idle or active (for example, if the line is on hold or forwarded) will have a plus sign (+) sign in front of the entry for that line.
Right/Up and Left/Down Arrows	These icons, on either side of the Line Indicator, are used in the in-call menus to indicate “more items below or left” and “more items above or right”.

## Information area

The Information area shows:

- the extension number of the handset
- a line for general information
- features and call information when the handset is in use

## Feature options area

When a feature is activated, or when you are on an active call, the Feature options area shows you the action you must take to proceed.

For example: **Passwd**. This means you must enter your mailbox password.

The Feature options area shows the label for the **Feature** soft key and for the three display soft keys. These button labels appear directly above the Feature and display soft keys, and to the right of the **Feature** label on the display. These button labels vary, depending on the feature in use.

## WLAN handset states

The WLAN Handset can be in one of the states described in the following table.

---

### IMPORTANT!

#### User MUST end every call

The user must end every call, by pressing the **Power Off/End Call** key, to release system resources and allow the WLAN Handset to function properly.

If this is not done, it will result in the ringer not ringing and you might miss an important call.

---

**Table 3** States of the WLAN Handset

State	Description
Power off	The handset is turned off. It is not registered with the Call Server. Normally the handset enters the power-off state when the user presses <b>Power Off/End Call</b> for approximately two seconds when the handset is in the standby state. The batteries can be recharged in the power-off state.
Standby	This is the normal state when the handset is online but inactive. In the standby state, the handset can receive calls and access the User Option menu. To perform other operations, the handset must be active (off-hook). The standby state uses less power than the active (idle) state. The batteries can be recharged in the standby state. When the handset is in the standby state, the programmed extension number is shown in the display area.
Active (off-hook)	This is equivalent to a regular telephone being off-hook. The handset goes to the active (off-hook) state by pressing <b>Power On/Start Call</b> when the handset is in the standby or active (idle) states. When in this state, the handset uses a soft ring.
Active (idle)	This is equivalent to a regular telephone being idle. The active (idle) state is reached in two ways: An incoming call in the Standby state causes the handset to go to the active (idle) state and begin ringing. The user presses <b>FCN</b> and <b>3</b> when the handset is in the active (off-hook) state to access the function menu. In this state, the handset does not ring when a call comes in. In the active (idle) state, the handset and access point exchange a small packet approximately once every 15 milliseconds. This increases the power consumption and consumes bandwidth, particularly for the RF portion of the link. Therefore, the handset is not normally left in the active (idle) state except for special situations.

**Table 3** States of the WLAN Handset

State	Description
Active (on-hook)	<p>This state is entered when the handset is in standby state and the user presses the <b>Menu</b> key. The handset appears to be on-hook from the Call Server point of view, and loud ringing will occur (when required). The handset display is active and the <b>Menu</b>, <b>FCN</b> and <b>Line</b> menus can be accessed. The user returns to the standby state by pressing the <b>Power Off/End Call</b> key. If no keys are pressed for a period of 10 seconds, the state times out and the handset returns to the standby state. Pressing the <b>Power Off/End Call</b> key in any of the menus will exit the menu. Pressing the <b>Power Off/End Call</b> key again will return the handset to standby state.</p> <p>If the user selects any menu item or presses a soft key, the handset changes into the active (off-hook) state, the timeout condition is removed and the handset will use a soft ring.</p>
Error	<p>The handset enters the error state when it loses the signal from the access point. If the handset regains the signal within approximately 20 seconds, it returns to the state it just left. If the handset is out of range for longer than 20 seconds, the handset restarts and returns to the standby state.</p> <p>For more information on error messages, see <a href="#">“Display messages” on page 44</a>.</p>
Active call	<p>The handset enters the active call state when a user is in an active conversation. To enter this state, the user either makes a call or answers an incoming call. While in this state, the handset will use a soft ring to alert the user to another call. The user leaves this state when the call is completed by pressing the <b>Power Off/End Call</b> key or if an incoming call is ended before the user answers it.</p>
Push-to-Talk (WLAN Handset 2211 only)	<p>The push-to-talk state begins with the first push-to-talk transmission and ends when there has been no two-way radio traffic on the channel for 10 seconds.</p> <p>While in the push-to-talk state, it is not possible to use the keypad for any other functions. However, it is possible to place and receive telephone calls.</p>

## Setting up the WLAN Handset

This section describes the following initial setup options for your WLAN Handset:

- [“To select the Keypad Autolock” on page 19](#)
- [“Select the Language” on page 19](#)
- [“Ring Options” on page 20](#)
- [“Phone Options” on page 24](#)
- [“Configure push-to-talk” on page 26](#)
- [“Adjust speaker volume” on page 27](#)
- [“Silence the ringer” on page 27](#)
- [“Lock and unlock the keypad” on page 28](#)

## To select the Keypad Autolock

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Phone Options**.
- 3 Press the **Select** button (or **OK**) to select **Phone Options**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Keypad Autolock**.
- 5 Press the **Select** button (or **OK**) to select **Keypad Autolock**.
- 6 Press the **Up** and **Down** buttons to scroll through the menu and highlight one of the following settings:
  - **No Delay** (default).
  - **5 seconds** — key pad locks after five seconds.
  - **10 seconds** — key pad locks after 10 seconds
  - **20 seconds** — key pad locks after 20 seconds.
- 7 Press the **Select** button (or **OK**) to select the highlighted setting.
- 8 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

See “[Lock and unlock the keypad](#)” on page 28 for further information.

## Select the Language

If the Call Server supports multiple languages, the language option will list the available languages. The user option menu and all other local handset prompts are English-only. Menus and screens that originate from the Call Server are displayed in the configured language.

### To select a language

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Language**.
- 3 Press the **Select** button (or **OK**) to select **Language**.
- 4 Press the **Up** and **Down** buttons to scroll through the list of languages.
- 5 Press the **Select** button (or **OK**) to select the highlighted language.

6 Do one of the following:

- Press **UP** to return to the previous menu and configure another option.
- Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## Ring Options

The Ring Options enables you to configure the WLAN Handset ring tone for the three different ringer types: **Telephone Ring**, **Auxiliary 1**, and **Auxiliary 2**.



**Note:** Auxiliary 1 and Auxiliary 2 are reserved for future use.

---

Telephone Ring allows further configuration for:

- **Ring Cadence** — controls the ringing rhythm.
- **Ring Tone** — controls the ringing tone (see note 1).
- **Ring Volume** — controls the ringing volume.
- **Vibrate Cadence** — controls the vibration rhythm.
- **Ring Delay** — controls how long the vibrate cadence plays before the audible ring starts (see note 2).



**Note:** Ring Tone is not displayed in the menu when Ring Cadence is turned off.

---



**Note:** Ring Delay is not displayed in the menu when Ring Cadence or Vibrate Cadence is turned off.

---

## To select the Ring Cadence

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Ring Options**.
- 3 Press the **Select** button (or **OK**) to select **Ring Options**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Telephone Ring**.
- 5 Press the **Select** button (or **OK**) to select **Telephone Ring**.
- 6 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Ring Cadence**.
- 7 Press the **Select** button (or **OK**) to select **Ring Cadence**.

- 8 Scroll to one of the desired options:
  - **Off** — ringer is turned off.
  - **PBX** — ringing uses the distinctive ringing pattern sent to the handset from the call server.
  - **Continuous** — ringing is continuous.
  - **Short Pulse** — ringing occurs in short bursts.
  - **Long Pulse** — ringing occurs in long bursts.
- 9 Press the **Select** button (or **OK**) to select the highlighted option.
- 10 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## To select the Ring Tone



**Note:** Ring Tone is not displayed in the menu when Ring Cadence is turned off.

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Ring Options**.
- 3 Press the **Select** button (or **OK**) to select **Ring Options**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Telephone Ring**.
- 5 Press the **Select** button (or **OK**) to select **Telephone Ring**.
- 6 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Ring Tone**.
- 7 Press the **Select** button (or **OK**) to select **Ring Tone**.
- 8 Scroll to one of the desired options:
  - **Tone 1**
  - **Tone 2**
  - **Tone 3**
  - **Tone 4**
  - **Tone 5**
- 9 Press the **Play** soft key to preview the tone.

- 10 Press the **Select** button (or **OK**) to select the highlighted option.
- 11 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## To select the Ring Volume

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Ring Options**.
- 3 Press the **Select** button (or **OK**) to select **Ring Options**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Telephone Ring**.
- 5 Press the **Select** button (or **OK**) to select **Telephone Ring**.
- 6 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Ring Volume**.
- 7 Press the **Select** button (or **OK**) to select **Ring Volume**.
- 8 Press the **Up** and **Down** buttons to increase or decrease the volume.
- 9 Press the **Select** button (or **OK**) to save the volume.
- 10 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.



**Note:** You cannot change the ring volume on WLAN Handset 2210 or WLAN Handset 2212. The WLAN Handset 2210 and WLAN Handset 2212 do not support the Ring Volume feature. You can change the ring volume on WLAN Handset 2211, where the Ring Volume feature is supported.

---

## To select the Vibrate Cadence

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Ring Options**.
- 3 Press the **Select** button (or **OK**) to select **Ring Options**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Telephone Ring**.
- 5 Press the **Select** button (or **OK**) to select **Telephone Ring**.
- 6 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Vibrate Cadence**.
- 7 Press the **Select** button (or **OK**) to select **Vibrate Cadence**.

- 8 Scroll to one of the desired options:
  - **Off** — vibration is turned off.
  - **PBX** — vibration uses the distinctive pattern sent to the handset from the call server.
  - **Continuous** — vibration is continuous.
  - **Short Pulse** — vibration occurs in short bursts.
  - **Long Pulse** — vibration occurs in long bursts.
- 9 Press the **Select** button (or **OK**) to select the highlighted option.
- 10 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## To select the Ring Delay



**Note:** Ring Delay is not displayed in the menu when Ring Cadence or Vibrate Cadence is turned off.

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Ring Options**.
- 3 Press the **Select** button (or **OK**) to select **Ring Options**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Telephone Ring**.
- 5 Press the **Select** button (or **OK**) to select **Telephone Ring**.
- 6 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Ring Delay**.
- 7 Press the **Select** button (or **OK**) to select **Ring Delay**.
- 8 Scroll to one of the desired options:
  - **No Delay** — the handset rings and vibrates immediately.
  - **5 Second Delay** — the handset vibrates for five seconds before ringing starts.
  - **10 Second Delay** — the handset vibrates for 10 seconds before ringing starts.
- 9 Press the **Select** button (or **OK**) to select the highlighted option.
- 10 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## Phone Options

The Phone Options menu enables you to configure:

- **Noise Mode** — enables you to adjust the WLAN Handset for different levels of noise within the working environment.
- **Key Tones** — determines if tones play when the keys are pressed.
- **Warning Tones** — determines if warning tones — such as system up, system down or out of range — are played.
- **Display Contrast** — controls the amount of contrast for the display for different lighting conditions.
- **Keypad Autolock** — controls the automatic locking of the handset key pad when the handset is in standby mode.

### To select the Noise Mode

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Phone Options**.
- 3 Press the **Select** button (or **OK**) to select **Phone Options**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Noise Mode**.
- 5 Press the **Select** button (or **OK**) to select **Noise Mode**.
- 6 Press the **Up** and **Down** buttons to scroll through the menu and highlight one of the following settings:
  - **Normal** — For most office environments (default).
  - **High** — For moderate background noise.
  - **Severe** — For extremely noisy conditions.
- 7 Press the **Select** button (or **OK**) to select the highlighted setting.
- 8 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

### To select the Key Tones

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Phone Options**.
- 3 Press the **Select** button (or **OK**) to select **Phone Options**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Key Tones**.
- 5 Press the **Select** button (or **OK**) to select **Key Tones**.

- 6 Press the **Up** and **Down** buttons to scroll through the menu and highlight one of the following settings:
    - **Enable Tones** (default)
    - **Disable Tones**
  - 7 Press the **Select** button (or **OK**) to select the highlighted setting.
  - 8 Do one of the following:
    - Press **UP** to return to the previous menu and configure another option.
    - Press  to exit all menus and return to the standby state.
- You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

### To select the Warning Tones

- 1 Press  when the handset is in the standby state.
  - 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Phone Options**.
  - 3 Press the **Select** button (or **OK**) to select **Phone Options**.
  - 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Warning Tones**.
  - 5 Press the **Select** button (or **OK**) to select **Warning Tones**.
  - 6 Press the **Up** and **Down** buttons to scroll through the menu and highlight one of the following settings:
    - **Enable Warnings** (default)
    - **Disable Warnings**
  - 7 Press the **Select** button (or **OK**) to select the highlighted setting.
  - 8 Do one of the following:
    - Press **UP** to return to the previous menu and configure another option.
    - Press  to exit all menus and return to the standby state.
- You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

### To select the Display Contrast

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Phone Options**.
- 3 Press the **Select** button (or **OK**) to select **Phone Options**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Display Contrast**.
- 5 Press the **Select** button (or **OK**) to select **Display Contrast**.
- 6 Press the **Up** and **Down** buttons to increase or decrease the contrast.

- 7 Press the **Select** button (or **OK**) to select the highlighted setting.
- 8 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## Configure push-to-talk

Push-to-talk is available on the WLAN Handset 2211 only.

Push-to-talk mode enables two-way radio communication with another WLAN Handset 2211 user. You can enable/disable Push-to-Talk mode and select a channel.

### To configure Push-to-Talk for the handset

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Push-to-Talk**.
- 3 Press the **Select** button (or **OK**) to select **Push-to-Talk**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Enable/Disable**.
- 5 Press the **Select** button (or **OK**) to select **Enable/Disable**.
- 6 Press the **Up** and **Down** buttons to scroll through the menu and highlight one of the following settings:
  - **PTT Enable** — Enables Push-to-Talk mode.
  - **PTT Disable** — Disables Push-to-Talk mode. This is the default.
- 7 Press the **Select** button (or **OK**) to select the highlighted option.
- 8 Press the **Up** soft key to return to the previous menu.
- 9 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Channel**.
- 10 Use the **Up** and **Down** buttons to scroll through the menu and highlight a channel (1 to 8).
- 11 Press the **Select** button (or **OK**) to select the channel.
- 12 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## Adjust ringer volume

You have two ways to adjust the ringer volume:

- Press the **Up** or **Down** button while the handset is ringing.
- configure the volume using the **FCN** button when in standby state. See “[To select the Ring Volume](#)” on page 22 for further information.

## Adjust speaker volume

You can increase or decrease the speaker volume of the WLAN Handset 2211 only.

You have two ways to adjust the ringer volume:

- Press the **Up** or **Down** button while on a call.
- Configure the volume using the **FCN** button when in standby state.

## To adjust speaker volume using the Function menu

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Push-to-Talk**.
- 3 Press the **Select** button (or **OK**) to select **Push-to-Talk**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Audio Volume**.
- 5 Press the **Select** button (or **OK**) to select **Audio Volume**.
- 6 Press the **Up** and **Down** buttons to adjust the volume to a suitable level.
- 7 Press the **Select** button (or **OK**) to select the setting.
- 8 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## Silence the ringer

You can silence (or mute) the WLAN Handset ringer.

You silence the ringer in one of two ways:

- To silence the ringer, press  while the handset is ringing.
- Use the FCN menu in standby mode

## To silence the ringer using the Function menu

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Ring Options**.
- 3 Press the **Select** button (or **OK**) to select **Ring Options**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Telephone Ring**.
- 5 Press the **Select** button (or **OK**) to select **Telephone Ring**.
- 6 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Ring Cadence**.
- 7 Press the **Select** button (or **OK**) to select **Ring Cadence**.
- 8 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Off**.
- 9 Press the **Select** button (or **OK**) to select **Off**.
- 10 Press the **Select** button (or **OK**) to select the setting.
- 11 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## Lock and unlock the keypad

When the automatic keypad locking is enabled, the keypad will lock after the configured number of seconds with no key presses (see [“To select the Keypad Autolock” on page 19](#)). You can also lock the keypad before the delay, using [“To lock the keypad” on page 28](#).

To unlock the locked keypad, follow [“To unlock the keypad” on page 28](#).

### To lock the keypad

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Lock Keys**.
- 3 Press the **Select** button (or **OK**) to select **Lock Keys**.

The keypad is locked immediately.

### To unlock the keypad

- 1 Press  when the handset is in the standby state.
- 2 Press the  key.

The keypad is unlocked immediately.

## Security

The WLAN Handsets provide two security modes:

- insecure — This is the default mode.
- secure

Your handset is pre-programmed by the system administrator for the type of security you need. For more information, consult your administrator.



**Warning:** Do not change the security level through your handset.

---



# Chapter 3

## Feature and function menus

You can view the features and functions programmed in your system using various menus, soft key features, and the Line (DN) features. You can access some functions and features using one or more of the methods described in this section.

This section describes the WLAN Handset feature and function menus:

- “Feature and function keys” on page 31
- “Soft Key Abbreviations menu—MENU key” on page 32
- “Function menu—FCN key” on page 32
- “Feature menu—LINE key” on page 32



**Note:** For more information about the features available to your WLAN Handset and how to use them, refer to the *BCM Telephone Feature Card*.

## Feature and function keys

The following table lists the features and functions available on the WLAN Handset, along with their key sequence.

**Table 4** WLAN Handset feature and function keys

Key sequence	Feature/Function
 + 1	Mute
 + 2	Hold
 + 3	Goodbye
 + 4	Directory
 + 5	Inbox
 + 6	Outbox
 + 7	Quit
 + 8	Copy
 + 1	Intercom
 + 2	Intercom
 + 3	Page - General
 + 4	Last Number Redial
 + 5	Conference Call
 + 6	Call Forward

## Soft Key Abbreviations menu—MENU key

Use the Soft Key Abbreviations menu to view the full description of the soft key abbreviations and access the WLAN Handset features.

### To activate a feature

- 1 Place the handset in the active (idle) or active (off-hook) state.
- 2 Press  to view the Soft Key Abbreviations menu.
- 3 Press the **Up** and **Down** buttons to scroll through the list of features. The full description is highlighted in the display area.
- 4 Do one of the following:
  - Press the **Select** button (or **OK**) to activate the highlighted feature.
  - Press the appropriate number key. The feature does not have to be highlighted.

## Function menu—FCN key

Use the Function menu to view and activate the WLAN Handset functions.

### To activate a function

- 1 Place the handset in the active (idle) or active (off-hook) state.
- 2 Press  to display the first four functions in the display area. Press  again to view more functions.
- 3 Press the **Up** and **Down** buttons to scroll through the list of functions. The abbreviation is highlighted in the display area.
- 4 Do one of the following:
  - Press the **Select** button (or **OK**) to activate the highlighted feature.
  - Press the appropriate number key. The feature does not have to be highlighted.

## Feature menu—LINE key

Use the Feature menu to view and activate the WLAN Handset line features. These features are programmed on each handset using the six line keys (number keys 1 through 6).



**Note:** A feature must be available on the system before it can be programmed on a handset.

---

## To activate a feature

- 1 Place the handset in the active (idle) or active (off-hook) state.
- 2 Press  to view the first screen of the Feature menu. Press  again to view the second screen.
- 3 Press the **Up** and **Down** buttons to scroll through the list of features. The abbreviation is highlighted in the display area.
- 4 Do one of the following:
  - Press the **Select** button (or **OK**) to activate the highlighted feature.
  - Press the number key (1 through 6) corresponding to the desired feature. The feature does not have to be highlighted.

## Program Feature menu items

You must be in the active (off-hook) state to program a Feature menu item.

### To use external autodial

- 1 Press **Feature** \*1.
- 2 Press  and a number key (1 through 6) corresponding to an available key.
- 3 Dial the external number, including routing codes.
- 4 Press **OK** to store the number.

### To use internal autodial

- 1 Press **Feature** \*2.
- 2 Press  and a number key (1 through 6) corresponding to an available key.
- 3 Dial the extension number.
- 4 Press **OK** to store the number.

### To use features

- 1 Press **Feature** \*3.
- 2 Press  and a number key (1 through 6) corresponding to an available key.
- 3 Press **Feature** and enter the feature code.
- 4 Press **OK** to store the feature code.

## To erase memory buttons

- 1 Press Feature \*1.
- 2 Press  and a number key (1 through 6) corresponding to an available key.
- 3 Press OK to erase the button.

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# Chapter 4

## Features, functions, and buttons

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This section describes some of the WLAN Handset buttons and call features:

- [“Basic call features” on page 35](#)



**Note:** For more information about the features available to your WLAN Handset and how to use them, refer to the *BCM Telephone Feature Card*.

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### IMPORTANT!

#### User **MUST** end every call

The user must end every call, by pressing the **Power Off/End Call** key, to release system resources and allow the WLAN Handset to function properly. If this is not done, it will result in the ringer not ringing and you might miss an important call.

---

## Basic call features

You can make external and internal calls using the following features:

- Make a call
- Answer a call
- Hold a call
- Use the headset
- Mute a call

## Make a call

There are many ways to make a call, depending on your handset programming and the type of call.

### To make external calls using line keys

- 1 Press  to go off-hook.
- 2 Press  to access the Feature menu.
- 3 Press a number key (1 through 6) corresponding to the desired line key.
- 4 Dial the external number.

## To make external calls using intercom keys

- 1 Press  to go off-hook.
- 2 Press  to access the Feature menu.
- 3 Press a number key (1 through 6) corresponding to the desired intercom key and enter a line pool access code or destination code.
- 4 When you hear an external dial tone, dial the external number.



**Note:** Contact your system administrator for a list of line pool codes. PRI lines do not support line pool access codes; they must be configured as a destination code. When entering a destination code on PRI lines, you will not hear dial tone.

---

## To make internal calls using intercom buttons

- 1 Press  to go off-hook.
- 2 Press  to access the Feature menu.
- 3 Press a number key (1 through 6) corresponding to the desired intercom key.
- 4 Dial the extension number.



**Note:** Contact your system administrator for a list of extension numbers.

---

## Answer calls

When your handset rings or vibrates, a line number on the display flashes, and the display shows information about the call, such as the caller's name and extension:

- Press .

## Hold

- While on a call, press  and . The indicator for the line on hold flashes.
- To retrieve a held call, press , while in the active (off-hook) state. Then press the number key corresponding to the flashing line number.

## Headset

You must have a headset installed on your handset to use this feature.

- Connect the headset to the headset jack. Follow the steps in [“Make a call” on page 35](#) to make your call.
- To answer a call with a headset plugged into your handset, press any key other than **Power On/Start Call**, **Power Off/End Call**, the soft keys, or the **Up/Down/Select** buttons.

## Mute

- While on a call, press  and  to turn the microphone off.
- Press  and  again to turn the microphone on.

## End calls

You must end every call, by pressing the **Power Off/End Call** key, to release system resources and allow the WLAN Handset to function properly. If you press the Power Off/End Call key, you enable the handset to go to low-power standby mode to conserve battery power.

## Push-to-Talk

Push-to-Talk is available on the WLAN Handset 2211 only.

Push-to-Talk mode enables the WLAN Handset 2211 to operate in a group broadcast mode in addition to the standard handset operation. The WLAN Handset 2211 supports eight multicast channels with the current channel saved in the handset memory.

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### IMPORTANT!

Pressing any other keys or buttons (such as the **Up/Down/Select** or keypad keys) while in a Push-to-Talk call will terminate the call.

---

## Call period

Push-to-Talk mode operates on the concept of a call period. The Push-to-Talk call period begins with the first transmission and ends when there has been no two-way radio traffic on the channel for 10 seconds.

The Push-to-Talk mode controls the handset keypad during the call period. Therefore, it is not possible to use the keypad for any other functions. However, it is possible to place and receive telephone calls.

## To initiate a Push-to-Talk call

- 1 Press the **Push-to-Talk** button on the right side of the handset.

The “start transmit” tone sounds within two seconds. The channel is active and the display screen shows the current active channel.

- 2 Speak into the handset’s microphone.

All WLAN Handsets 2211 that are monitoring that channel hear the transmission.

- 3 Release the **Push-to-Talk** button.

The “end transmit” tone sounds. The handset enters the waiting state, where it monitors the channel for up to 10 seconds.

## Receive a Push-to-Talk transmission

Upon receiving a Push-to-Talk transmission, the “receiving alert” tone sounds and the handset enters the receive state.

In this state, the handset receives all conversations on the selected channel. The display shows the current active channel, the caller ID of the current transmitter, and an indication that the handset is receiving a broadcast transmission.

At the end of a transmission, the handset enters the waiting state, where it monitors the channel for up to 10 seconds and displays “Waiting” on the screen. If no other transmission occurs within 10 seconds, the “end call” tone sounds and the handset becomes idle.

## To respond to a Push-to-Talk call

- 1 When you hear a transmission, press the **Push-to-Talk** button on the right side of the handset.

The “start transmit” tone sounds. Since all handsets on that channel are already in the receive state, there is no two-second delay.

- 2 Speak into the handset’s microphone.

If no transmission occurs during the 10-second countdown period, the “end call” tone sounds and the handset becomes idle.

## To change the Push-to-Talk volume

- 1 Use the **Up** and **Down** buttons to increase or decrease volume.

A separate volume is maintained in Push-to-Talk mode.

## To mute a current Push-to-Talk call

Mute affects only the current call. When the next call period starts, the audio is automatically unmuted. Mute does not allow the user to use the handset's keypad for anything else.

- 1 Press the **Mute** soft key.

The following prompt displays:  
*Mute Two-Way Radio?*

- 2 Press the **Yes** soft key to mute the call.

The prompt disappears after three seconds if there is no response.

## To unmute a Push-to-Talk call

- 1 Press the **Unmute** soft key.

The following prompt displays:  
*Unmute Two-Way Radio?*

- 2 Press the **Yes** soft key to unmute the call.

The prompt disappears after three seconds if there is no response.

## To end a Push-to-Talk call

Only the current call is terminated for this handset. When the next call period starts, the handset is again in the receive state. You can rejoin a still-active session by initiating a Push-to-Talk call.

- 1 Press the **Terminate** soft key.

The following prompt displays:  
*Terminate Two-Way Radio?*

- 2 Press the **Yes** soft key to end the call.

Push-to-Talk audio is immediately stopped and the handset returns to regular mode.

## To answer a call during a Push-to-Talk call

An incoming call can be answered while in a Push-to-Talk call. To announce an incoming call, the handset rings with a low-volume ring and displays a system message.

- 1 Press  .

The Push-to-Talk session is pre-empted.

- 2 After the call is over, press  as usual to go back on-hook.

The Push-to-Talk session goes out of pre-empted mode and becomes active again. If an active Push-to-Talk call has not ended, the audio is heard again.

## To make a call during a Push-to-Talk call

A call can be made while in a Push-to-Talk call.

- 1 Press  .

The Push-to-Talk session is pre-empted.

- 2 After the call is over, press  as usual to go back on-hook.

The Push-to-Talk session goes out of pre-empted mode and becomes active again. If an active Push-to-Talk call has not ended, the audio is heard again.

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# Chapter 5

## Troubleshooting

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This section describes the options to view specific information about your WLAN Handset and error messages displayed by your WLAN Handset. This information is useful in troubleshooting numerous problems.

This section contains information about:

- “View system information” on page 41
- “View the current call server IP address” on page 42
- “View terminal type” on page 43
- “View extension” on page 43
- “Display messages” on page 44

### View system information

The System Info option enables the user to view information about the system. It displays:

- handset IP address
- server IP address
- handset firmware version

#### To view the handset IP address

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **System Info**.
- 3 Press the **Select** button (or **OK**) to select **System Info**.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Phone IP Addr**.
- 5 Press the **Select** button (or **OK**) to select **Phone IP Addr**.
- 6 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## To view the server IP address

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight *System Info*.
- 3 Press the **Select** button (or **OK**) to select *System Info*.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight *Server IP Addr*.
- 5 Press the **Select** button (or **OK**) to select *Server IP Addr*.
- 6 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## To view the handset firmware version

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight *System Info*.
- 3 Press the **Select** button (or **OK**) to select *System Info*.
- 4 Press the **Up** and **Down** buttons to scroll through the menu and highlight *Firmware Version*.
- 5 Press the **Select** button (or **OK**) to select *Firmware Version*.
- 6 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## View the current call server IP address

The *Current Call Svr* option enables the user to view information about the call server in use. You cannot change the settings.

## To view the current call server

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight *Current Call Svr*.
- 3 Press the **Select** button (or **OK**) to select *Current Call Svr*.

4 Do one of the following:

- Press **UP** to return to the previous menu and configure another option.
- Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## View terminal type

The Terminal Type option shows the handset type used by the system. The Terminal Type option is for display purposes only. You cannot edit this option.

### To view the terminal type

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Terminal Type**.
- 3 Press the **Select** button (or **OK**) to select **Terminal Type**.
- 4 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## View extension

The **Extension** option enables the user to view the extension number for the WLAN Handset. This number is used to identify the handset. It displays when the handset is in the standby state.



**Note:** The extension for the handset cannot be changed on the handset.

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## To view the extension number

- 1 Press  when the handset is in the standby state.
- 2 Press the **Up** and **Down** buttons to scroll through the menu and highlight **Extension**.
- 3 Press the **Select** button (or **OK**) to select **Extension**.
- 4 Do one of the following:
  - Press **UP** to return to the previous menu and configure another option.
  - Press  to exit all menus and return to the standby state.

You can also press **Exit** from the top-level menu to exit the menu and return to the active (off-hook) state.

## Display messages

The following table lists the messages that can appear on your WLAN Handset. If a message appears that cannot be resolved, contact your system administrator.

**Table 5** WLAN Handset messages, descriptions, and actions

Message	Description	Action
3 chirps	WLAN Handset is not able to communicate with the best access point, probably because that access point has no bandwidth available.	None. This is only a warning. The call will handoff to the best access point once it becomes available.
Address Mismatch	The WLAN Handset software download files are incorrect or corrupted.	Contact your system administrator.
ASSERT xxxx.c Line yyy	The WLAN Handset has detected a fault from which it cannot recover.	Record the error information and contact your system administrator.
Assoc Failed xxxxxxxxxx	The WLAN Handset association was refused by the Access Point.	Record the error information and contact your system administrator.
Assoc Timeout xxxxxxxxxx	The WLAN Handset did not receive an association response from the Access Point.	Record the error information and contact your system administrator.
Auth Failed xxxxxxxxxx	The WLAN Handset authentication was refused by the access point.	Record the error information and contact your system administrator.
Auth Timeout xxxxxxxxxx	The WLAN Handset did not receive authentication from the access point.	Record the error information and contact your system administrator.
Bad Code Type xxx Expected Code Type yyy	The WLAN Handset software does not match the current handset license selection.	Record the error information and contact your system administrator.
Bad Config	Some needed configuration parameter has not been configure.	Contact your system administrator.
Bad ESSID	The WLAN Handset is configured wrong.	Contact your system administrator.
Bad Local ID	The WLAN Handset is configured wrong.	Contact your system administrator.
Bad Local ID Type	The WLAN Handset is configured wrong.	Contact your system administrator.

**Table 5** WLAN Handset messages, descriptions, and actions

Message	Description	Action
Bad Network IP	The WLAN Handset is configured wrong.	Contact your system administrator.
Bad Network Mask	The WLAN Handset is configured wrong.	Contact your system administrator.
Bad Payload Type	There may be a configuration problem with the handset of the VPN server.	Contact your system administrator.
Bad Phintl File	The WLAN Handset software download files are incorrect or corrupted.	Contact your system administrator.
Bad Program File	The WLAN Handset software download files are incorrect or corrupted.	Contact your system administrator.
Bad Preshared Key	The WLAN Handset is configured wrong.	Contact your system administrator.
Bad Tunneled IP	The WLAN Handset is configured wrong.	Contact your system administrator.
Bad VPN Server IP	The WLAN Handset is configured wrong.	Contact your system administrator.
 or  icon Battery Low message and beep	Low battery	<b>In call:</b> the battery icon (  ) displays and a soft beep is heard when the user is on the WLAN Handset and the battery charge is low. User has 15–30 minutes of battery life left.  <b>Not in call:</b> The battery icon (  ) displays whenever the battery charge is low. The message <b>Low Battery</b> and a beep indicate a critically low battery charge. The WLAN Handset will not work until the battery pack is charged.
Battery Failure	The battery pack is not functioning.	Replace the battery pack with a new or confirmed Nortel battery pack. Any non-Nortel battery packs will not work.
Battery Failed	The battery pack is damaged or incompatible with the WLAN Handset.	Replace the battery pack with a new or confirmed Nortel battery pack. Any non-Nortel battery packs will not work.
Can't Renew DHCP yyy.yyy.yyy.yyy	The DHCP server is not responding to the initial renewal attempt.	Record the error information and contact your system administrator.
Charging ...	The WLAN Handset is charging in the Desktop Charger.	No action needed.
Charge Complete	The WLAN Handset is now fully charged.	No action needed.
Checking Code	The WLAN Handset is checking for a newer version of software that should be downloaded.	None. This message lasts for approximately one second. If message remains displayed, power off the WLAN Handset and contact your system administrator.
Checking DHCP IP	The WLAN Handset is retrieving DHCP information from the DHCP server.	None. This is informational only.
CRC Code Error	The software which has been TFTP downloaded has a bad redundancy code check.	Contact your system administrator.
Code Mismatch!	The software loaded into the WLAN Handset is incorrect for the handset model.	Contact your system administrator.

**Table 5** WLAN Handset messages, descriptions, and actions

Message	Description	Action
DCA Timeout	The WLAN Handset has detected a fault for which it cannot recover, possibly due to a failure to acquire any network.	Turn the WLAN Handset off, then on again. If the error persists, contact your system administrator.
DHCP Error (1-5)	DHCP Error 1	The WLAN Handset cannot locate a DHCP server. It will try every four seconds until a server is located.
	DHCP Error 2	The WLAN Handset has not received a response from the DHCP server to a request for an IP address. It will retry until a DHCP server is found.
	DHCP Error 3	The server refuses to lease the WLAN Handset an IP address. It will keep trying.
	DHCP Error 4	The DHCP server offered the WLAN Handset a lease that is too short. The minimum lease time is 10 minutes. One hour is the minimum recommended lease time.  The WLAN Handset will stop trying. Notify the system administrator.
	DHCP Error 5	Failure during WEP Key rotation process (proprietary feature). Notify the system administrator.
DHCP Lease Exp yyy.yyy.yyy.yyy	DHCP is not responding to renewal attempts (at least one renewal succeeded).	The WLAN Handset failed to renew its DHCP lease, either because the DHCP server is not running, or because the configuration has been changed by the administrator. The handset will attempt to negotiate a new lease, which will either work, or change to one of the DHCP errors.
DHCP NACK error yyy.yyy.yyy.yyy	The DHCP server explicitly refused renewal.	The DHCP lease currently in use by the WLAN Handset is no longer valid, which forces the handset to restart. This problem should resolve itself after the restart. If it does not, the problem is in the DHCP server, and you should contact your system administrator.
DL Not On Sector	The WLAN Handset software download files are incorrect or corrupted.	Contact your system administrator.
DO NOT POWER OFF	The WLAN Handset is in a critical section of the software update.	None. Do not remove the battery or attempt to power off the WLAN Handset while this is displayed. Doing so may require the handset to be returned to Nortel to be recovered.
Duplicate IP	The WLAN Handset has detected another device with the same IP Address.	Contact your system administrator.
Erase Failed	Download process failed to erase the memory in the WLAN Handset.	If error "int. error: 0F" is displayed, turn the WLAN Handset off, then on again. If error persists, contact your system administrator.

**Table 5** WLAN Handset messages, descriptions, and actions

Message	Description	Action
Erasing memory	The WLAN Handset has determined that a download should occur and is erasing the current software from memory.	None. When the progress bar fills the display line, the erase operation is complete. <b>Do not turn the WLAN Handset off during this operation.</b>
Files Too Big	The WLAN Handset software download files are incorrect or corrupted.	Contact your system administrator.
Flash Config Error	The WLAN Handset is configured wrong.	Contact your system administrator.
Initializing ...	The WLAN Handset is performing power on initialization.	None. This is informational only.
Internal Err. # #	The WLAN Handset has detected a fault from which it cannot recover.	Record the error code so it can be reported. Turn the WLAN Handset off, then on again. If error persists, contact your system administrator.
Invalid ID Info	The VPN server did not recognize yo.	Contact your system administrator.
Multiple SVP Svr yyy.yyy.yyy.yyy	The WLAN Handset is attempting to communicate with two WLAN IP Telephony Managers 2245.	If this persists, record the information and contact your system administrator.
Must Upgrade SW!	The WLAN Handset software is incompatible with the hardware.	Contact your system administrator.
Net Busy xxxxxxxxxx	All access points are full or busy.	Try call again later.
No DHCP Server	The WLAN Handset is unable to contact the DHCP server.	Contact your system administrator
No ESSID	The WLAN Handset is configured wrong.	Contact your system administrator.
No Func Code	The WLAN Handset software download files are incorrect or corrupted.	Contact your system administrator.
No Host IP xxxxxxxxxxxx	The WLAN Handset is configured wrong.	Contact your system administrator.
No IP Address	Invalid IP address.	Contact your system administrator.
No Net Access	Cannot authenticate/associate with access point	Contact your system administrator.
No Net Found	Can be caused by a variety of issues	Contact your system administrator.
No Net Found xxxxxxxxxxxx yy	The WLAN Handset cannot find a suitable access point.	Record the error information and contact your system administrator.
No PBX Response	The WLAN Handset tried to send a message to the Call Server and failed to get a response.	Contact your system administrator.
No Proposal	The WLAN Handset is configured wrong.	Contact your system administrator.
No Reg Domain	Regulatory Domain not configure	Contact your system administrator.
No SVP IP	The WLAN Handset is configured wrong.	Contact your system administrator.
No SVP Response yyy.yyy.yyy.yyy	The WLAN Handset has lost contact with the SVP server.	If the problem persists, record the error information and contact your system administrator.
No SVP Server	The WLAN Handset is configured wrong.	Contact your system administrator.

**Table 5** WLAN Handset messages, descriptions, and actions

Message	Description	Action
No SVP Server No DNS Entry	The WLAN Handset was unable to perform DNS lookup for the SVP Server, the server had no entry for the SVP server.	Contact your system administrator.
No SVP Server No DNS IP	The WLAN Handset was unable to perform DNS lookup for the SVP Server, no IP Address for the SVP server.	Contact your system administrator.
No SW Found	A required software component has not been properly installed.	Contact your system administrator.
No UNISTIM DHCP	The WLAN Handset is configured wrong.	Contact your system administrator.
No VPN Server	The WLAN Handset is configured wrong.	Contact your system administrator.
Not Installed!	A required software component has not been properly installed.	Contact your system administrator.
Payload Malformed	The WLAN Handset is configured wrong.	Contact your system administrator.
Press End Call	The far end of a call has hung up.	Hang up the near end.
Restart Command	The WLAN Handset received a restart command from the server.	None. The WLAN Handset will automatically restart in a few seconds.
RTP Open Failed	The WLAN Handset encountered an error in connecting to the Call Server.	Power off and then power on the handset. If the problem persists, contact your system administrator.
Select License	The WLAN Handset is configured wrong.	Contact your system administrator.
Server Busy	The WLAN Handset is attempting to download from a TFTP Server that is busy downloading other devices and refusing additional downloads.	None. The WLAN Handset will automatically retry the download every few seconds.
SKT Open Failed	The WLAN Handset encountered an error in connecting to the Call Server.	If the problem persists, contact your system administrator.
Storing Config	The WLAN Handset is storing changes to the handset configuration.	None. This is informational only.
SVP Service Rej.	The SVP Server has rejected a request from the WLAN Handset.	If the problem persists, contact your system administrator.
System Busy yyy.yyy.yyy.yyy	The Server has reached its call capacity.	All call paths are in use. Try the call again in a few minutes.
System Locked (with Busy Tone)	System is locked	Try the call again, system has been locked for maintenance.
TFTP ERROR(x):yy	A failure has occurred during a software download.	Power off the WLAN Handset, then turn it on again to retry the download. If the error persists, contact your system administrator.
Too Many Errors	The WLAN Handset continues to reset and cannot be recovered.	Contact your system administrator.
Unknown xx:yy:zz	A phrase is missing from a download file.	Contact your system administrator.
Updating ...	The WLAN Handset is internally updating its software images.	None. The handset may do this briefly after a download. This is informational only.

**Table 5** WLAN Handset messages, descriptions, and actions

Message	Description	Action
Updating Code ...	The WLAN Handset is downloading new software into memory. The number icons at the bottom of the display indicate which file number is currently being downloaded. This message also displays a progress bar. When the progress bar fills the display line, the update operation is complete on that file.	None. <i>Do not turn the WLAN Handset off during this operation.</i>
VPN Error: xxx	The WLAN Handset encountered an error. The error message and code is displayed.	Record the error information and contact your system administrator.
Waiting ...	The WLAN Handset has attempted some operation several times and failed, and is now waiting for a period of time before attempting that operation again.	None. The WLAN Handset is waiting for a specified period of time before attempting that operation again.
Watchdog Timeout	The WLAN Handset failed to hear from the supported VOIP solution within the watchdog timeout interval.	Contact your system administrator.
Wrong Code Type.	The software loaded into the WLAN Handset is incorrect for this model of handset.	Contact your system administrator.



# Chapter 6

## WLAN Handset, headset, batteries, chargers, and accessories

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This section contains information about:

- [“Cleaning your WLAN Handset” on page 51](#)
- [“Headset” on page 52](#)
- [“Battery packs” on page 52](#)
- [“Desktop Charger” on page 54](#)
- [“Dual Charger” on page 56](#)
- [“Cleaning the Desktop, Dual or Quad Chargers” on page 58](#)
- [“Cleaning the WLAN Handset contacts” on page 59](#)
- [“Accessories” on page 59](#)

### Cleaning your WLAN Handset

The WLAN Handset occasionally must be cleaned to maintain appearance. In general, wiping the handset surface with a clean water-dampened cloth or paper towel removes most films or residues.

If more rigorous cleaning is required, you can use:

- A mild detergent solution. Be sure to wipe away any detergent residue with a plain water-dampened cloth.
- Any general-purpose household glass and surface cleaner. Do not spray the handset directly. Spray the cleaner on a soft cloth or paper towel, then wipe the handset.
- Pre-treated cloths, like those used for eyeglasses or cameras.
- Pre-moistened towelettes. Avoid those containing lanolin or aloe, which leave a slippery residue.
- Isopropyl alcohol, applied by a damp cloth or paper towel. When using alcohol, do not rub the keypad characters vigorously, as this will significantly degrade legibility.

---

#### **IMPORTANT!**

- Do not use furniture polishes, waxes, or plasticizer-based cleaner.
  - Do not use lanolin, aloe, glycerin, or other skin care products.
  - Do not apply any solvent such as acetone or mineral spirits.
  - Do not directly spray or immerse the handset.
- 

If the headset connector becomes dirty, you may experience a scratchy or intermittent signal. To clean the connector, dip the padded end of either a wooden- or paper-handled cotton swab in isopropyl alcohol. Gently insert in the connector and twist, repeating several times. If available, blow compressed air into the connector to clear debris.

## Headset

Nortel offers optional headsets, with a quick-disconnect jack, for use in noisy environments or for use if you need to have your hands free while talking. The headset is not available in all regions.

To use the headset, simply plug it into the jack on the bottom of your WLAN Handset. If the headset is disconnected using the quick-disconnect jack, there is no audio connection on the headset or the speaker and microphone in the WLAN Handset.

The headset is specifically designed to work with the WLAN Handset. Nortel does not recommend using other headsets.

The following figure shows the headset jack for the WLAN Handset.

**Figure 4** WLAN Handset bottom view



---

### **IMPORTANT!**

The only authorized headsets that can be used with WLAN Handset are those obtained from Nortel, Plantronics, or their reseller partners.

---

## Battery packs

The battery pack for the WLAN Handset must be recharged periodically. The WLAN Handset 2210 and WLAN Handset 2211 use Nickel Metal Hydride (NiMH) rechargeable battery packs, while the WLAN Handset 2212 uses a Lithium ion rechargeable battery pack. The battery packs provide four hours of talk time or 70 hours of standby time. Standby time is when the handset is turned on, but not in an active call.

Battery packs are not interchangeable. Use only the battery made for your handset.

The following figures show the location of the battery packs on the handsets.

**Figure 5** WLAN Handset 2210 and 2212 battery pack location

## Low battery indicators

The WLAN Handset notifies you when the charge on the battery pack is low by displaying the battery icon (🔋). If you are not in a call, you hear a loud beep. If you are in a call, you hear a soft beep through the earpiece every six seconds. At this point, your handset has 15 to 30 minutes of battery life left.

The low battery icon (🔋), the Low Battery message in the display area and a loud beep indicate a critically low charge. The handset will not work until the battery pack is charged.

## Remove and insert the battery pack

### To remove the battery pack

For the WLAN Handset 2210 and WLAN Handset 2212:

- 1 To release the battery pack, press down on the latch on the battery pack.

For the WLAN Handset 2211:

- 1 To release the battery pack, hold the handset in one hand, with the keys facing up.
- 2 Press both battery release buttons on the left and right sides of the handset with your other hand.

The battery pack should drop into your hand.



**Note:** Do not pry the battery out of the handset.

## To insert the battery pack

For the WLAN Handset 2210 and WLAN Handset 2212:

- 1 Slide the lower lip of the battery pack into the bottom of the handset cavity.
- 2 Push the top of the battery pack in place.

For the WLAN Handset 2211:

- 1 Slide the battery pack straight into the cavity until it snaps into place.



**Note:** Do not force the battery pack into the handset.

---

## To change the battery pack while in a call

- 1 Use Call Park to park the current call.
- 2 Quickly remove the discharged battery pack and replace it with a charged battery pack.
- 3 Press  to turn the handset back on.
- 4 Use Call Park to retrieve the parked call.

## Desktop Charger

The Nortel WLAN Handset Desktop Charger is designed to fully charge the battery packs in approximately two hours. The charger operates in a 50° to 85° F (10° to 30° C) environment. Do not expose the charger to freezing temperatures or direct sunlight.

Desktop chargers are not interchangeable. Use only the charger made for your handset.

Desktop chargers are available for the WLAN Handset 2210 and WLAN Handset 2211 only.

The following figure shows the WLAN Handset 2210 and 2211 Desktop Chargers.

**Figure 6** The WLAN Handset 2210, and WLAN Handset 2211 Desktop Chargers

The charger is shipped with the appropriate power supply for the site. Place the charger on a flat, horizontal surface. Plug the power supply into the charger and into an appropriate wall outlet.

---

**IMPORTANT!**

Do not place anything in the Desktop Charger other than the correct WLAN Handset. Doing so might damage the contacts. Bent contacts can keep the WLAN Handset from charging.

---

## Using the Desktop Charger

### To charge the WLAN Handset Desktop Charger

- 1 Press  to terminate any calls. The handset can be off or in standby mode during charging.
- 2 Place the handset, face forward, into the Desktop Charger.

The red indicator light turns on.

The indicator light does not come on when the charger slot is empty, when the handset is not inserted properly, or when the charger has no power.

- 3 Charge the battery pack.

If the handset is in standby mode, it displays its extension number and **Charging....** It is fully operational and can receive calls. If the handset is off, only **Charging...** displays and the handset cannot receive calls.

It is normal for the battery pack to become warm when charging.

- 4 When the handset is fully charged, **Charge Complete** displays. Remove the handset from the charger.

The red indicator light remains on until the handset is removed from the charger.

## Dual Charger

The Nortel WLAN Handset Desktop Chargers are designed to fully charge the handset and one spare battery pack in approximately two hours (each). The charger operates in a 50° to 85° F (10° to 30° C) environment. Do not expose the charger to freezing temperatures or direct sunlight.

Dual chargers are not interchangeable. Use only the charger made for your handset.

Dual chargers are available for the WLAN Handset 2210, WLAN Handset 2211 and WLAN Handset 2212.

The following figure shows the WLAN Handset 2211 and spare battery pack in its Dual Charger.

**Figure 7** WLAN Handset 2211 Dual Charger



The Dual Charger is shipped with the appropriate power supply for the site. Place the Dual Charger on a flat, horizontal surface. Plug the power supply into the Dual Charger and into an appropriate wall outlet.

---

### **IMPORTANT!**

Do not place anything in the Dual Charger other than the correct WLAN Handset. Doing so might damage the contacts. Bent contacts can keep the WLAN Handset from charging.

---

The handset and spare battery cannot charge simultaneously. If both require charging, the handset has priority and will recharge first. After the handset is fully charged, the spare battery will be charged.

## Using the Dual Charger

### To charge the WLAN Handset Dual Charger

- 1 Press  to terminate any calls. The handset can be off or in standby mode during charging.
- 2 Place the handset, face forward, into the handset charging bay of the Dual Charger.  
The red indicator light turns on.  
The indicator light does not come on when the charger slot is empty, when the handset is not inserted properly, or when the charger has no power.
- 3 Charge the handset battery.  
If the handset is in standby mode, it displays its extension number and **Charging....** It is fully operational and can receive calls. If the handset is off, only **Charging...** displays and the handset cannot receive calls.  
It is normal for the battery pack to become warm when charging.
- 4 When the handset is fully charged, **Charge Complete** displays. Remove the handset from the charger.  
The red indicator light remains on until the handset is removed from the charger.

### To charge a battery pack

- 1 Remove the battery from the handset, as described in [“Remove and insert the battery pack” on page 53](#).
- 2 Insert the battery pack into the battery charging bay of the Dual Charger.  
The red indicator light turns on.  
The indicator light does not come on when the charger slot is empty, when the handset is not inserted properly, or when the charger has no power.  
If the indicator light starts blinking as soon as the battery pack is inserted, remove the battery pack and reinsert it into the charger.  
If the indicator light continuously blinks during the charging process, the battery pack is unusable. Properly dispose of the unusable battery pack.
- 3 Charge the battery pack.  
It is normal for the battery pack to become warm when charging.
- 4 When charging is complete, the indicator light turns off. Remove the battery pack from the charger.

### Quad Charger

The Nortel WLAN Handset Quad Chargers fully charge up to four battery packs in approximately two hours. Chargers operate in a 50° to 85° F (10° to 30° C) environment. Do not expose them to freezing temperatures or direct sunlight.

Quad chargers are not interchangeable. Use only the charger made for your handset.

Quad chargers are available for the WLAN Handset 2211 and WLAN Handset 2212.

The Quad Charger comes with the appropriate power supply for the site. Place the Quad Charger on a flat, horizontal surface. Plug the power supply into the Quad Charger and into an appropriate wall outlet.

---

**IMPORTANT!**

Do not place anything in the Quad Charger other than the correct WLAN Handset. You might damage the contacts. Bent contacts can keep the battery packs from charging.

---

## Using the Quad Charger

### To charge the battery pack

- 1 Remove the battery pack from the handset, following the steps in [“To remove the battery pack” on page 53](#).
- 2 Insert the battery pack into one of the four charging bays.  

The LED above the charging bay turns on. If the LED starts blinking as soon as the battery pack is inserted, remove the battery pack and reinsert it into the charger.

If the LED continuously blinks during the charging process, the battery pack is unusable. Properly dispose of the unusable battery pack.
- 3 When charging is complete, the LED turns off. Remove the battery pack from the charger.

## Cleaning the Desktop, Dual or Quad Chargers

Clean the Desktop, Dual or Quad Charger by wiping the surface with a clean, water-dampened cloth or paper towel. A mild detergent solution can be used. Be sure to wipe away any detergent residue with a plain water-dampened cloth.



**CAUTION**

Unplug the charger before attempting to clean it.  
Do not immerse the charger in water or other liquid.  
Do not pour liquids into the charger slot.

---

## Cleaning the WLAN Handset contacts

The battery pack contacts on the WLAN Handset can be cleaned with isopropyl (rubbing) alcohol applied with a cotton swab, cloth, or paper towel. Do not push or pull the exposed battery pack contacts.

---

### IMPORTANT!

- Always use the Desktop Charger provided to charge the battery pack. Other chargers can damage the battery pack.
  - Only use the original plug-in power adapter for the Desktop Charger.
  - Do not dip the battery pack in water or throw into the fire.
  - Do not dispose of the battery pack with your domestic waste. Take used battery packs to an appropriate collection point for recycling or send them back to your supplier or servicing agent.
  - Replacement battery packs are available from your supplier or servicing agent.
- 

## Accessories

Optional accessories for the handset are:

- carrying case
- belt clip

For further information, consult the documentation supplied with the accessory.



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