



# FortiFone™ User Guide for FON-260i



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# Introduction

## Phone Features

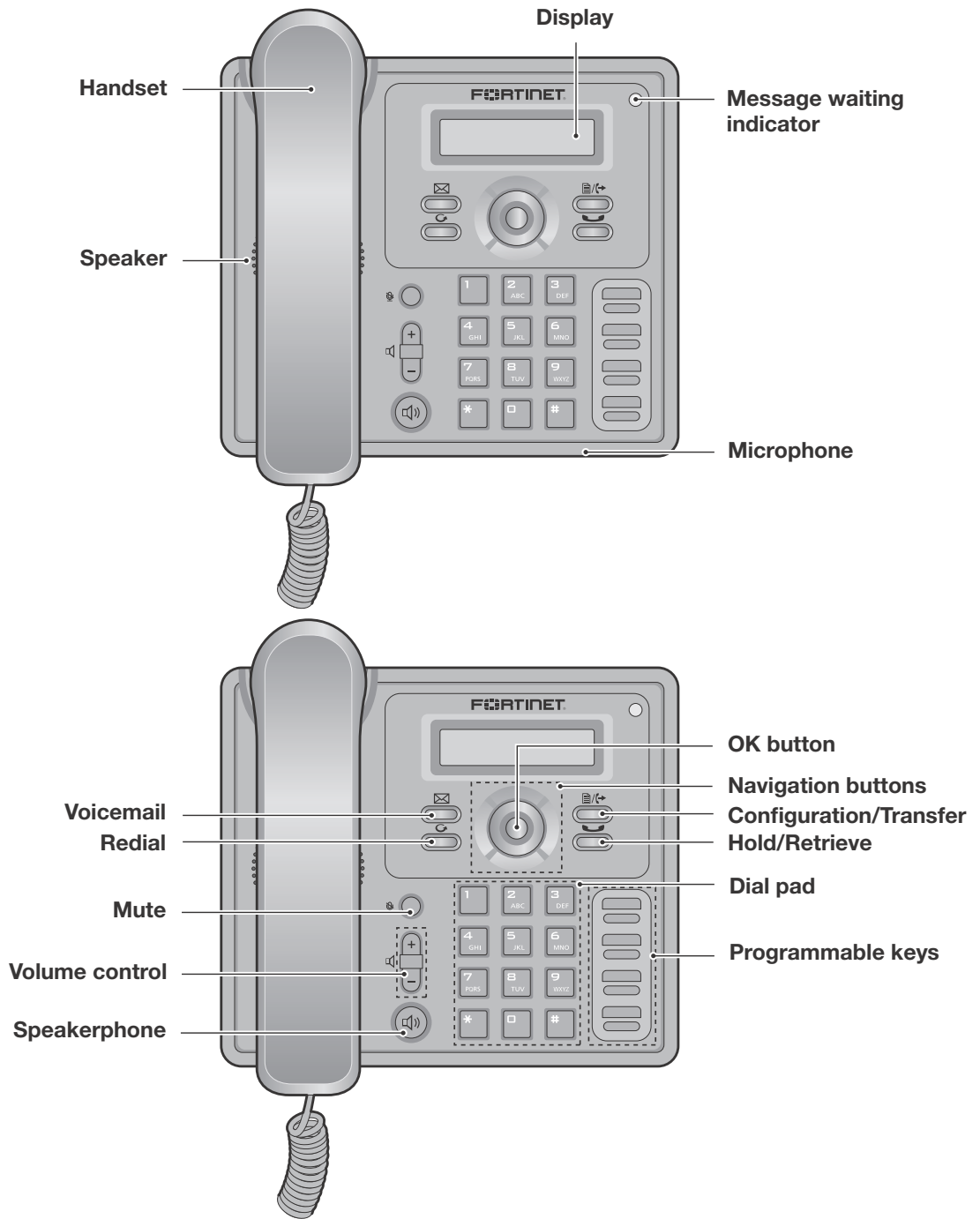
- A 2.5" x 0.75" display
- 4 programmable keys
- Message waiting with indicator lamp and tone
- Full duplex speakerphone
- Intercom paging
- Built-in two-port, 10/100 Ethernet switch. Lets you share a connection with your computer.










## Requirements

- SIP-based phone system such as the FortiVoice™ series of phone systems or alternate VoIP service provider.
- Ethernet or fast Ethernet network for connection
- Use only the power supply designed for the region you intend to use the product. This adapter is rated with an output of 5.1v DC at 0.7 A.



**Figure 1: Phone front**



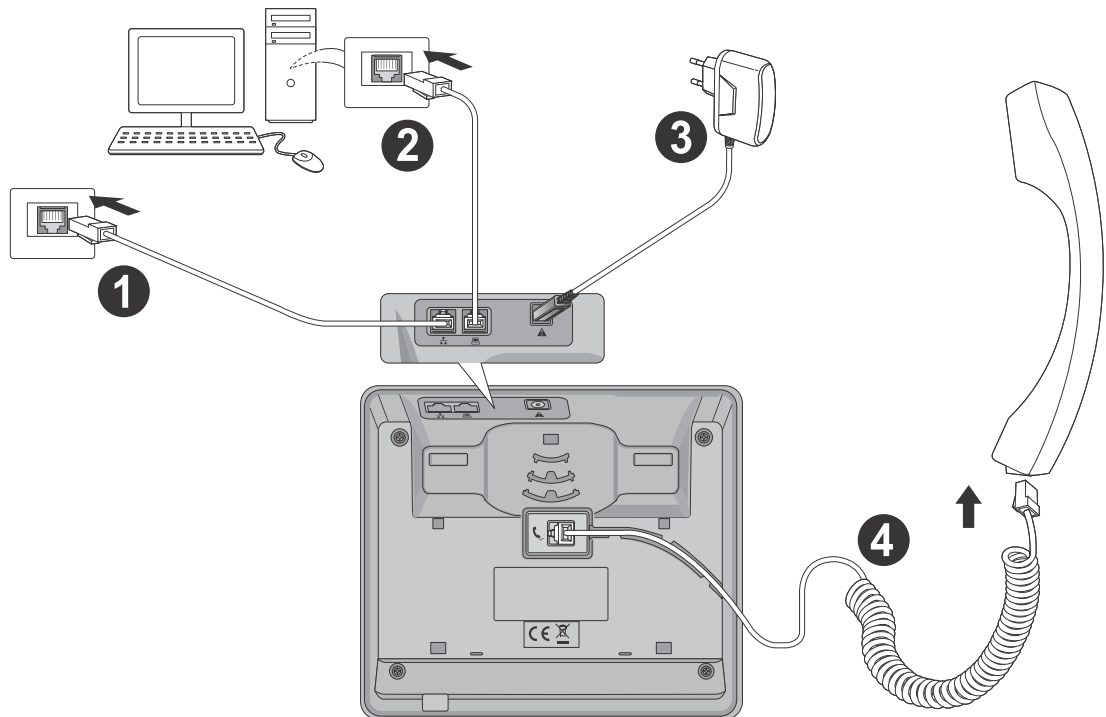
Item	Function
	<i>Voicemail</i> – access voicemail and change greetings.
	<i>Redial</i> – dial the last number dialed.
	<i>Mute</i> – toggle the microphone on and off during calls. While in the <i>Configuration</i> menu, use to toggle between letters and numbers.
	<i>Volume control</i> – adjust ring, handset, and speaker volume.
	<i>Speakerphone</i> – engage the speakerphone and hang up after the call.
	<i>Navigation buttons and OK button</i> <i>Left</i> – use to view previous menu in the <i>Configuration</i> menu. <i>Right</i> – use to view next menu in the <i>Configuration</i> menu. <i>Up</i> – use to view Call Log when phone is idle. <i>Down</i> – use to view Phone Book while phone is idle. <i>OK</i> – center button, use to select current item or save value in <i>Configuration</i> menu.
	<i>Configuration/Transfer</i> – use to transfer an active call. When the phone is not in use, pressing this button accesses the menu for making changes to the IP phone configuration.
	<i>Hold/Retrieve</i> – place or retrieve a call on hold.
	<i>Programmable keys</i> – program as function and speed dial keys.

# Installation

## Connecting the Phone

The figure below shows the cable connections for your phone. The LAN and desktop PC connections employ standard Ethernet cables terminated with RJ-45 connectors.


**Figure 2:** Phone connections





		Wiring Chart
1	<b>LAN</b>	Connect the LAN port to the network with the provided Ethernet cable.
2	<b>PC</b>	Optionally connect your desktop PC to the PC port on the phone with an Ethernet cable (not supplied).
3	<b>Power</b>	Connect the power adapter to the power jack on phone.
4	<b>Handset</b>	Connect the curly cord to the handset and the handset jack on the phone.

# Setting up your Phone

## As an internal IP extension

1. Configure an extension in the phone system. For further details on configuring extensions, see your system's administration guide.
2. Reboot the phone by pressing the  button. Select 9. *Reboot Phone*.  
The phone will display the extension number and name when registered.

## As an external IP extension

1. Press the  button.
2. Select 3. *Phone Settings*. Press the *OK* button.
3. Select 6. *Firmware Update*. Press the *OK* button.
4. Select 2. *TFTP Server Address*. Press the *OK* button.
5. Enter the public IP address or FQDN of your system, then press the *OK* button.
6. Press the  button to exit the configuration. Press the *OK* button to reboot the phone.



If the phone still says “Not Registered” after 30 seconds, see [“Troubleshooting” on page 59](#).


If you encounter problems, ensure the appropriate ports are forwarded from the firewall to the FortiVoice system. For more information, see the [FortiVoice User Guide](#).

---

# Configuring your Phone

## How to Navigate through Menus

To access the configuration menu:

- Press the  button.






To select an item:

- Dial the digit associated with the menu item or
- Use the *Up/Down* navigation buttons to move the cursor to the next item, then press the *OK* button to select an option.

To return to a previous branch in the menu, press the *Left* navigation button.



To exit the configuration menu, press the  button.


## Entering Values with the Dial Pad and Softkeys

Use the dial pad to input numbers, letters, special characters, and a period. Selecting the  button switches the dial pad mode. The dial pad mode displays in the upper right corner of the display as  for numeric,  for upper case characters,  for lower case characters and  for special characters.



To enter characters with the dial pad, press the same digit repeatedly until the desired character appears in the display. After entering a character, pause to allow the cursor to move to next character position.

Other special entries include:




- To enter a period or dot (for example, to input an IP address), press  on the dial pad.
- To delete a letter in front of the cursor, press the *Left* navigation button.
- To enter a space, press  on the dial pad.

Prior to saving an entry, you may discard changes by pressing the  button to exit the *Settings* menu.


## Setting a Hunt Group as an Access Code Prefix

If you need to dial  or  to access an outside line, then you will want to program your phone to automatically insert a hunt group number before all calls placed from the Missed and Received call logs as well as from the Phone Book.

To set an Access Code:

- Press the  button.
- Press  to enter the *Call Preferences* menu.
- Press  to enter the *Access Code Prefix* menu.
- Enter the hunt group you normally use to place outgoing calls (example: 9), then press the *OK* button.

## Configuration Overview

The phone supports the access and configuration of many parameters directly from the Telephone User Interface. To access the *Configuration* menu, press the  button while the phone is not in use.

The configuration menu consists of several sub menus as listed below:

1. *Network Configuration*
2. *SIP Configuration*
3. *Phone Settings*
4. *Call Preferences*
5. *Directory*
6. *Set to Defaults*
7. *Lock/Unlock Config*
8. *Information*
9. *Reboot Phone*

## Network Configuration

The *Network Configuration* menu allows configuration of the network parameters for the phone.





After any network configuration changes, you will receive a reboot notice. Changing network parameters requires a reboot of the phone before the new values can be used. Networking parameters can only be changed when the network mode is set to *Static*.

### Network Mode

The phone is capable of obtaining all of its IP configuration data from a DHCP server. When a DHCP server is not available, static address parameters can be used. Selecting *Static* requires the manual entry of other several network parameters including:

- IP address of the phone
- Default gateway IP address
- Subnet mask
- DNS address



To set the Network Mode:

- Press the  button, select *1. Network Configuration* then press the *OK* button.
- Select *1. Network Mode* then press the *OK* button.
- Select the Network Mode then press the *OK* button to save your selection.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.

## IP Address

Assigning a static address for the Network Mode requires manual entry of an IP address and other parameters stated in the previous section. The phone *requires* a valid available IP address for proper operation.



To set the IP Address:

- Press the /↔ button, select *1. Network Configuration* then press the *OK* button.
- Select *2. IP Address* then press the *OK* button.
- Input the IP Address using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

## Subnet Mask

Selecting static addressing for the Network Mode requires manual entry of a subnet mask. The IP phone requires a valid subnet for proper operation.



To enter the Subnet Mask:

- Press the /↔ button, select *1. Network Configuration* then press the *OK* button.
- Select *3. Subnet Mask* then press the *OK* button.
- Input the Subnet Mask using the dial pad and press the *OK* button to save your configuration.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

## Default Gateway

Selecting static addressing for the Network mode requires manual entry of a default gateway address. The IP Phone requires a valid default gateway address for proper operation.



To assign the Default Gateway address:

- Press the /↔ button, select *1. Network Configuration* then press the *OK* button.
- Select *4. Default Gateway* then press the *OK* button.
- Input the Default Gateway IP address using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

## Primary DNS Address

Using an FQDN (Fully Qualified Domain Name) for any of the servers in the IP phone configuration, requires entry of a primary DNS IP address. The IP phone contacts the primary DNS server to resolve the FQDN to an IP address.



To assign the Primary DNS Address:

- Press the /↔ button, select *1. Network Configuration* then press the *OK* button.
- Select *5. Primary DNS Address* then press the *OK* button.
- Input the Primary DNS Address using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

## Secondary DNS Address



Should the primary not respond, the phone will use the secondary DNS for FQDN resolution. This is an optional but recommended setting.

To assign the Secondary DNS Address:

- Press the  button, select *1. Network Configuration* then press the *OK* button.
- Select *6. Secondary DNS Address* then press the *OK* button.
- Input the Secondary DNS Address using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.

## MAC Address

To view the MAC address assigned and used by the phone:

- Press the  button, select *1. Network Configuration* then press the *OK* button.
- Select *7. MAC Address* then press the *OK* button.
- The MAC address of the phone will be visible and should match the one listed on the label on the bottom of the phone.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.

## VLAN Settings

VLAN settings define the Ethernet frame priority and VLAN identification in accordance with IEEE 802.1p/Q standards. Separate VLAN tags are assigned for the IP phone PC port and the LAN (voice) port. With a VLAN ID assigned, only frames with the assigned ID are accepted, and all SIP and voice frames sent by the phone include the VLAN ID assigned to the LAN port.



For proper operation, other network elements (LAN switches and default gateway) must support and be configured with proper VLAN parameters.

VLAN settings are overwritten if CDP is enabled.

Changing the VLAN parameters requires a reboot of the IP phone. When you exit the menu, you will receive a reboot notice. The phone must be rebooted to use the new values.



---



## VLAN Priority (LAN)

The VLAN Priority (LAN) establishes the priority for Ethernet frames from the LAN port including signaling and voice packets. Setting the VLAN ID to zero (0) disables VLAN framing and the IP phone uses only standard Ethernet frames.

To assign VLAN Priority for the LAN (voice) port:

- Press the  button, select *1. Network Configuration* then press the *OK* button.
- Select *8. VLAN Settings* then press the *OK* button.
- Select *1. VLAN Priority (LAN)* then press the *OK* button.
- Input the VLAN Priority for the LAN port using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.



Changing the VLAN Priority requires a reboot of the IP phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

The recommended value for VLAN Priority (LAN) port is 5.



To disable VLANs, assign the VLAN ID as zero (0).

---

## VLAN ID (LAN)

The VLAN ID (LAN) assigns the identification for Ethernet frames for the phone LAN port including signaling and voice payloads. Setting the VLAN ID to zero (0) disables the VLAN framing and the IP phone and uses only standard Ethernet frames.

To assign the VLAN ID for the LAN (voice) port:

- Press the  button, select *1. Network Configuration* then press the *OK* button.
- Select *8. VLAN Settings* then press the *OK* button.
- Select *2. VLAN ID (LAN)* then press the *OK* button.
- Input the VLAN ID for the LAN port using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.



Changing the VLAN ID requires a reboot of the phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.



To disable VLANs, assign the VLAN ID as zero (0).

---

## VLAN Priority (PC)

The VLAN Priority (PC) establishes the priority for Ethernet frames for the phone PC port. Setting the VLAN ID to zero (0) disables VLAN framing and the phone will use only standard Ethernet frames.

To assign the VLAN Priority for the PC port:

- Press the  button, select *1. Network Configuration* then press the *OK* button.
- Select *8. VLAN* then press the *OK* button.
- Select *3. VLAN Priority (PC)* then press the *OK* button.
- Input the VLAN Priority for the PC port using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.



Changing the VLAN Priority requires a reboot of the phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

To disable VLANs, assign the VLAN ID as zero (0).



The recommended value for the VLAN Priority for the PC port is 3.

---

## VLAN ID (PC)

The VLAN ID (PC) assigns the identification for Ethernet frames for the phone PC port. Setting the VLAN ID to zero (0) disables VLAN framing and the phone will only use standard Ethernet frames.

To assign the VLAN ID (PC) port:

- Press the  button, select *1. Network Configuration* then press the *OK* button.
- Select *8. VLAN Settings* then press the *OK* button.
- Select *4. VLAN ID (PC)* then press the *OK* button.
- Input the VLAN ID (PC) port using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.



Changing the VLAN ID (PC) requires a reboot of the phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

To disable VLANs, assign the VLAN ID as zero (0).

---

## SIP Configuration

The *SIP Configuration* section contains parameters related to SIP accounts, and other parameters that allow the phone to register.



### SIP Configuration, Line Configuration

Assign parameters in this section for each SIP line.

#### SIP Server Address


The SIP Server Address is the IP address or FQDN of the SIP server or PBX.

To assign the SIP Server address:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *1. Line Configuration* then press the *OK* button.
- Select *1. SIP Server Address* then press the *OK* button.
- Input the SIP Server Address or FQDN using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





Changing the SIP Server Address requires a reboot of the phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

#### Proxy Port

The Proxy Port defines the UDP port number employed for SIP signaling transport. In common practice, the port number 5060 is used.

To change the Proxy Port number:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *1. Line Configuration* then press the *OK* button.
- Select *2. Proxy Port* then press the *OK* button.
- Input the Proxy Port number using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





Changing the Proxy Port requires a reboot of the phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.


## Display Name

When assigned, the Display Name is used in SIP calls as the Caller ID name.

To enter the Display Name:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *1. Line Configuration* then press the *OK* button.
- Select *3. Display Name* then press the *OK* button.
- Input the Display Name using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

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## User Name


A User Name (extension or phone number) is required for proper operation and must match the user ID or account assigned in the SIP server. This is usually the number dialed to reach this line on the phone.

To enter the User Name:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *1. Line Configuration* then press the *OK* button.
- Select *4. User Name* then press the *OK* button.
- Input the Name using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.



Changing the User Name requires a reboot of the phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.



To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

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## Authentication User Name


A user name is required to authenticate a line.

To assign the Authentication User Name:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *1. Line Configuration* then press the *OK* button.
- Select *5. Auth. Username* then press the *OK* button.
- Input the Authentication User Name, as is specified in the SIP server, using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





Changing the Authentication User Name requires a reboot of the phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

## Authentication Password


Authentication of the line with the SIP call server requires an Authentication Password in conjunction with the User Name.

To assign the Authentication Password:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *1. Line Configuration* then press the *OK* button.
- Select *6. Auth. Password* then press the *OK* button.
- Input the Authentication Password using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





Changing the Authentication Password requires a reboot of the phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

## Registration Status

The status of the line registration with the SIP call server can be viewed from this menu. The status is displayed as *OK*, *NOK* (Not registered) or *undefined* (not assigned).

To view the Registration status for a line:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *1. Line Configuration* then press the *OK* button.
- Select *7. Reg. Status* to view the status.
- The status is actually shown next to the menu title.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.



## SIP Configuration, General Parameters

Parameters in this section are required for the overall SIP operation of the phone.

### Outbound Proxy Address


If required, an Outbound Proxy Address can be defined so that the phone sends all SIP requests to the proxy instead of the SIP server configured in the section “[SIP Server Address](#)” on page 12. The address can be an IP address or FQDN.

To assign an Outbound Proxy Address:

- Press the /↔ button, select *2. SIP Configuration* then press the *OK* button.
- Select *2. Outbound Proxy Addr.* then press the *OK* button.
- Input the Outbound Proxy Address using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.





Changing the Outbound Proxy Address requires a reboot of the phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

---

### Outbound Proxy Port

With the Outbound Proxy Server defined, the associated port must be defined as the Outbound Proxy Port. All SIP requests are sent to the assigned port instead of the proxy port configured in the section “[Proxy Port](#)” on page 12.

- To assign the Outbound Proxy Port:
- Press the /↔ button, select *2. SIP Configuration* then press the *OK* button.
- Select *3. Outbound Proxy Port* then press the *OK* button.
- Input the Outbound Proxy Port using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.





Changing the Outbound Proxy Port requires a reboot of the IP phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

---

## Backup Proxy Address


When using an outbound proxy, a backup proxy can be defined for use should the primary proxy fail to respond. The Backup Proxy Address can be an IP address or FQDN.

To assign a Backup Proxy Address:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *4. Backup Proxy Address* then press the *OK* button.
- Input the Backup Proxy Address using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





Changing the Backup Proxy Address requires a reboot of the IP phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

## Backup Proxy Port

The Backup Proxy Port defines the port used when sending SIP messages to the backup proxy defined in the section “[Backup Proxy Address](#)” on page 16.

- To assign the Backup Proxy Port:
- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *5. Backup Proxy Port* then press the *OK* button.
- Input the Backup Proxy Port using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





Changing the Backup Proxy Port requires a reboot of the IP phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

## Local UDP Port

The Local UDP Port defines the port, normally 5060, that the phone uses to send and receive SIP signaling packets. In some instances, particularly when behind a firewall, port 5060 may already be in use or problematic with SIP aware routers.

To change the Local UDP Port:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *6. Local UDP Port* then press the *OK* button.
- Input the Local UDP Port using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





Changing the Local UDP Port requires a reboot of the IP phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

## RTP Start Port

When a SIP call is established, Real-Time Transport Protocol (RTP) packets transport media (voice). The default port used for RTP packets is 23000.

To change an RTP Start Port:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *7. RTP Start Port* then press the *OK* button.
- Input the RTP Start Port using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





Changing the RTP Start Port requires a reboot of the IP phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.

---

## Proxy Registration

If Proxy Registration is set to *Yes*, the phone will register with the appropriate SIP or proxy server upon initial power-up, during a reboot and at periodic intervals based on the timer defined by the server.

To enable Proxy Registration:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *8. Proxy Registration* then press the *OK* button.
- To change, select *Yes* or *No* using the *Up/Down* navigation buttons, then press the *OK* button.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.



Changing the Proxy Registration requires a reboot of the IP phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.



---



## Registration Expiry

To ensure a regular connection, the phone periodically re-registers with the proxy or SIP server. Unless defined by the host server during registration, the Register Expires timer determines the interval between registration attempts and can be set from 0 to 86400 seconds. The default is 3600 seconds (1 hour).

To modify the Registration Expires timer:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *9. Register Expires* then press the *OK* button.
- Input the registration expiration time using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





Changing the Registration Expiry requires a reboot of the IP phone. When you exit the menu, you will receive a reboot notice. Press the *OK* button to reboot. The IP phone must reboot to utilize the new values entered.


## Voicemail URL

The Voicemail URL is used to access the voicemail of a host service or PBX. If not configured by the host service or PBX, then it should be configured accordingly.

To assign the Voicemail URL:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *10. Voicemail URL* then press the *OK* button.
- Input the Voicemail URL using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

## Domain


The Domain specifies the domain for SIP service when the provider desires to use a specific SIP domain for the phone.

To assign the Domain:

- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *11. Domain* then press the *OK* button.
- Input the Domain name using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





Changing the Domain requires a reboot of the IP phone. When you exit the menu, you will receive a reboot notice. The IP phone must reboot to utilize the new values entered.


To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

## STUN Server

When the phone is located behind NAT and a STUN server is required, enter a STUN server IP address or FQDN to enable this feature that helps traverse firewalls in limited conditions.



- To assign a STUN server:
- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *12. Stun Server* then press the *OK* button.
- Input the Stun Server using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.




To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

## STUN Port

When the phone is located behind NAT and a STUN port is required, enter a STUN port or FQDN to enable this feature that helps traverse firewalls in limited conditions.

- To assign a STUN port:
- Press the  button, select *2. SIP Configuration* then press the *OK* button.
- Select *13. Stun Port* then press the *OK* button.
- Input the Stun Port using the dial pad and press the *OK* button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.



To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

## Phone Settings



Under the *Phone Settings* menu item, the user parameters listed below can be changed.

- 1 – LCD Contrast
- 2 – Ring Settings
- 3 – Disable Ringer
- 4 – Flexible Key Settings
- 5 – Time Configuration
- 6 – Firmware Update
- 7 – Speed Dial Number
- 8 – Key Tone
- 9 – Language

## LCD Contrast

The contrast of the LCD is adjustable for best viewing angle.



To adjust the LCD contrast:

- Press the  button, select 3. *Phone Settings* then press the *OK* button.
- Select 1. *LCD Contrast* then press the *OK* button.
- Press the *Down* navigation button to decrease the contrast, or press the *Up* navigation button to increase the contrast.
- Press the *Left* navigation button to save your entry.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.

## Ring Settings

The IP phone has 4 ring tones (Ring Types) and a no ring (Disable Ringer) option for incoming call notification. There is also the option to assign each phone book record one of the ring tones for inbound calls. The *Default Ring Tone* is used when a ring tone is *Set as Default* or not defined for a line or phone book record.



### Ring Setting

- To adjust the Ring Type for a line:
- Press the  button, select 3. *Phone Settings* then press the *OK* button.
- Select 2. *Ring Settings* then press the *OK* button.
- Select the Ring Type using the *Down* navigation button to hear the selected tone, then press the *OK* button to save the selection.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.

## Disable Ringer

The phone can be programmed not to ring when an incoming call is received. It will still light up the LCD, light up the Incoming Call Indicator and show the Caller ID.

To disable the ringer:

- Press the  button, select 3. *Phone Settings* then press the *OK* button.
- Select 3. *Disable Ringer* then press the *OK* button.
- Using the navigation buttons, select *Yes* to turn the ringer off, or *No* to leave the ringer enabled. Press the *OK* button.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.

## Programmable Key Settings

Programmable keys can be programmed to access one of several functions. They include Phone Book access, System and Personal Speed Dial, Park, Unpark, Call Pickup (any or specific extension), Intercom Page and Group Page. These keys are configured via the FortiVoice management software except for setting a key for Speed Dial use. This can be programmed via the phone interface or phone's web interface.



Local settings will be overridden by the FortiVoice settings when a configuration file is downloaded to the phone if the key was not configured by the administrator as *User Defined*.

---

## Time Configuration

Within the *Time Configuration* menu, the IP Address or FQDN of the desired Simple Network Time Protocol (SNTP) server and the local time zone are defined. In addition, Daylight Saving Time (DST) is enabled. These settings are all automatically configured by the FortiVoice phone system and do not require manual configuration.



## Firmware Update

When performing a firmware update, refer to the FortiVoice phone system management software.

## Speed Dial Number

The phone includes a Directory Phone Book of Speed Dial numbers that supports up to 100 entries. Each phone book record includes a speed dial number consisting of two digits. Dialing the speed dial number (00–100) and pressing the *Dial* softkey places a call using the contact information from the associated phone book record.

To enable/disable Speed Dial Number operation:

- Press the  button, select *3. Phone Settings* then press the *OK* button.
- Select *7. Speed Dial Number* then press the *OK* button.
- Using the navigation buttons, select *Yes* to enable the Speed Dial Number, or *No* to disable the Speed Dial Number. Press the *OK* button.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.



When enabled, dialing an empty Speed Dial Number terminates the call and the empty status of the Speed Dial Number displays for approximately 2 seconds.

## Key Tone

If desired, a tone can be played when a button on the phone is pressed.

To enable/disable the Key Tone:

- Press the /↔ button, select *3. Phone Settings* then press the *OK* button.
- Select *8. Key Tone* then press the *OK* button.
- Using the navigation buttons, select *Yes* to enable the Key Tone, or *No* to disable the Key Tone. Press the *OK* button.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

## Language

The phone ships with 3 supported languages — English, Spanish and French. The default language is English. Languages are configured by the administrator in the FortiVoice Management software for the extension. Please contact your administrator.

## Call Preferences

Call Preferences define various call handling features of the phone.

### Do Not Disturb

When the DND (Do Not Disturb) feature is active, the phone does not notify the user of an incoming call. The phone system configuration determines routing of the incoming call while your phone is in DND mode.

To enable the DND operation:

- Press the /↔ button, select *4. Call Preferences* then press the *OK* button.
- Select *1. Do Not Disturb* then press the *OK* button.
- Using the navigation buttons, select *On* to enable DND, or *Off* to disable DND. Press the *OK* button.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

### Call Waiting

With Call Waiting configured for a FortiVoice extension, notification of a new incoming call is indicated via several methods. The line button flashes to indicate the new call, and an optional beep tone is delivered over the existing conversation. In addition, the LCD displays the incoming Caller ID during the notification.

If Call Waiting is disabled, the phone will return a busy status to the phone system and it will handle the call accordingly. By default, Call Waiting is enabled on all phones.



To enable/disable Call Waiting:

- Press the /↔ button, select *4. Call Preferences* then press the *OK* button.
- Select *2. Call Waiting* then press the *OK* button.
- Using the navigation buttons, select *On* to enable Call Waiting, or *Off* to disable Call Waiting. Press the *OK* button.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

## Call Waiting Tone

While in a call, the phone can provide a tone over the existing conversation to indicate a call waiting. To receive the tone, Call Waiting must also be enabled.



To enable/disable Call Waiting Tone:

- Press the /↔ button, select *4. Call Preferences* then press the *OK* button.
- Select *3. Call Waiting Tone* then press the *OK* button.
- Using the navigation buttons, select *On* to enable Call Waiting Tone, or *Off* to disable Call Waiting Tone. Press the *OK* button.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

## Call Hold Ringback

With Call Hold Ringback enabled, the phone rings if the first call is placed on hold then a second call is taken and terminated by hanging up the phone. It is a reminder that there is still a call on hold.




To enable/disable Call Hold Ringback:

- Press the /↔ button, select *4. Call Preferences* then press the *OK* button.
- Select *4. Call Hold Ringback* then press the *OK* button.
- Using the navigation buttons, select *On* to enable Hold Ringback, or *Off* to disable Hold Ringback. Press the *OK* button.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

## Message Waiting Tone

When the notification of a new message is received, the Message LED flashes. As an option, a brief “stutter” dial tone will provide an audible indication for a message waiting when going off hook to place calls.

To enable/disable stutter dial tone for a message wait indication:

- Press the /↔ button, select *4. Call Preferences* then press the *OK* button.
- Select *5. Msg Waiting Tone* then press the *OK* button.
- Using the navigation buttons, select *On* to enable the stutter dial tone, or *Off* to disable the stutter dial tone. Press the *OK* button.
- Press the *Back* softkey or the /↔ button to exit the menu.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

## Auto Answer

When idle, the phone can automatically connect an incoming caller to the speakerphone or headset.

To enable/disable Auto Answer:

- Press the /↔ button, select 4. *Call Preferences* then press the *OK* button.
- Select 6. *Auto Answer* then press the *OK* button.
- Using the navigation buttons, select *On* to enable Auto Answer, or *Off* to disable Auto Answer. Press the *OK* button.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

## Anonymous Call Block

The phone can block incoming calls with an anonymous caller ID.

To enable/disable Anonymous Call Blocking:

- Press the /↔ button, select 4. *Call Preferences* then press the *OK* button.
- Select 7. *Anonymous Call Block* then press the *OK* button.
- Using the navigation buttons, select *On* to enable Anonymous Call Block, or *Off* to disable Anonymous Call Block. Press the *OK* button.
- Move to another parameter with the navigation buttons and continue the session or press the /↔ button to exit the configuration session.

## Directory

### Phone Book

The phone includes an internal Phone Book of names and numbers or SIP user IDs for up to 100 contacts. The *Phone Book* menu is accessed through the *LCD* menu with the *Down* navigation button in idle state or, when assigned, a Phone Book flexible button.

The *Phone Book* menu displays records may be added, edited, deleted or searched through the Web Manager. Each contact can have a ring type assigned. When a call is received from the contact, the specified ring signal is used to override the default ring type.

### Adding a Phone Book Record

To simplify the addition of many contacts to the Phone Book, a comma delimited contact list file can be uploaded directly to the phone using the web interface. A template is available within the Phone Book section of the web interface.

## Loading a Contact List using a Web Browser

The contact list must use the following format:

*SpeedNumber,Name,PhoneNumber,Information (optional),RingType*


Example:

```
SpeedNumber,Name,PhoneNumber,Information,1
1,Joe Smith,5555555555,Head Office,Off
2,Jane Mbete,5555555555,Ottawa,1
3,Samantha Park,8883331234,2
4,Scott Duff,8004441111,sduff@example.com,4
```




- The file **must** be saved in .csv format.
- The phone number field cannot contain spaces, dashes, decimals or other characters. Only use numbers.
- If a single digit is specified under the SpeedNumber column, then it will automatically be prepended with 0. Example: 1 will be stored as speed dial 01.
- The number of entries cannot exceed 80.
- An optional header can be included at the beginning of the CSV file as shown above. It is not required.
- The Ring Type options are 1 through 4, off and default.

To load a CSV file to a phone from a PC located on the same LAN as the phone:


- Log in to the phone via a web browser. To check the IP address of the phone, press the  button, then select 8. *Information*. The IP address of the phone will be visible. Write it down.
- From a web browser, enter the IP address of the phone in the address bar.  
Example: `http://192.168.1.111`
- Click on *Login*.
- Enter the user name and password as required. User name: `admin`, Password: `23646`.
- Once logged in, select *Phone Book* from the left navigation area.
- Click on the *Browse...* button and locate the CSV file for upload to the phone.
- Once selected, click the *Upload* button. Once uploaded, the new data should be visible in the Phone Book table.
- Check all entries to ensure they are properly imported. If the file did not upload, please check the file contents to ensure no conditions exist that might cause the phone to reject the file.



## To add entries to the Phone Book using the telephone interface

- Press the  button, select 5. *Directory*, then press the *OK* button.
- Select 1. *Phone Book*, then press the *OK* button.
- Press the *OK* softkey twice to scroll to the additional softkey options.
- Select *Add* using the *Up/Down* navigation buttons, then press the *OK* button.
- Enter a name for the new contact, then press the *OK* button.
- Enter a phone number, then press the *OK* button.
- Select the Ring tone to use when receiving a call from this contact, then press the *OK* button.
- Enter a Speed Number (00–79), then press the *OK* button.
- The phone adds the new contact to the Phone Book and returns to the Phone Book list.




To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.


If no ring tone is defined for a Phone Book entry, the default ring tone is used.

## Editing a Contact

If logged in via the web interface, then click the *Modify* button next to the contact you wish to edit, then change the information as required and save.

- To edit a Phone Book contact from the phone:
- Press the  button, select 5. *Directory* then press the *OK* button.
- Select 1. *Phone Book* then press the *OK* button.
- Select a contact to edit using the *Up* and *Down* navigation buttons, then press the *OK* button.
- Select *Edit* using the *Up/Down* navigation buttons, then press the *OK* button.
- If required, edit the name of the contact and press the *OK* button.
- If required, edit the name of the contact, and press *OK* button.
- Select the Ring Tone to use when receiving a call from this contact and press the *OK* button.
- If required, enter a new Speed Dial Number for the contact and press the *OK* button.




To enter alphanumeric characters select the  button. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” on page 61 for the character mapping of dial pad digits.

If no ring tone is defined for a Phone Book entry, the default ring tone is used.

## Deleting a Phone Book Record

To delete a Phone Book record:

- Press the  button, select 5. *Directory* then press the *OK* button.
- Select 1. *Phone Book* then press the *OK* button.
- Select a contact to delete using the *Down* navigation button, then press the *OK* button.
- Select *Delete* using the *Up/Down* navigation buttons, then press the *OK* button.
- Confirm by selecting the *OK* button.




This action deletes the record from the Phone Book.

---


## Deleting All Records

To delete all Phone Book records:


- Press the  button, select 5. *Directory* then press the *OK* button.
- Select 1. *Phone Book* then press the *OK* button.
- Select *DelAll* using the *Up/Down* navigation buttons, then press the *OK* button.
- Press the *OK* button to confirm deletion of all contacts or the *Left* navigation button to retain the contacts and return to the Phone Book.

## Searching the Phone Book

To search for the Phone Book using either Name or Number:

- Press the  button, select 5. *Directory* then press the *OK* button.
- Select 1. *Phone Book* then press the *OK* button.
- Select *Find* using the *Up/Down* navigation buttons, then press the *OK* button.
- Input a search keyword, then press the *OK* button.
- The search result displays showing the Speed Number Name and number.




To enter alphanumeric characters select the  button to toggle between letters and numbers. Refer to “[Appendix B. Character Table for Dial Pad Mode](#)” for the character mapping of dial pad digits.

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## Dialing from the Phone Book

To dial a number from the Phone Book:

- Press the  button, select 5. *Directory* then press the *OK* button.
- Select 1. *Phone Book* then press the *OK* button.
- Select a contact to dial using the *Up/Down* navigation buttons, then press the *OK* button.
- Select *Dial* using the *Up/Down* navigation buttons, then press the *OK* button.

To dial a contact using a flexible button programmed for Phone Book access:

- Press the button while the phone is idle.
- Select a contact to dial using the *Up/Down* navigation buttons, then press the *OK* button.
- Select *Dial* using the *Up/Down* navigation buttons, then press the *OK* button.

## Call Log


The phone stores logs to track inbound and outbound calls. There are 3 separate logs that support 100 entries each. The memory for the logs is circular so if the logs are not cleared when the capacity reaches 100, the oldest entries are automatically overwritten by new entries.

Missed Calls stores any calls that were unanswered.

Received Calls stores calls that were answered.

Outgoing Calls stores all calls placed from this phone.

To access the Call Logs:

- Press the *Up* navigation button while the phone is idle.
- Alternatively, press the  button, select 5. *Directory* then press the *OK* button.
- Select 2. *Call Log* then press the *OK* button.
- Press **1** to access *Missed Calls*, **2** to access *Received Calls* or **3** to access *Outgoing Calls*.

### Dialing from a Log

Calls can be made directly from the logs. In the case of the Missed and Received call logs, the Access Code Prefix is automatically inserted if configured. This is important if you normally are required to dial a hunt group to access an outside line. For the Outgoing Calls log, the number is dialed exactly as shown.

To dial from a log:

- While viewing an entry, press the *OK* button then select *Dial*.

### Deleting (single or all entries)

To delete a single entry:

- While viewing an entry, press the *OK* button, then select *Delete*.
- Press the *OK* button to delete the entry or the *Left* navigation button to keep the entry.



To delete all entries:

- While viewing an entry, press the *OK* button, then select *Del All*.
- Press the *OK* button to delete the entire log or the *Left* navigation button to keep the log.


## Set to Defaults

If required, the phone configuration can be returned to the original factory default settings.

To return to the default configuration:

- Press the  button, select 6. *Default* and press the *OK* button.
- Press the *OK* button to set the phone to factory defaults.
- Move to another parameter with the navigation buttons and continue the session or press the  button to exit the configuration session.





Defaulting the phone requires a reboot. When you leave the menu you will receive a reboot notice. The configuration will not use default values until the phone is rebooted. If looking to re-register the phone that has been preconfigured as an extension to a FortiVoice system on the same LAN, reboot the phone again by pressing the  button, select 9. *Reboot*. Press the *OK* button to reboot the phone.

Returning the phone to factory defaults deletes all previous customized settings.

## Lock/Unlock Config



If required, some of the critical configuration parameters can be locked using a 4 to 8-digit password to prevent accidental changes. Configuration data displays while the menu is locked, however the menu must be unlocked using the password in order to change advanced parameters. These include Network settings, SIP setting and Flexible key assignments.

To lock portions of the configuration:

- Press the /↔ button, select 7. *Lock/Unlock Config* then press the *OK* button.
- Enter a password and press the *OK* button.
- Confirm the password and press the *OK* button.
- Once assigned, select 7. *Lock/Unlock Config* to lock the configuration.
- To unlock the configuration, press the /↔ button, select 7. *Lock/Unlock Config* then press the *OK* button.
- Enter the password, then press the *OK* button.

## Information

The phone provides the means to quickly view the network parameters (IP address, default gateway address, and subnet-mask), server IP addresses (SIP servers, TFTP server, and SNTP server), results of the last file download attempt, boot version, hardware and firmware version.



- Press the /↔ button, select 8. *Information* then press the *OK* button.
- Use the *Up/Down* navigation buttons to scroll through the parameters.
- Press the /↔ button to exit the menu.

## Reboot

After changing certain parameters, the phone will require a reboot to utilize the settings. These settings include the following:

- Network Configuration settings
- TFTP Server Address settings
- Software Update settings
- Default settings
- After a FortiVoice phone system firmware update, new features might be enabled so a reboot is a good idea to ensure consistent behavior.


To reboot the phone:

- Press the /↔ button, select 9. *Reboot* then press the *OK* button.
- Press the *OK* button to reboot the phone.
- If you press the *Left* navigation button in the above step, move to another parameter with the navigation buttons and continue with another session or press the /↔ button to exit the configuration session without activating the changes. Any parameter changes will only update after the next reboot.

# Using Web Manager for Configuration

The Web Manager is a web-based tool for configuring phone parameters. The Web Manager has access to all parameters including some not available through the *LCD Configuration* menu. It also provides for an easier method to view, make changes or load a contact list to the phone book. Please note that if used with a FortiVoice phone system (or other system) which automatically provides the configuration for the phone, then many key parameters should not be changed as they will revert to their preconfigured settings after the phone is rebooted and retrieves a configuration file.

## Login and Site Map

- Open your browser and go to the IP address currently assigned to the phone.  
Example: `http://10.10.10.1`
- To confirm the address from the phone, press the  button, then **8**. Upon a successful attempt, the following page will be visible.



- Click *LOGIN*
- Enter `admin` for the User name and `23646` for the password to gain access.

- Once logged in, the following *Site Map* page is loaded.

FON-260i		<b>Site Map</b>	
<b>Web Manager (SIP)</b>  VoIP Configuration  LAN Configuration  Call Preferences  Dial Plan  Phone Information  Phone Settings  Phone Book  Multicast Paging  Programmable Keys  Call Log  Network Time Configuration  Upgrade Configuration  QoS Configuration  Load Default Configuration  Reboot		<u>VoIP Configuration</u>	<u>LAN Configuration</u>
		SIP Configuration	Network Mode Selection (Static,DHCP) IP Address,Subnet Mask, Gateway Primary/Secondary DNS Address Domain Name
		<u>Call Preferences</u>	<u>Digitmap Configuration</u>
		Block CallerID/AnonymousCall Allow Call Msg/Hold Notification Tone Auto Answer Call Forwarding Direct Call	Digit Map
		<u>Phone Information</u>	<u>Phone Settings</u>
		Version Information Phone Name Change Password	Ringer Off DTMF Payload Relay/Duration Frame Duration Outgoing Call Lock Speed Number Usage & One-touch Pickup Hide Download Flag Menu on LCD
		<u>Phone Book</u>	<u>Multicast Page</u>
		Current Phone Book List Add/Delete/Modify Phone Book Entry Upload/Download Phone Book List	Paging Prefix Priority Page Group Management General Page Group Management
		<u>Programmable Keys</u>	<u>Call Log</u>
		Current Programmable Key Setting Add/Delete/Modify Programmable Key Setting	Missed/Incoming/Outgoing call Log
		<u>Network Time Configuration</u>	<u>Upgrade Configuration</u>
		SNTP Server Address TimeZone, Time format, Date format DST(Daylight Saving Time) Selection	Upgrade Result TFTP Server Address, HTTP/HTTPS Settings Configure S/W & Config. file download flag Smart Upgrade
		<u>QoS Configuration</u>	<u>Load Default Configuration</u>
		Diffserv Configuration IEEE 802.1Q Jitter Buffer	Load Defaultvalue(Factory setting)
		<u>Reboot</u>	
		Reboot	

For illustration purposes, the following screens in this section do not show the left navigation menu.

The *Site Map* page is divided into 2 sections: the left hand navigation menu and page content on the right side for the various sections. Select the desired page from either the navigation menu or the site map.

## VoIP Configuration

Line Settings	
Proxy Address	172.20.241.200
Proxy Port	5090
Display Name	140 Viper 260i
Name	140
Authentication Name	B40EDC140
Authentication Password	.....
Delayed Ring	Not Use <input type="button" value="v"/>
Registration Status	NOK

Common Settings	
Outbound Proxy Address	172.20.241.200
Outbound Proxy Port	5090
Backup Proxy Address	
Backup Proxy Port	5060
Domain	
VMS Address	tsvm
Proxy Registration	enable <input type="button" value="v"/>
Registration Timer (sec)	3600
Local UDP Port	5112
Local TCP Port	5060
TCP Port	5060
Local TLS Port	5061
TLS Port	5061
Transport Mode	<input type="button" value="v"/> 1. AES_CM_128_HMAC_SHA1_80 <input type="button" value="v"/> 2. UDP <input type="button" value="v"/> ARIA_CM_128_HMAC_SHA1_80 <input type="button" value="v"/>
Start Rtp Port	4112
S RTP	<input type="button" value="v"/> 1. AES_CM_128_HMAC_SHA1_80 <input type="button" value="v"/> 2. <input type="button" value="v"/> 3. ARIA_CM_128_HMAC_SHA1_80 <input type="button" value="v"/> 3. <input type="button" value="v"/> ARIA_CM_192_HMAC_SHA1_80 <input type="button" value="v"/>
Codec Priority	<input type="button" value="v"/> 1. PCMU <input type="button" value="v"/> 2. PCMA <input type="button" value="v"/> <input type="button" value="v"/> 3. G729 <input type="button" value="v"/> 4. None <input type="button" value="v"/> 5. None <input type="button" value="v"/>
Centralized Conference	disable <input type="button" value="v"/> URL <input type="text"/>
OPTIONS Timer (sec)	<input checked="" type="radio"/> Off <input type="radio"/> On 0 (1~6400)
STUN Server Address	
STUN Server Port	3478
MWI Usage	enable <input type="button" value="v"/>

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If the phone is provisioned with a FortiVoice system, the *Line Setting* values will automatically be assigned.

## Line Based Parameters

- *Proxy Address:* The IP address or FQDN of the phone system, SIP server or SIP proxy.
- *Proxy Port:* The server port for incoming SIP requests and outgoing responses.
- *Display Name:* The name used for outgoing Caller ID. The display name assigned for Line 1 also displays on the LCD display when idle.
- *Name:* The name (phone number) used during registration. The name is generally the telephone number or the SIP user ID assigned by the administrator or service provider.
- *Authentication Name:* The user ID for authentication of the line with the phone system or SIP server/service.
- *Authentication Password:* The password for authentication of the line with the phone system or SIP server/service.
- *Delayed Ring:* Delays the audible notification (ring) for a line. The delay is set in 1-second increments from 0 (no delay) to 10 seconds.
- *Registration Status:* Shows the registration status of the phone. Refresh the page if it doesn't match the status indicated on the phone.

## General Parameters

- *Outbound Proxy Address:* The IP address or FQDN of the outbound proxy server to receive SIP requests in place of the line-based Proxy Server.
- *Outbound Proxy Port:* The port of the outbound proxy server.
- *Backup Proxy Address:* The IP address or FQDN of the backup proxy server, used when the connection with the primary proxy times-out.
- *Backup Proxy Port:* The port of the backup proxy server.
- *Domain:* The domain for SIP service when the service provider desires to use a specific SIP domain.
- *VMS Address:* The address (IP or phone number) of the Voice Mail Server.
- *Proxy Registration:* Enables SIP registration to the proxy. This parameter is ignored if an Outbound Proxy Address is not defined.
- *Registration Timer:* Sets the interval (in seconds) between SIP registration renewal attempts.
- *Local UDP Port:* The UDP port used on the LAN for sending and receiving SIP packets.
- *Local TCP Port:* The TCP port used on the LAN for sending and receiving SIP packets.
- *Local TLS Port:* The TLS port used on the LAN for sending and receiving SIP packets.
- *TCP Port:* The TCP port used on the LAN for sending and receiving SIP packets.
- *TLS Port:* The TLS port used on the LAN for sending and receiving SIP packets.
- *Transport Mode:* The packet transport mode for voice traffic. UDP is most widely used by most services. FortiVoice phone systems use UDP.
- *Start RTP Port:* The starting port for used for Real-time Transport Protocol (voice) packets.
- *SRTP:* Enable if required by the system or service provider.
- *Codec Priority:* Select the priority for audio codecs.
- *Centralized Conference:* This parameter enables or disables server control and processing of conferences. When enabled, the server provides a single RTP stream for the conference. When disabled, the phone processes separate RTP streams for each participant, maximum 3-parties. A URL is required for centralized conference. FortiVoice does not use centralized conference.
- *Options Timer:* This timer sets the SIP options interval.
- *STUN Server Address:* If required, enter a STUN server IP address or FQDN.



- *STUN Port*: If required, enter the port used for the STUN server.
- *MWI Usage*: Enable for indication of new messages for the registered voicemail system.

When done, press the **Save** button to store settings to the phone.



Changing the proxy server address, proxy port, outbound proxy, backup proxy, VMS address or local UDP port requires a reboot of the phone.

## LAN Configuration

**LAN Configuration**

<b>Network Selection</b>	<input type="radio"/> Static <input checked="" type="radio"/> DHCP
<b>Desired IP Lease Time (sec)</b>	<input type="text" value="86400"/> <small>(600~4294967295)</small>
<b>IP Address</b>	<input type="text" value="192.168.0.13"/>
<b>Subnet Mask</b>	<input type="text" value="255.255.255.0"/>
<b>Default Gateway</b>	<input type="text" value="192.168.0.1"/>
<b>Mac Address</b>	B4:0E:DC:AF:57:E7
<b>Primary DNS</b>	<input type="text" value="206.191.0.140"/>
<b>Secondary DNS</b>	<input type="text" value="8.8.8.8"/>
<b>Domain Name</b>	<input type="text"/>

---

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The *LAN Configuration* page is used to set the network parameters required for proper operation when connected to a LAN. If using DHCP, then the values should be automatically filled and no edits required. For manual configuration, see the network administrator for IP information.

- *Network Selection*: Select Static or DHCP. If Static selected, then manually assign the required IP parameters.
- *Desired IP Lease Time*: This is the IP Address Lease Time value included in DHCP packet made from the phone in DHCP mode.
- *IP address*: A valid IP address is required for the phone.
- *Subnet Mask*: Enter the subnet mask for the LAN.
- *Default Gateway*: Enter the default gateway IP address of the LAN.
- *Mac Address*: Shows the MAC address of the phone LAN port. Not editable.
- *Primary DNS*: IP address of the primary DNS server.
- *Secondary DNS*: IP address of an auxiliary DNS server. Optional
- *Domain Name*: Domain name for the LAN. Optional

When complete, select the **Save** button to store the new values to the phone.



The MAC address is fixed and cannot be modified. The IP address, subnet mask, etc. can only be changed if the static Network Mode is assigned. Changing any values on the LAN page requires a reboot.

## Call Preferences

Call Preferences	
Anonymous Call Block	disable ▾
Call Waiting Function	enable ▾
Call Waiting Tone	enable ▾
Call Hold Ringback	enable ▾
Message Waiting Tone	enable ▾
Auto Answer	disable ▾
Access Code Prefix	<input type="text"/>
Min. Length for Access Code	6 (1~70)

Call Forwarding	
Condition	not use ▾
Address to Forward	<input type="text"/>
No-answer Time (sec)	10 (1~30)

Direct Call	
Direct Call	disable ▾
Direct Call Number	HotLine <input type="text"/>
Direct Call Timer (0 ~ 10 sec)	0 (Hot-Line) ▾

---

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Most of the call preference parameters can be altered according to the user's requirements.

- *Anonymous Call Block*: When enabled, the phone blocks incoming calls with an anonymous Caller ID.
- *Call Waiting Function*: When enabled, the phone will accept additional calls and notify the user visually of the incoming call while in a conversation. If disabled, no additional calls are accepted and the system will follow the busy response configuration.
- *Call Waiting Tone*: When enabled, a tone is played to the user along with Caller ID information to announce the new call.
- *Call Hold Ringback*: When enabled, the phone rings if the user has taken a 2nd call then terminated the call with another caller still on hold.
- *Message Waiting Tone*: When enabled, a stutter dial tone is played when first going off-hook and a new message is waiting. The visual LED notification is always enabled for voicemail notification.
- *Auto Answer*: When enabled, it will automatically activate the speakerphone when an incoming call is received.
- *Access Code Prefix*: To simplify dialing from the Phonebook or Call Logs, enter a hunt group (9, 81-88) that you would like the phone to use as a prefix to place calls using the specified hunt group. If direct line access is enabled for the extension, then leave blank.

## Call Forwarding

- *Call Forwarding*: is not supported directly by the FortiVoice phone. Call forwarding is configured in the FortiVoice system for busy, no answer and DND conditions for the extension.

## Direct Call

- *Direct Call (Hotline/Warm-Line)*: When used with the FortiVoice system, the feature is controlled by the configuration in the software for this extension. No configuration is required.
- *Direct Call*: when enabled, places a call to a predefined destination automatically when the phone goes off hook.
- *Direct Call Number*: defines the destination for a direct call.
- *Direct Call Timer*: sets a delay timer for Warm-Line operation. The timer specifies the period before placing a direct call. The timer supports 1 second increments from 0–10 seconds. For Hotline operation, set the timer to 0 seconds.

To modify parameters on the *Call Preferences* screen:

- Select the desired parameter and enter or select the new values.
- When complete, select the *Save* button to save the new values to the phone.

## Dial Plan

The phone incorporates a dial plan, which monitors the user-dialed digits for patterns matching the dial plan number. If a match occurs, the phone modifies the digits and processes the call using the configured script in the dial plan.

### Digit Map Table

**Digit Map (Routing)**

x.T|x+#

**Digit Map (2nd Dial Tone)**

**Digit Map (Emergency)**

911|9911|8x911

**Digit Map (Process)**

DEL	Number	TRNC	Pre	Post
	<input style="width: 90%;" type="text"/>	<input style="width: 90%;" type="text"/>	<input style="width: 90%;" type="text"/>	<input style="width: 90%;" type="text"/>

Using the *Digit Map Table*, a string of 512 characters may be entered to define the dial plan. Within the string, individual numbers are entered, separated by a '|'. In addition to dial pad digits, special characters may be entered as follows:

---

x	matches any single digit (0 to 9).
---	------------------------------------

---

T	inserts a timed pause for additional digits.
---	--

---

.	matches any number of occurrences of a digit, including zero occurrences and includes special character matches.
---	--

---

+	matches any number of occurrences of the previous match, including special characters.
---	--

---

[ ]	matches a digit from a group of digits. This character combination is used with "." to define a range, [2-6] matches any digit from 2 to 6 inclusive.
-----	---

---

The dial plan can include modification of a matching dialed number before call set-up. The Digit Map Process defines the modification procedures for a number. The process may include:

- *TRNC*: Defines the number of digits to delete (truncate) from the number dialed.
- *Pre*: Defines the digits to insert in front of the number (including if truncated).
- *Post*: Defines the digits to insert at the end of the number (including if truncated).

The following are examples of dial plans using the digit map tables.

## Simple Dial Plan

### Customer requirement

Process the call after any 7-digit number is dialed or if the Operator is dialed - 0.

#### *Digit map routing entry*

The digit map of this Dial Plan is (0T | xxxxxxx).

From this map, if the user dials 0 as the first digit, the phone will wait for the pause time for additional digits. After the pause, if no additional digits are dialed, the phone places a call to the Operator. In addition, after the user dials any seven digits, the call is processed.

## Complex Dial Plan

### Customer requirement

Process the call after the local Operator at 0, long distance Operator at 00, a 4-digit local extension number starting with 3, 4 or 5, a 7-digit local number prefixed by an 8, 2-digit number preceded by star (\*), a 10-digit long-distance number prefixed by 91, or an international number starting with 9011 is dialed.

#### *Digit map routing entry*

The dial plan for this is (0T | 00T | [ 3-5 ]xxx | 8xxxxxxx | \*xx | 91xxxxxxxxxxx | 9011x.T).

## 2nd Dial Tone

A second 512-character string map is employed to provide 2nd Dial Tone.

### Customer requirements

To provide second dial tone after a 9 is dialed, establish a Dial Plan as below.

In the Digit Map (2nd Dial Tone) text box, the dial plan for this is (9 |).

To change Digit Map Table parameters:

- Select *Digit Map* under the *Dial Plan Type*.
- Enter the desired values into the Digit Map (Routing) box.
- Select the *Save* button.

To set-up or change a Digit Map to provide 2nd Dial Tone.

- Enter the digits in the Digit Map (2nd Dial Tone) box.
- Select the *Save* button.

To modify a Digit Map process:

- Enter the digits in the Digit Map (Process) boxes.
- Select the *Save* button.

To delete a Digit Map process:

- Select the *DEL* checkbox.
- Select the *Save* button.

## Phone Information

**Version**

Model Name	FON-260i (SIP IP Phone)
H/W Version	1.0
S/W Version	1.3.01sts_a
S/W Link Time	Apr 8 2013 17:23:06

**Phone Name**

Phone Name	<input type="text"/>
------------	----------------------

**Change Password**

Login Name	admin
Old Password	<input type="text"/>
New Password	<input type="text"/>
Confirm Password	<input type="text"/>

---

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The *Phone Information* page displays useful information for the phone. In addition, it is possible to change the Web Manager password from this page.

To change the phone name:

- Enter the desired name.
- When complete, press the *Save* button.

To change the password:

- Enter the existing password.
- Enter the new password then confirm.
- When complete, press the *Save* button.

## Phone Settings

**Phone Settings**

Frame Duration (10~100)	20 ms
DTMF Relay	RFC2833
DTMF Payload (96~255)	101
DTMF Duration (50~300)	160 ms
Use Speed Number	not use
Key Tone	not use
Active Call Timer (0~999)	5 s (0: No Change)
Pause Dial Time (100 ~ 10000)	500 ms

**Functions**

<input checked="" type="checkbox"/> Download Flag	<input checked="" type="checkbox"/> One-touch Pickup
---	--

---

**Ring Settings**

Ringer Type	Ring Type 1
Ringer	on

---

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The *Phone Settings* page contains a mix of parameters that should only be changed if familiar with the resulting change.

- *Frame Duration*: Sets the interval to send/receive RTP packets in milliseconds. Do not change this value if you do not understand the settings.
- *DTMF Relay*: Configure the method for DTMF signaling (in-band, out-of-band or negotiate). Do not change this value if you do not understand the settings.
- *DTMF Payload*: Configure the payload type for DTMF signals according to RFC 2833. Do not change this value if you do not understand the settings.
- *DTMF Duration*: Configure the duration of DTMF signals sent from the phone in milliseconds. Do not change this value if you do not understand the settings.
- *Use Speed Number*: Enable or disable using 2-digit dialing to dial contacts from the Phone Book.
- *Key Tone*: enables or disables the tone generated when a button on the phone is pressed.
- *Active Call Timer*: This setting is not used by the FortiVoice system.
- *Pause Dial Tone*: Configure the duration of the pause character in your phone book or speed dial.

## Functions

- *Download Flag:* Enables the visibility of the S/W and configuration download flags functions under the *LCD Configuration* menu.
- *One-touch Pickup:* When enabled, pressing a line button will connect the call to the speakerphone or headset. If One-touch Pickup is disabled, the phone will instead display the call status when a line button is pressed. The call does not connect to the speakerphone or handset unless the button is pressed a second time.

## Ring Settings

- *Ringer Type:* Sets the default ring type from one of 4 ring signals.
- *Ringer:* Set to *On* to enable the ringer or *Off* for no ring. The phone will still show Caller ID and flash the LED light associated to the line.

## Phone Book

Speed Number	Name	Phone Number	Information	Clear	Modify	Dial
00	Joe Smith	555-444-1234	joe@joesmith.com	<input type="checkbox"/>	Modify	Dial
01	Anne Jones	555-444-2222	Work Number	<input type="checkbox"/>	Modify	Dial

Add Clear ClearAll

Download  Browse... Upload

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The phone includes an internal Phone Book with 100 contact records. Calls to a contact can be made using the Speed number (00–99). Records may be added, edited, deleted or searched from the phone interface via the Phone Book section under the Directory.

To add a Phone Book entry:

- Click the *Add* button and enter the new values. Information is purely an optional field. For example, you might enter company names or e-mail addresses if desired.

Speed number	2 (00 ~ 79)
Name	<input type="text"/>
Phone Number	<input type="text"/>
Ring Type	Default Ring
Info(optional)	<input type="text"/>

Save

- When complete, select the *Save* button to store the record.



To modify an entry:

- Select *Modify* for the desired record and enter the new values in the *Phone Book Entry* screen.
- When complete, select *Save* to store the modified record.

To place a call using the Phone Book:

- Click the *Dial* button for the desired contact.

To delete specific entries from the Phone Book:

- Click the *Clear* box for the desired records and select the *Clear* button to delete checked records.

To delete all entries from Phone Book:

- Select the *ClearAll* button.

The Phone Book can be downloaded or uploaded to and from a comma-separated value (CSV) file. To upload/download:

- Click the *Browse* button and locate the desired CSV file on your PC.
- Select *Upload* or *Download*, as desired.

## Loading a Contact List using a Web Browser

The contact list must use the following format:

*SpeedNumber,Name,PhoneNumber,Information (optional),RingType*

Example:

```
SpeedNumber , Name , PhoneNumber , Information , 1
1 , Joe Smith , 5555555555 , Head Office , Off
2 , Jane Mbete , 5555555555 , Ottawa , 1
3 , Samantha Park , 8883331234 , 2
4 , Scott Duff , 8004441111 , sduff@example.com , 4
```



- The file **must** be saved in .csv format.
  - The phone number field cannot contain spaces, dashes, decimals or other characters. Only use numbers.
  - If a single digit is specified under the SpeedNumber column, then it will automatically be prepended with 0. Example: 1 will be stored as speed dial 01.
  - The number of entries cannot exceed 80.
  - An optional header can be included at the beginning of the CSV file as shown above. It is not required.
  - The Ring Type options are 1 through 4, off and default.
-

## Downloading the phone book to a file on a PC using a web browser

To backup the phone book to a file:

- Press the *Download* button to save the records in a CSV format.
- We recommend you select the option to save to a location on the PC rather than open directly to ensure data integrity in case any phone numbers begin with zeros as Microsoft Excel and other applications will strip the zeros from the beginning of any numerical string.

Note for importing CSV files into Excel that contain phone numbers which have a leading 0:

1. Open Excel and create a new worksheet.
2. From the Excel menu, select *Data > Import External Data*.
3. Select the CSV file to import and proceed.
4. Select *comma* as the delimiter (if CSV).
5. For column values, select *Text* format for the column containing the phone number.

Once imported, the phone numbers with leading zeros should be in the proper format.

## Multicast paging

**Multicast Paging**

Paging Prefix	PAGEGROUP!*85
---------------	---------------

**Priority Paging Group**

Page Group	Dial Code	Name	IP Address	Port	Delete
Priority	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

**General Paging Group**

Page Group	Dial Code	Name	IP Address	Port	Delete
0	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
8	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

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The phone supports multicast paging. It can be configured to listen for paging announcements made on a specific multicast IP address and port.

Pages received on a matching multicast IP address and port will play through the speakerphone when the phone is idle. In the case where the phone is already in use, the user will see softkey options to accept or reject the page.

### Multicast Paging

Enter the prefix that will be sent from the phone when initiating a group page.

### Priority Paging Group

A priority page will override any general page in progress. For example one might want to configure all phones to accept a priority page in case of a fire. When a page is made to this group, it will override all other pages in progress.

### General Paging Group

The phone support up to 10 general paging groups. Program the dial code, name, multicast IP address and port.

## Programmable Keys

**Programmable Key Assignment**

F1	None <input type="text"/> Label <input type="text"/>	None <input type="text"/> Label <input type="text"/>	F3
F2	None <input type="text"/> Label <input type="text"/>	Conference <input type="text"/> Label CONF <input type="text"/>	F4

---

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The phone has 4 programmable keys that can be assigned to various functions. When programmed by a phone system, these keys are usually defined via the configuration file. For keys set to user defined in FortiVoice software (shown as *None* in the web interface of the phone), these keys can be programmed from the phone or web interface and will not be overwritten when a configuration file is loaded onto the phone via the FortiVoice system.

To change key functions:

- Select the function from the drop-down menu next to the key.
- For a Speed dial key, enter the contact number.
- For a Message key, enter the phone number of the voicemail server.
- When complete, press the *Save* button.

To delete the functions assigned to all flexible keys:

- Select the *ClearAll* button.



Selecting *ClearAll* will immediately clear all programmed keys on the phone so ensure this is an intended action.

## Call Log

Call Log								
Num	Dir	User	Host	Date, Time	Call Duration	State	Add	Dial
1	O/G	e115		10/02/04 4:46:54P	00:00:03	OK	<input type="button" value="Add"/>	<input type="button" value="Dial"/>
2	O/G	INTERCOM115		10/02/04 3:51:19P	00:00:02	OK	<input type="button" value="Add"/>	<input type="button" value="Dial"/>

---

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The *Call Log* page provides a list of all calls (incoming, outgoing or missed) for the extension. The log is organized to show the type of call — IC (incoming/received), OG (Outgoing) and M (Missed), the contact name and contact information, date and time, duration, and state of the call — Connected (OK), no call established (NOK). From the Call log, the user can call a contact or store a record directly to the Phone Book.

To add a number from the Call Log to the Phone Book list:

- Select the *Add* button.
- If an Access Code Prefix, such as a Hunt Group, has been programmed into the phone, then it will be inserted when an outbound call is placed from the Phone Book. Do not add to the phone book entry.

To delete all Call logs:

- Select the *ClearAll* button.



Selecting the *ClearAll* button will delete all records in the Call Log.

---

To call a party from the Call Log:

- Click the *Dial* button associated with the desired Call log record. If an Access Code Prefix, such as a Hunt Group, has been programmed into the phone, then it will automatically be inserted when dialed.

# Network Time Configuration

### Network Time Configuration

SNTP Server Address	172.20.241.200
Time Zone	GMT-05:00
BOSTON, DETROIT, EASTERN STANDARD, LIMA, MONTREAL, NEW YORK, OTTAWA, WASHINGTON D.C.	
DST (Daylight Savings Time)	on

#### Time Format

Off   
  12H (12:56A)   
  24H (00:56)

#### Date Format

Off   
  MM/DD (01/01)   
  DD/MM (01/01)   
  DD m (01 Jan)   
  m DD (Jan 01)

#### DST Configuration

DST Start Condition	Month	MAR
	Week of Month	2
	Day of Week	SUN
	Time	2
DST End Condition	Month	NOV
	Week of Month	1
	Day of Week	SUN
	Time	2

<< DST Configuration Example >>

TimeZone	PACIFIC STANDARD
Dst	Start/End Month : MAR/NOV
	Start/End Week of Month : 2/1
	Start/End Day of Week : SUN/SUN
	Start/End Time : 2/2

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The *Network Time Configuration* page allows you to configure the parameters required for proper maintenance of the time and date on the phone. If provisioned by FortiVoice, nothing needs to be changed on this page.

## Configurable Parameters

- **SNTP Server Address:** Enter the URL or IP address of the SNTP server that will be used to synchronize the date and time for the phone. Example: time.nrc.ca
- **Time Zone:** Select the time zone that matches the location of the phone.
- **DST (Daylight Savings Time):** Enable DST if applicable in your region. Ensure DST configuration parameters are properly configured for the start and end of the DST cycle.

- *Time Format*: Sets the format of the LCD time display. Options include: Off, 12-hour or 24-hour.
- *Date Format*: Permits the configuration of the date format as will be shown on the LCD of the phone.
- *DST Configuration*: If DST is enabled, then rules for when it is engaged and disengaged need to be configured. DST can be configured to start and end on specific dates or switch according to a day of the week in a certain month (typically used in North America).

Known public SNTP servers that can be used:

- ntp.nasa.gov
  - pool.ntp.org
  - tick.ucla.edu
  - time.nrc.ca
- To modify parameters on the Network Time screen, select the desired parameter and enter new values or select values from the drop-down menus. When complete, press the *Save* button.

# Upgrade Configuration

### Upgrade Result

S/W Image	VER FILE NOT FOUND
Sys Config.	DOWNLOAD OK
Mac Config.	FILE NOT FOUND

### Upgrade Configuration

TFTP <input checked="" type="radio"/>	TFTP Server Address	<input type="text" value="192.168.0.200"/> <input type="checkbox"/> Received by DHCP on boot <input type="checkbox"/> Make TFTP address persistent
	MAC Cfg. Format	<input type="text" value="\$MAC"/> <small>(*\$MAC:MAC (ex)001234567890)</small>
HTTP/ HTTPS <input type="radio"/>	HTTP/HTTPS URL	<input type="text"/> <input type="checkbox"/> Received by DHCP on boot, Option <input type="text" value="160"/>
	ID	<input type="text"/>
	Password	<input type="password" value="*****"/>
	MAC Cfg. Format	<input type="text" value="\$MAC"/> <small>(*\$MAC:MAC (ex)001234567890)</small>
	Verifying Cert.	<input checked="" type="checkbox"/> Verified Cert. & Expiration <input checked="" type="checkbox"/> Server name verification
	Root CA	

File to Upgrade	<input checked="" type="checkbox"/> S/W <input checked="" type="checkbox"/> Configuration
Smart Upgrade	Use Smart Upgrade <input type="text" value="disable"/> <input type="text" value="CFG_SW_BOTH"/> <input type="radio"/> 1 hours 0 (0~59) minutes Interval(s) <input checked="" type="radio"/> At 0 : 0 (0~59) everyday <input checked="" type="checkbox"/> If discovered, confirm downloading.

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If using with FortiVoice, these parameters should never need to be altered. When performing a firmware update, follow the instructions provided in the Start Guide or support section of the website.

On the *Upgrade Configuration* page, the results of the most recent download attempt are displayed at the top. In addition, the following parameters can be modified:

- *TFTP/HTTPS*: Select the protocol that will be used to connect to the server where configuration and software files are stored.



- **TFTP Server Address:** Enter the IP address or FQDN of the TFTP server where configuration and firmware files are located. Select the *Received by DHCP on boot* checkbox if the phone will use DHCP option 66 or 150 to populate this field.
- **HTTPS URL:** is the URL of the HTTP/HTTPS server where configuration and software files are located. Select the *Received by DHCP on boot* checkbox if the phone will use the DHCP Option defined to retrieve the URL. If the option is present, the provisioning type is changed automatically to HTTP/HTTPS using the URL from the DHCP option and default option 160. Note: Port 80 is used for HTTP and 443 for HTTPS.
- **ID:** If required, enter the user name for HTTPS authentication.
- **Password:** If required, enter the password for HTTPS authentication
- **MAC Cfg. Format:** Define the format of the MAC (phone specific) configuration filename. *\$MAC* is replaced with the MAC address of the phone and must be included as part of the file name or path to the configuration file on the HTTP/HTTPS server.
- **Verifying Cert.:** Enables the verification of the Certificate of Authority (CA) on the HTTPS server. When enabled, the phone checks the CA signature. When *Server name verification* is checked, the phone checks whether the name of the server sending the CA is valid.
- **Root CA:** Defines a Certificate of Authority (CA) other than the internal CAs, which include Verisign®, to use for verifying the CA from the server. When the CA is not available in the phone memory, paste the Root CA in this area of web page.
- **File to Upgrade:** Select the *S/W* check box if the phone should check for new firmware files on bootup. Select the *Configuration* check box if the phone should check and download during bootup. We recommend you leave both enabled. If no new files are found, no changes are made.
- **Smart Upgrade:** Enables periodic checks for new software on the provisioning server. Two methods of smart upgrade are available; one checks the server at the interval in hours, the second checks daily at the time specified in a 24-hour clock format. Select *enable* from the *Use Smart Upgrade* dropdown menu, then select the method with the radial button and enter the interval or time as appropriate.
- If the phone finds a new version of software during the smart upgrade, the phone either downloads the file or displays the availability of the new version and awaits confirmation to download. To await confirmation, select the *If discovered, confirm downloading* checkbox.

To modify the configuration:

- Select the parameter and enter the new value or select the checkbox.
- When complete, press the *Save* button.



If the *Received by DHCP on boot* box is checked and there is an address specified for TFTP or HTTPS, then it is ignored since the server information retrieved from the DHCP server is used.

The radial button next to the provisioning server type (TFTP or HTTPS), must be checked. If no type is selected, file download is disabled.

Changes made to the Upgrade section require a reboot of the phone.

---

## QoS Configuration

### Diffserv Configuration

Enter values in hex code format.

Recommended Values for Standard Per-Hop Behavior

1. DE (Default Expected) : 0x00
2. EF (Expected Forwarding) : 0xb8
3. AF (Assured Forwarding) : 0x28 ~ 0x98

Grade	Ave	Bronze	Silver	Gold
Low	0x28	0x48	0x68	0x88
Medium	0x30	0x50	0x70	0x90
High	0x38	0x58	0x78	0x98

<b>ToS</b>	<input type="text" value="0x0"/>
------------	----------------------------------

### IEEE 802.1Q

	PC Port	LAN Port
<b>Priority</b>	<input type="text" value="3"/>	<input type="text" value="5"/>
<b>VLAN ID (0 ~ 4094)</b>	<input type="text" value="0"/>	<input type="text" value="0"/>

### Jitter Buffer Configuration

<b>Minimum Delay (0 ~ 150)</b>	<input type="text" value="30"/>	ms
<b>Normal Delay (0 ~ 150)</b>	<input type="text" value="60"/>	ms
<b>Maximum Delay (0 ~ 150)</b>	<input type="text" value="120"/>	ms

---

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Only make adjustments if you understand how these features work.

### Diffserv Configuration

DiffServ Code Point (DSCP) or ToS establishes the priority of voice packets. Compatible routers apply the DSCP for packet priority, handling higher priority packets first. However, at congested routers, higher priority packets are discarded first. Thus, a median value for DSCP is recommended.

### IEEE 802.1Q

The VLAN tag defines the priority for Ethernet frames and the VLAN ID based on IEEE 802.1p/q. If using with FortiVoice phone systems, 802.1p/q tagging is not currently supported. The phone PC and LAN (voice) ports use separate VLAN tags. With a VLAN ID assigned, only frames with the ID are accepted and frames sent from the phone include the LAN port ID and priority. In addition, the PC, LAN ports and the default gateway must be assigned to employ the VLAN tags for proper operation.

### Jitter Buffer Configuration

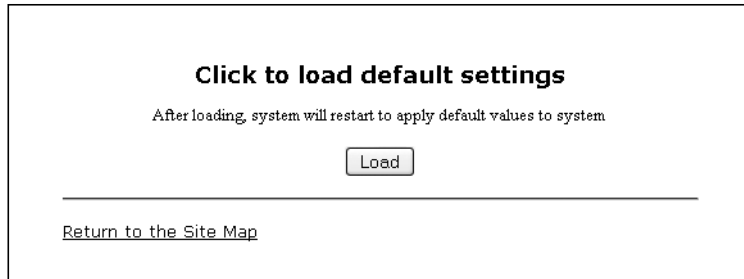
A jitter buffer stores incoming packets to allow for re-sequencing of packets received out of order. The jitter buffer configuration controls the size of the buffer used. The minimum, normal and maximum delays expected can be changed. Using larger values produce less packet loss as the phone waits longer to receive packets before processing. Note that large values may delay voice packet processing and smaller values may produce more packet loss but quicker voice packet processing. We recommend you use the default settings.

- When done making changes, press the *Save* button.



Modifications made to the IEEE 802.1p/Q configuration require a reboot of the phone.

## Load Default

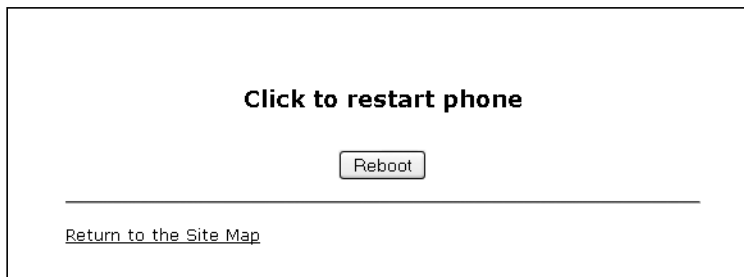


The *Load Default* page provides an option to return the phone configuration to factory default values.

To set the phone to the default configuration:

- Select the *Load* button. **Note: All settings will be lost!**
- The phone will load the default configuration and automatically reboot.

## Reboot



To reboot the phone:


- Select the *Reboot* button.
- The phone will reboot.

# Using the Phone


## Receiving a Call

When you receive a call, the phone rings while the LCD displays the incoming call information.


To answer an incoming call:

- Lift the handset or press the  button to activate the speakerphone.



To end a call:

- Hang up the handset. If using the speakerphone, press the  button.


## Placing a Call

Calls can be placed with the handset on-hook or off-hook. This is similar to a mobile phone. The phone supports a technique called 'store and forward dialing'. After you dial a digit, the phone waits about 5 seconds for additional digits. If you do not dial additional digits, the phone sends the digits you dialed to the phone system for processing. When done dialing, press  to place the call immediately.

To place a call:

- Lift the handset or press the  button to activate the speakerphone.
- Dial the destination number. After a short delay, the phone will send the number. Optionally, press  to place the call immediately.
- When connected to the remote party, the LCD displays the elapsed call time.

To end a call:


- Hang up the handset. If using the speakerphone, press the  button.

## Putting a Call on Hold

When placing a call on hold, the held party cannot hear you and you will not hear the held party. The held party will hear MOH (Music On Hold), if configured with the phone system.

While a call is on hold, you can answer or place other calls and can toggle between calls on hold. With Call Hold Ringback enabled, the phone rings as a reminder of calls on hold when you hang up after completing the other call.

To place a call on hold:

- Press the  button. The call status changes to hold and you receive dial tone. You can then select another line to answer or place a call.

To retrieve a call held on a different line:

- Press the  button.



To toggle between two calls on the same line:

- Press the *Up/Down* navigation buttons. The active call status changes to hold and the call on hold connects.

## Attended Call Transfer

Calls can be announced to a transfer party before making the transfer.




To transfer an active call:

- Press the  button. The active call status changes to hold and you receive dial tone to dial an alternate extension/number.
- Dial the extension or phone number + .
- Wait for the remote party to answer and announce the transfer.
- To complete the transfer, hang up the handset.

## Blind Call Transfer


You can transfer an active call to another extension without talking to the party receiving the call. The call transfers to the new party without verifying that the new party is there or willing to receive the call.

### To transfer a call without announcing the transfer

- Press the  button.
- Dial the extension or phone number + .
- To complete the transfer, hang up the handset.
- To cancel a transfer, press the  button.

## 3-Party Conference

The phone supports conferencing with two other parties.

- Place the first call.
- Press the  button then dial the second party for the conference.
- When the party answers, press the *OK* button and select *Conference*.
- Press the *OK* button to complete the conference.

### Ending a conference call

To end a conference and disconnect all parties:

- Hang up the handset.

## Call Waiting

If the extension is configured in the phone system for Call Waiting, while on a call, the line button flashes and a beep tone is played to you over the active conversation to indicate the new call. In addition, the LCD displays the incoming caller ID so you know who is calling before deciding to interrupt the current call.



To answer an incoming call while on a call:

- Press the *OK* button. The first call will be placed on hold and you will be connected to the second caller.

## Redial

The phone saves the last number dialed and allows you to redial the number with the touch of a button.

To redial a call:

- Press the  button. The phone activates the speakerphone and places the call.
- For privacy, lift the handset, then press the  button.

## Preprogrammed Speed Dial Keys

Programmable keys can be programmed by the administrator for system or personal speed dial use.

To place a call using a speed dial key:

- Press the desired key preprogrammed as a speed dial. The phone activates the speakerphone and places the call according to the outgoing line hunting rules programmed in the phone system for the extension.
- For privacy prior to placing the call, lift the handset.

## Dialing using a Speed Dial Number

The phone has a Phone Book that can store up to 100 contacts. Each record includes a name, contact information and a speed dial number (00–99). When you dial a speed dial number, the phone initiates a call to the contact. By default, the speed dialing feature is enabled. If disabled, this feature will not work.

To place a call using a speed dial number:

- Dial the speed dial number (00–99), then press **#** to place the call to the desired contact. The phone will dial the number programmed in the phone book. If an access code has been preprogrammed for the phone (example: 9 for gaining access to outside lines), the access code will automatically be prepended to the programmed speed dial entry for placing the call.

## DND (Do Not Disturb)

When the DND (Do Not Disturb) feature is enabled, the phone will not notify you of an incoming call thus allowing you to work without interruptions from incoming calls. Calls will be routed according to the settings programmed for your extension or service.

To enable DND:

- Dial **\*62 + #**.

To disable DND:

- Dial **\*62 + #** again.

## Muting a Call

Mute toggles the microphone of the handset and speakerphone off or on. When mute is active, the connected party will not hear anything from the phone.

To mute the microphone:

- Press the  button. “Mute” displays in the LCD.


To unmute the microphone:

- Press the  button again.


## Accessing Your VoiceMail

When you have a message waiting, the Message LED flashes to indicate you have new messages in your mailbox.

To access your voice mailbox:

- Press the  button. Follow the instructions from your voicemail system to listen to messages.

## Hotline/Warm-Line

With Hotline/Warm-Line operation configured, the phone automatically calls the defined destination when you take the handset off-hook or press the  button. Hotline means the call is made immediately, while warm-line provides a delay of up to 10 seconds before placing the call. The latter provides time to access a system feature or line as might be required. Note that with Hotline configured, speed dial, redial and other automated dialing features will not operate.

# Using your Phone with FortiVoice

## Access an outside line

Dial hunt group **9** or **8 1-8 8** (Americas, UK), dial **0** or **8 1-8 8** (other countries). No hunt group is required if direct line access is enabled.

## Accessing Features



If direct line access is enabled, dial **\* \*** to access features indicated with a **▲**, unless you are using a programmed key.

### Do not disturb

Dial **\* 6 2 + #** to toggle on/off.

### ▲ Pick up – Any ringing extension

Dial **\* 9 + #**.

### ▲ Pick up – Specific extension

Dial **\* 7 + <extension> + #**.

### Place a caller on hold

Press the  button.

### Retrieve a caller on hold

Press the  button.

### ▲ Answer queued call


Dial **7 + #** to retrieve the next caller in your queue.

### Answer FortiVoice call waiting

Press the *OK* button.

### Screened transfer


Press the  button + **<extension>** (or outside number) + **#**. When the recipient answers:

- press the  button or hang up to complete the transfer;


or

- press the *OK* button and scroll to select *Cancel Transfer*.

### Blind transfer

Press the  button + **<extension>** (or outside number) + **#**, then hang up.

### Voicemail transfer

Press the  button + **\*** + **<extension>** + **#**, then hang up.



### Conference call

Press the button + <extension> (or outside number) + **#**. Press the *OK* button and scroll to select *Conference*.

### Park a caller

Press the button + **\* 5 1 0** + **#**. The system will respond with a parking orbit.

#### ▲ Retrieve a parked caller

Dial **\* \*** + orbit + **#**.

#### ▲ Two-way intercom/group paging to FortiFone telephones

Dial **\* 8 4** (Intercom) + **\* 8 5** (Paging) + <extension> + **#**.

#### ▲ Attach account code to last call

At dial tone, dial **\* 8 8** + **#**. When prompted, enter <Account code> + **#**.  
CDR logging must be active.

## Voicemail

Access Mailbox — Locally



Access Mailbox — Remotely

**\* \*** + <mailbox number>

Change greeting options

**2**

Change personal options (password, date stamp, remote notification options)

**3**

### MESSAGE PLAYBACK CONTROLS

Rewind 10 seconds

**1**

Go to beginning

**1 1**

Skip ahead 10 seconds

**3**

Skip to end of message

**3 3**

Check time and date stamp

**5**

Forward message

**6**

Delete message

**7**

Save message

**9**

Skip to next message

**#**



## Updating the Firmware

In the System Management software, go to *Tools > Update Phones* and follow the instructions.


# Troubleshooting

## Information

The phone provides the means to quickly view the network parameters (IP address, default gateway address, and subnet-mask), server IP addresses (SIP servers, TFTP server, and SNTP server), results of the last file download attempt, boot version, and hardware and firmware version. This information may be useful if calling Fortinet Support.

- Press the  button, select 8. *Information* and press the *OK* button.
- Press the *Down* navigation button to scroll through the parameters.
- Press the  button to exit the menu.

## Troubleshooting Guide

Symptom	Corrective Action
Nothing showing on the LCD	<ol style="list-style-type: none"><li>1. Ensure the power adapter is plugged in.</li><li>2. Check/replace AC/DC adapter.</li></ol>
Phone displays “Obtaining IP Address” for more than 2 minutes	The DHCP server is not responding. <ol style="list-style-type: none"><li>1. Check if the DHCP server is online or reboot the router/device.</li><li>2. Check your VLAN settings if enabled. To exit the DHCP searching mode, press the  button 3 times. The phone will complete the boot and return to idle.</li></ol>
“Not Registered” on LCD	<ol style="list-style-type: none"><li>1. Ensure the MAC address in the phone system configuration is correctly entered then save and reboot the phone.</li><li>2. Ensure the phone type is the same as the model you have.</li><li>3. Ensure the TFTP IP address is correct. To verify, see the <i>Updating the Firmware</i> section.</li><li>4. Check the network connections and firewall settings at the phone system location if using as an external extension.</li></ol>
No dial tone when off-hook	<ol style="list-style-type: none"><li>1. Ensure the RJ-45 LAN cable is connected correctly.</li><li>2. Ensure the phone is registered with a phone system. See the previous topic for more information.</li></ol>
No audio during a call	<ol style="list-style-type: none"><li>1. Check the handset connections.</li><li>2. Make sure the phone is properly registered with the phone system.</li><li>3. Check the network connections and firewall settings at the phone system location if using as an external extension.</li></ol>

# Appendix A. Specifications

## Hardware Specifications

Item	FON-260i
Network Interface	RJ-45 IEEE 802.3 Ethernet/Fast Ethernet switch port
PC/Workstation Interface	RJ-45 IEEE 802.3 Ethernet/Fast Ethernet switch port
Power	AC/DC Power Adapter
LED Indicators	Message Indicator
LCD	128 x 32 dot graphic
Physical Size (H x W x D)	19.5 x 19.5 x 11.2 cm 7.7 x 7.7 x 4.4 inches
Weight	0.64 kg 1.41 lbs
AC/DC Adapter	Output: 48V DC, 0.3A (max.) Input: 100–240V AC, 50/60 Hz.
Operation Temperature	0–50°C 32–122°F
Storage Temperature	-20–60°C -4–140°F
Operation Humidity	0–85% RH, non-condensing
Audio	Acoustic Echo Canceller and Voice Active Detection
Codecs	G.711, G.729a/b

# Appendix B. Character Table for Dial Pad Mode

The phone supports a special character mode for entering non-numeric characters. The table below covers all possible character options.

Digit	Dial Pad Mode		
	Upper Case ‘[A]’	Lower Case ‘[a]’	Symbols ‘[*]’
1	@ : /	@ : /	@ : /
2	A B C	a b c	\$ %
3	D E F	d e f	^ & _
4	G H I	g h i	( ) ?
5	J K L	j k l	- + , /
6	M N O	m n o	< > =
7	P Q R S	p q r s	; :
8	T U V	t u v	' " `
9	W X Y Z	w x y z	{ }
0	. , ? !	. , ? !	. , ? !
*	. *	. *	. *
#	Space (‘ ’)	Space (‘ ’)	# [ ]

# Regulatory and Safety Notices

## Radio Frequency Emissions

### FCC Compliance Statement

This device complies with Part 15 rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a different circuit from that to which the receiver is connected.

If problems persist, consult the dealer or an experienced radio/TV technician for help.

### Canadian Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with Class B Limits of Industry Canada. 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.

### European Union Declarations of Conformity

Fortinet declares that the equipment specified in this document, which bears the “CE” mark, conforms to the European Union Radio and Telecommunications Terminal Equipment Directive (R&TTE 1999/5/EC) including,

- Electromagnetic Compatibility Directive (89/336/EEC) and
- Low Voltage Directive (73/23/EEC)

The product fulfills the essential requirements of the harmonized standards shown above.

## Product Safety Instructions

This product complies with and conforms to the following international Product Safety standards as applicable:

- Safety of Information Technology Equipment, IEC 60950-1, including
- Relevant national deviations as listed in Compliance with IEC for Electrical Equipment (IECEE)
- Safety of Information Technology Equipment, CAN/CSA-C22.2 No. 60950-1/UL 60950-1

## E-911 and use with Multi-line Telephone Systems

Please note the use and operation of this phone as part of a multi-line telephone system (MLTS) may be subject to state and/or federal E-911 MLTS laws that require the MLTS to provide a caller's telephone number, extension, and physical location to applicable state and/or local emergency services when a caller initiates a 911 call. The MLTS may not provide a caller's telephone number, extension, or physical location information to emergency services when a caller dials 911, and compliance with state and/or federal E-911 MLTS laws is the sole responsibility of the purchaser of this phone.

## Privacy

This phone implements security and encryption technologies. However, privacy of communications may not be ensured when using this telephone.

# Warranty

This phone is covered by a one-year hardware warranty against manufacturing defects as set forth in the EULA.

[www.fortivoice.com/support](http://www.fortivoice.com/support)

For warranty service:

- ***In North America***, please call 1-866-648-4638 for further information.
- ***Outside North America***, contact your sales representative for return instructions.

You will be responsible for shipping charges, if any. When you return this telephone for warranty service, you must present proof of purchase.

