



# FortiFone™ QuickStart Guide

for FON-450i/460i and FON-550i/560i



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# Introduction

## Phone Features

- Backlit LCD display (FON-450i/460i)
- Flexible keys with LEDs
- Message waiting with indicator lamp and tone
- Full duplex speakerphone
- Intercom paging
- Built-in two-port, 10/100/1000 Ethernet switch.  
(10/100 on FON-450i/550i)  
Lets you share a connection with your computer.
- Inline PoE support eliminates the need for power adapters.
- Ability to add two FortiFone FF-50e expansion modules for an additional 24 keys.\*
- Optional *Bluetooth*® module compatible with supported headsets.\*

\* Not available for the FON-450i/460i

## Requirements

- SIP-based phone system such as the FortiVoice™ series of phone systems or a VoIP service provider account.
- Ethernet or fast Ethernet network for connection.
- Power source

For Ethernet networks that supply in-line power:

- The network devices must conform to IEEE 802.3af specifications for PoE (Power over Ethernet)

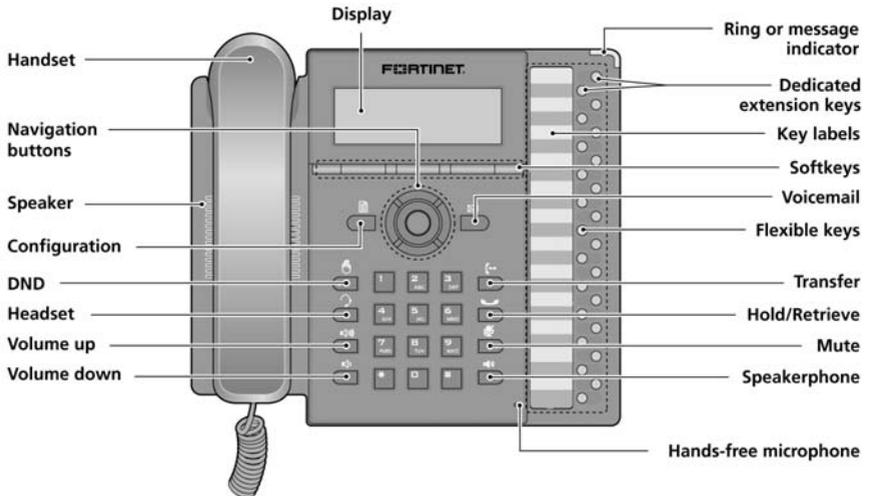
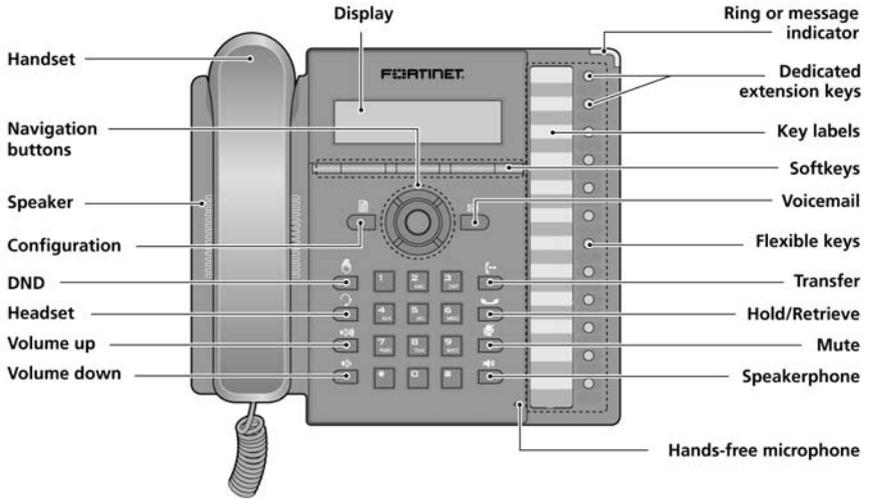
For Ethernet networks that **do not** supply power to the phone:

- Use only the power supply designed for the region you intend to use the product. This adapter is rated with an output of 48v DC at 0.3 A and a positive tip.

# About this Guide

This guide describes how to set up your phone for use with FortiVoice and a brief overview of features. For detailed instructions, download the user guide from <http://docs.fortinet.com>.

**Figure 1:** FON-450i/460i Front (above) / FON-550i/560i Front (below)



Item	Function
	<i>Softkeys</i> — softkeys change function based on the state of the phone.
	<i>Flexible keys</i> — multi-colored LED keys that can be assigned to engage and monitor lines, extensions or queues. They can also be programmed as function and speed dial keys. Keys 1 and 2 are reserved for primary and secondary line appearance for the extension. Keys 3–12 or 24 (for the FON-450i/460i or FON-550i/560i, respectively) are programmable.
	<p><i>Navigation buttons and OK button</i></p> <p><i>Left</i> — view previous menu when return arrow ↩ appears in the LCD menu. Press to go back to previous menus while in the <i>Configuration</i> menu.</p> <p><i>Right</i> — see additional menu items when → appears in the LCD menu.</p> <p><i>Up</i> — view Call Log when phone is idle.</p> <p><i>Down</i> — access Phone Book while phone is idle.</p> <p><i>OK</i> — center button. Select current item or save value in the <i>Configuration</i> menu.</p>
	<i>Configuration</i> — access the <i>Configuration</i> menu.
	<i>Voicemail</i> — access voicemail status and messages.
	<i>DND</i> — toggle do not disturb on and off.
	<i>Headset</i> — toggle the headset on and off-hook.
	<i>Volume control</i> — adjust ring, headset, handset, and speaker volume.
	<i>Transfer</i> — transfer a call.
	<i>Hold/Retrieve</i> — place or retrieve a call on hold.
	<i>Mute</i> — mute and unmute the microphone during calls.
	<i>Speakerphone</i> — engage the speakerphone and hang up after the call.

## Flexible Key States

Flexible keys assigned for line, extension or queue appearances will monitor the status of those resources

Status	LED Color	LED Pattern
Incoming call	Green	Flashing approximately once every 1/2 second
Line in use on this phone	Green	On solid
Call on hold at extension	Green	Flashing approximately once every second
Line/extension/queue ringing	Green	Flashing approximately once every 1/2 second
Line/extension/queue in use	Red	On solid
Line/extension/queue on hold	Red	Flashing approximately once every second
Extension/line not registered	Red/yellow	Alternating red and yellow
Do not disturb (DND) enabled	Yellow	On solid

## Display Layout

The bottom line shows choices associated with the three context-sensitive softkeys located just below the display.

On an FON-550i/560i, the top-bar status line displays icons, date and time. Below is a list of icons and their meaning.



LAN or Network connection. Indicates the status of the LAN connection to the IP phone. If the icon is blinking, check the LAN connection.



PC port. Indicates a device such as a PC is connected to the PC port of the IP phone.



*Bluetooth*. Indicates the optional *Bluetooth* module is properly installed with no headsets paired to the phone. When blinking rapidly, the phone is searching or attempting to pair with a headset.



*Bluetooth* paired. Indicates one or more (maximum 5) headsets are paired with the module but none are active. When blinking rapidly, the phone is attempting to pair or connect a headset.



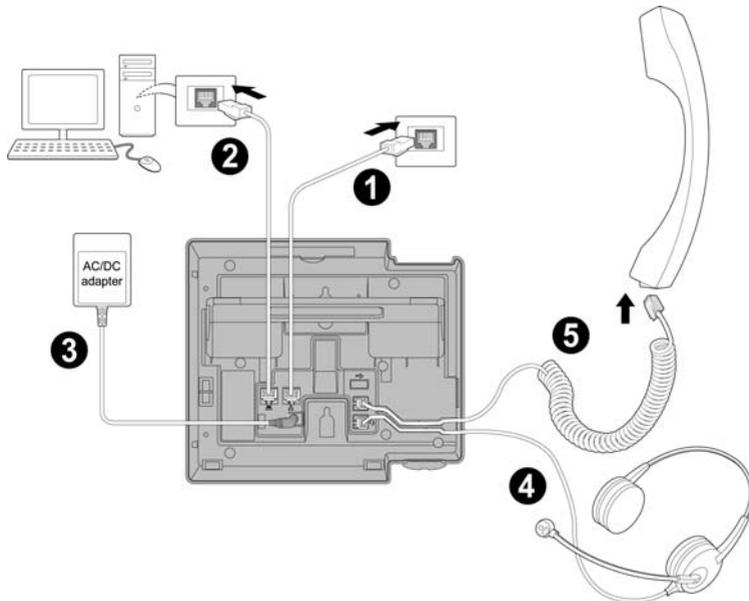
*Bluetooth* connected. Indicates a headset is connected to the FON-550i. When blinking rapidly, the phone is searching or attempting to pair or disconnect a headset. When blinking slowly, the *Bluetooth* headset is in use.

# 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. The phone supports Power over Ethernet (PoE) in accordance with the IEEE-802.1af Class 2 standard. When connected to a PoE compliant LAN port, the phone derives power from the port. If the LAN port does not support PoE, use the AC/DC adaptor (sold separately). The handset connects to the base with the coiled handset cord.

**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).

		Wiring Chart
3	<b>Power</b>	If the LAN port supports PoE, the power adapter is not required. If PoE is not supported on the LAN, connect the power adapter to the power jack on phone.
4	<b>Headset</b>	Optionally connect a headset to the RJ22 headset jack on the phone. We strongly recommend the use of an amplified headset.
5	<b>Handset</b>	Connect the handset cord to the handset and the handset jack on the phone.

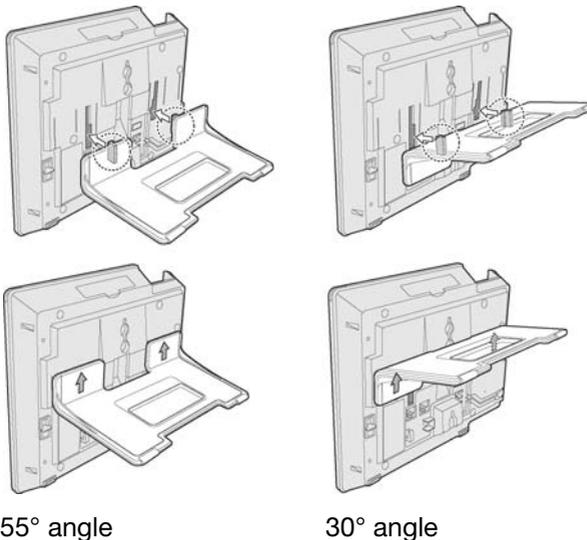
## Attaching the Stand

The angle of the phone is set by the attachment of the provided stand in one of two positions (30° or 55°).

To attach the stand,

1. Choose the desired angle for the phone.
2. Align the tabs on the stand with the notches in the base of the phone.
3. Push the stand upward in the slot as far as it can go until properly attached.

**Figure 3:** Installing the foot stand



55° angle

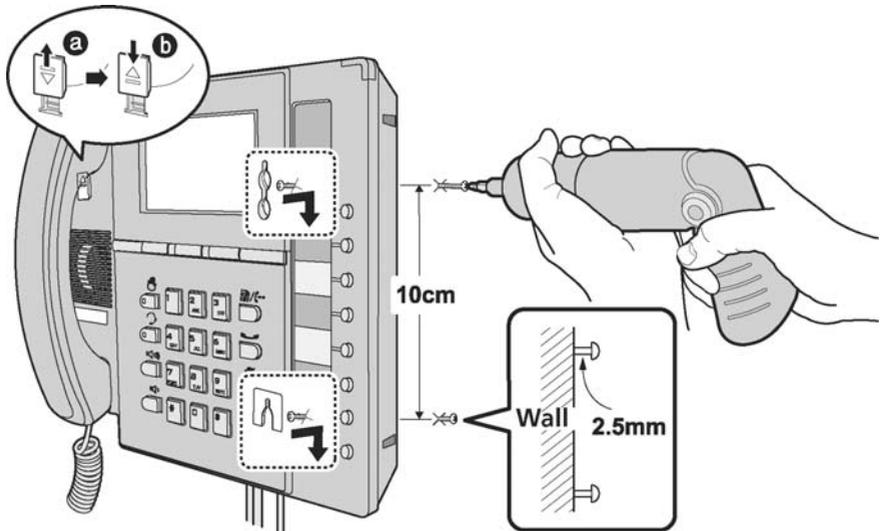
30° angle

# Wall Mounting

Wall mount the phone using the instructions below.

- Mark and drill two 7 mm (5/16") holes for plastic wall anchors (not included) with a vertical separation of 10 cm (4").
- Insert two anchors into the holes, then insert and tighten two screws (not included) leaving about 2.5 mm (1/8") exposed.
- Attach all wiring to the phone.
- Slide the phone over the screws and ensure the phone is secure. It may be necessary to remove the phone and tighten or loosen the screws for secure mounting. The stand must not be attached to the phone when mounting on a wall.
- Remove the handset hook from the phone as shown in the figure below (illustration a). Reverse the hook and re-install so that the hook catches the groove in the handset receiver (illustration b).
- Complete all wiring.

**Figure 4:** Wall mount installation



# Provisioning the Phone

For instructions on programming your FortiVoice phone system for the phone, refer to “Adding IP Phones” in Chapter 2 of the *FortiVoice User Guide*.

## For internal use (connected to the office LAN)

The phone supports ‘plug and play’ installation employing the automated provisioning process for discovering FortiVoice phone systems on the same LAN.

After discovering the FortiVoice system on the LAN, the phone downloads the configuration and registers with FortiVoice. If the extension was pre-configured via the FortiVoice Management software, then the phone display should show the extension number and name. If not yet configured in the FortiVoice system, then the MAC address of the phone will be visible as a choice in the MAC select list for that model of phone in the *Local Extensions* section of the FortiVoice configuration.

## For external use (connected over the Internet)

When connecting your IP phone at a remote location for external use, please perform the following steps:

1. Preconfigure the extension in the FortiVoice Management software.
2. Power up the phone and press the  button, then go to 3. *Phone Settings*.
3. Go to 7. *Firmware Update* and press the *Select* softkey.
4. From the *Firmware Update* menu, select 2. *TFTP Server Address*.
5. Enter the Public IP address or FQDN of your FortiVoice system. Press the *OK* softkey.
6. Press the  button to exit the configuration then press the *Yes* softkey to reboot the phone.



If the top 2 LED keys continue to flash red/yellow after 30 seconds, the phone is not registered with the phone system. See “Troubleshooting” on page 14.

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*.

If you are connecting to the phone via the web interface, the login is: `admin` and the password is `23646`. For information on the web interface, refer to the phone’s user guide.

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## Advanced Configuration

For further instructions on how to personalize your phone, refer to its user guide found here:

<http://www.fortivoice.com/support/documentation/phones/index.html>.

# Using your Phone with FortiVoice

## Accessing 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. You can select a line directly if it has a programmed key.

## 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

Press the  button to toggle on/off.

### ▲ Pick up — Any ringing extension

Press the programmed *Pickup* key, or dial **\* 9 + #**.

### ▲ Pick up — Specific extension

Press the programmed key associated with the extension ringing or dial **\* 7 + extension + #**.

### Place a caller on hold

Press the  button.

### Retrieve a caller on hold

Press the  button or press the flashing key associated with the call on hold.

### ▲ Answer queued call

Press the flashing key associated with the call in the queue. Otherwise, dial **7 + #** to retrieve the next caller in your queue.

### Answer FortiVoice call waiting

Press the *Answer* softkey or press the flashing line appearance key.

## Conference call

Press the *Right* navigation button, then press the *Conf.* softkey to put the first party on hold. Call the second party (for external calls, first access an outside line). Press the *Join* softkey to connect to all parties.

## Screened transfer

Press the **[↔]** button + <extension> (or outside number) + **#**. To complete the transfer, press the *Transfer* softkey or hang up. To cancel transfer, press the *EndCall* softkey and then the *Resume* softkey to connect to the caller on hold.

## Blind transfer

Press the **[↔]** button + <extension> (or outside number) + *Dial* softkey, then hang up. If an extension is tied to a programmable key, then during the call, press that key to transfer.

## Voicemail transfer

Press the **[↔]** button + **\***  + <extension> + *Dial* softkey, then hang up.

## Park a caller

Press the programmed *Park* key. Otherwise, press the **[↔]** button + **\* 5 1 0** + **#**. The system will respond with a parking orbit.

### ▲ Retrieve a parked caller

At the dial tone, press the programmed *UnPark* key, then dial orbit + **#**. Otherwise, dial **\* \***  + orbit + **#**.

### ▲ Two-way intercom/group paging to FortiVoice phones

Press the programmed *Intercom* or *Group Page* key + <extension> + *Dial* softkey. Otherwise dial **\* 8 4** (Intercom) or **\* 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**

Press the *Vmail* softkey or ☒

**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

Update the firmware in the phone system Management software.

Go to *Tools > Update Phones* and follow the instructions.

# Troubleshooting

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><li>3. Check/correct input power from the LAN if using PoE.</li></ol>
Phone displays “Obtaining IP Address” for more than 2 minutes	<p>The DHCP server is not responding.</p> <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>
LEDs flash red and yellow on keys associated to SIP accounts (keys 1 and 2)	<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 (FON-450i/FON-550i) is the same as the model you have.</li><li>3. Ensure the TFTP IP address is correct. To verify, see <a href="#">“Updating the Firmware” on page 13</a>.</li><li>4. Check 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/headset connections</li><li>2. Make sure the phone is properly registered with the phone system.</li><li>3. Check network connections and firewall settings at the phone system location if using as an external extension.</li></ol>

# 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.

# Limited Warranty

This phone is covered by a one-year limited warranty against manufacturing defects.

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

For warranty service:

- ***In North America***, please call 1-866-393-9960 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.

