

Avaya 1230 IP Deskphone User Guide

Avaya Communication Server 1000

Document Status: **Standard**Document Version: **07.01.AB**Part Code: **NN43142-101**

Date: **July 2016**



© 2012 Avaya Inc. All Rights Reserved.

Notice

While reasonable efforts have been made to ensure that the information in this document is complete and accurate at the time of printing, Avaya assumes no liability for any errors. Avaya reserves the right to make changes and corrections to the information in this document without the obligation to notify any person or organization of such changes.

Documentation disclaimer

"Documentation" means information published by Avaya in varying mediums which may include product information, operating instructions and performance specifications that Avaya generally makes available to users of its products. Documentation does not include marketing materials. Avaya shall not be responsible for any modifications, additions, or deletions to the original published version of documentation unless such modifications, additions, or deletions were performed by Avaya. End User agrees to indemnify and hold harmless Avaya, Avaya's agents, servants and employees against all claims,

lawsuits, demands and judgments arising out of, or in connection with, subsequent modifications, additions or deletions to this documentation, to the extent made by End User.

Link disclaimer

Avaya is not responsible for the contents or reliability of any linked websites referenced within this site or documentation provided by Avaya. Avaya is not responsible for the accuracy of any information, statement or content provided on these sites and does not necessarily endorse the products, services, or information described or offered within them. Avaya does not guarantee that these links will work all the time and has no control over the availability of the linked pages.

Warranty

Avaya provides a limited warranty on its hardware and Software ("Product(s)"). Refer to your sales agreement to establish the terms of the limited warranty. In addition, Avaya's standard warranty language, as well as information regarding support for this Product while under warranty is available to Avaya customers and other parties through the Avaya Support website:

http://support.avaya.com

Please note that if you acquired the Product(s) from an authorized Avaya reseller outside of the United States and Canada, the warranty is provided to you by said Avaya reseller and not by Avaya. "Software" means computer programs in object code, provided by Avaya or an Avaya Channel Partner, whether as stand-alone products or pre-installed on hardware products, and any upgrades, updates, bug fixes, or modified versions thereto.

Licenses

THE SOFTWARE LICENSE TERMS AVAILABLE ON THE AVAYA WEBSITE, HTTP:// SUPPORT.AVAYA.COM/LICENSEINFO ARE APPLICABLE TO ANYONE WHO DOWNLOADS, USES AND/OR INSTALLS AVAYA SOFTWARE. PURCHASED FROM AVAYA INC., ANY AVAYA AFFILIATE, OR AN AUTHORIZED AVAYA RESELLER (AS APPLICABLE) UNDER A COMMERCIAL AGREEMENT WITH AVAYA OR AN AUTHORIZED AVAYA RESELLER. UNLESS OTHERWISE AGREED TO BY AVAYA IN WRITING, AVAYA DOES NOT EXTEND THIS LICENSE IF THE SOFTWARE WAS OBTAINED FROM ANYONE OTHER THAN AVAYA, AN AVAYA AFFILIATE OR AN AVAYA AUTHORIZED RESELLER: AVAYA RESERVES THE RIGHT TO TAKE LEGAL ACTION AGAINST YOU AND ANYONE ELSE USING OR SELLING THE SOFTWARE WITHOUT A LICENSE. BY INSTALLING, DOWNLOADING OR USING THE SOFTWARE, OR AUTHORIZING OTHERS TO DO SO, YOU, ON BEHALF OF YOURSELF AND THE ENTITY FOR WHOM YOU ARE INSTALLING, DOWNLOADING OR USING THE SOFTWARE (HEREINAFTER REFERRED TO INTERCHANGEABLY AS "YOU" AND "END USER"), AGREE TO THESE TERMS AND CONDITIONS AND CREATE A BINDING CONTRACT BETWEEN YOU AND AVAYA INC. OR THE APPLICABLE AVAYA AFFILIATE ("AVAYA").

Heritage Nortel Software

"Heritage Nortel Software" means the software that was acquired by Avaya as part of its purchase of the Nortel Enterprise Solutions Business in December 2009. The Heritage Nortel Software currently available for license from Avaya is the software contained within the list of Heritage Nortel Products located at http:// support.avaya.com/licenseinfo under the link "Heritage Nortel Products". For Heritage Nortel Software, Avaya grants Customer a license to use Heritage Nortel Software provided hereunder solely to the extent of the authorized activation or authorized usage level, solely for the purpose specified in the Documentation, and solely as embedded in, for execution on, or (in the event the applicable Documentation permits installation on non-Avaya equipment) for communication with Avaya equipment. Charges for Heritage Nortel Software may be based on extent of activation or use authorized as specified in an order or invoice.

Copyright

Except where expressly stated otherwise, no use should be made of materials on this site, the Documentation, Software, or hardware provided by Avaya. All content on this site, the documentation and the Product provided by Avaya including the selection, arrangement and design of the content is owned either by Avaya or its licensors and is protected by copyright and other intellectual property laws including the sui generis rights relating to the protection of databases. You may not modify, copy, reproduce, republish, upload, post, transmit or distribute in any way any content, in whole or in part, including any code and software unless expressly authorized by Avaya. Unauthorized reproduction, transmission, dissemination, storage, and or use without the express

written consent of Avaya can be a criminal, as well as a civil offense under the applicable law.

Third-party components

"Third Party Components" mean certain software programs or portions thereof included in the Software that may contain software (including open source software) distributed under third party agreements ("Third Party Components"), which contain terms regarding the rights to use certain portions of the Software ("Third Party Terms"). Information regarding distributed Linux OS source code (for those Products that have distributed Linux OS source code) and identifying the copyright holders of the Third Party Components and the Third Party Terms that apply is available in the Documentation or on Avaya's website at: http://support.avaya.com/Copyright. You agree to the Third Party Terms for any such Third Party Components.

Note to Service Provider

The Product may use Third Party Components that have Third Party Terms that do not allow hosting and may need to be independently licensed for such purpose.

Preventing Toll Fraud

"Toll Fraud" is the unauthorized use of your telecommunications system by an unauthorized party (for example, a person who is not a corporate employee, agent, subcontractor, or is not working on your company's behalf). Be aware that there can be a risk of Toll Fraud associated with your system and that, if Toll Fraud occurs, it can result in substantial additional charges for your telecommunications services.

Avaya Toll Fraud intervention

If you suspect that you are being victimized by Toll Fraud and you need technical assistance or support, call Technical Service Center Toll Fraud Intervention Hotline at +1-800-643-2353 for the United States and Canada. For additional support telephone numbers, see the Avaya Support website: http://support.avaya.com.Suspected security vulnerabilities with Avaya products should be reported to Avaya by sending mail to: securityalerts@avaya.com.

Trademarks

The trademarks, logos and service marks ("Marks") displayed in this site, the Documentation and Product(s) provided by Avaya are the registered or unregistered Marks of Avaya, its affiliates, or other third parties. Users are not permitted to use such Marks without prior written consent from Avaya or such third party which may own the Mark. Nothing contained in this site, the Documentation and Product(s) should be construed as granting, by implication, estoppel, or otherwise, any license or right in and to the Marks without the express written permission of Avaya or the applicable third party.

Avaya is a registered trademark of Avaya Inc.

All non-Avaya trademarks are the property of their respective owners, and "Linux" is a registered trademark of Linus Torvalds.

Downloading documents

For the most current versions of documentation, see the Avaya Support website:

http://support.avaya.com

Contact Avaya Support

See the Avaya Support website: http://support.avaya.com for product notices and articles, or to report a problem with your Avaya product.

For a list of support telephone numbers and contact addresses, go to the Avaya Support website: http://support.avaya.com, scroll to the bottom of the page, and select Contact Avaya Support.

Revision history

July 2016

Draft 07.01.AB. This document is up-issued to update the power source specification that meets the level 6 requirement.

November 2012

Draft 07.01.AA. This document is up-issued to support Avaya Communication Server 1000 Release 7.6.

May 2011

Standard 06.03. This document is up-issued to reflect changes in global powerr supply information.

March 2011

Standard 06.03. This document is up-issued to reflect changes in the procedures for cancelling Call Forward.

December 2010

Standard 06.02. This document is up-issued to support UNIStim 5.0 and Avaya Communication Server 1000 Release 7.5.

October 2010

Standard 06.01. This document is up-issued to support UNIStim 5.0 and Avaya Communication Server 1000 Release 7.5.

June 2010

Standard 05.02. This document is up-issued to reflect changes in technical content for Call Log Options.

June 2010

Standard 05.01. This document is up-issued to support Avaya Communication Server 1000 Belease 7.0.

October 2009

Standard 04.01. Because of the similarity between Communication Server 1000 Release 6.0 for UNIStim 4.0 features and Release 5.5 features, UNIStim 4.0 Release 6.0 documentation is also used for Release 5.5.

May 2009

Standard 03.01. This document is up-issued to support Communication Server 1000 Release 6.0.

April 2008

Standard 02.01. This document is up-issued to support Communication Server 1000 Release 5.5 for UNIStim 3.0.

April 2008

Standard 01.09. This document is up-issued to support Communication Server 1000 Release 5.5.

April 2008

Standard 01.08. This document is up-issued to support Communication Server 1000 Release 5.5.

March 2008

Standard 01.07. This document is up-issued to support Communication Server 1000 Release 5.5 and to contain updates to the links in the document.

February 2008

Standard 01.06. This document is up-issued to support Communication Server 1000 Release 5.5 and to contain updates to the images.

January 2008

Standard 01.05. This document is up-issued to support Communication Server 1000 Release 5.5 and to contain updates to the document.

December 2007

Standard 01.04. This document is up-issued to support Communication Server 1000 Release 5.5 and to contain updates to the document.

December 2007

Standard 01.03. This document is up-issued to support Communication Server 1000 Release 5.5 and to contain description of the Copy key.

December 2007

Standard 01.02. This document is up-issued to support Communication Server 1000 Release 5.5 and to reflect changes to the images.

December 2007

Standard 01.01. This document is issued to support Communication Server 1000 Release 5.5.

Revision history

Contents

welcome
Feature overview
Regulatory and safety information 15
DenAn regulatory notice for Japan
Customer service 24
Using your Avaya 1230 IP Deskphone 25
Getting started
Before you begin
Avaya 1230 IP Deskphone controls
Avaya 1230 IP Deskphone display
License notification
Call features and Flexible Feature Codes 33
Audio and text message broadcast
Installing your Avaya 1230 IP Deskphone 38
Attaching the foot stand (optional) 37
Connecting the handset
Connecting the headset (optional)
Connecting AC power (optional)
Connecting the LAN Ethernet cable
Connecting the PC Ethernet cable
Wall-mounting the IP Deskphone (optional) 40
Basic features 4
Telephone Options
Adjusting volume

Adjusting the display screen contrast 45
Selecting a language
Configuring a headset47
Selecting date and time format
Accessing display diagnostics
Selecting a local dialpad tone
Viewing IP Deskphone information
Performing diagnostics
Configuring Call Log Options
Selecting a ring type 59
Enabling or disabling Call Timer
Enabling OnHook Default Path 61
Changing feature key labels 61
Configuring the name display format
Configuring Live Dialpad
Advanced features 67
Managing your Station Control Password 68
Configuring an Electronic Lock on your IP Deskphone 70
Customizing the Personal Directory
Configuring the Local Tools menu
Using Virtual Office
Operating your Avaya 1230 IP Deskphone 89
Entering and editing text
Making a call
Answering a call 109
Managing calls while not on a call
Managing calls during a call

Managing calls while away from your desk	121
Managing multiparty calls	127
Managing calls while busy at work	132
Hotel applications	134
Paging Features	142
Call Override features	145
Using Centrex services	149
Miscellaneous call features	150
Troubleshooting your Avaya 1230 IP Deskphone	160
Virtual Office	160
Flexible Feature Codes	163
Avaya 1200 IP Deskphone LCD Expansion Module	165
Basic features	165
Keys and descriptions	166
Quick Reference	169
Feature operation	169
Legend	170
Services and Telephone Options menus	170
Third party terms	173
Third Party Terms for UNIStim sw releases 4.1 thru 5.0 (Jan 2010 - Nov 2010)	173
Appendix	193
Sample configuration file	193
Terms you should know	203
Index	209

Welcome

Your Avaya 1230 IP Deskphone brings voice and data to your desktop. The Avaya 1230 IP Deskphone can directly connect to a Local Area Network (LAN) through an Ethernet connection.

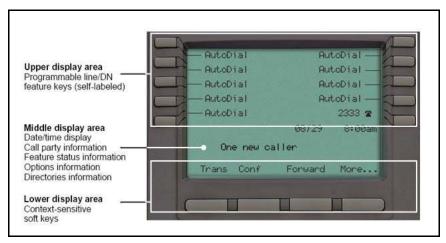
This guide contains the following topics:

- "Using your Avaya 1230 IP Deskphone" on page 25
- "Installing your Avaya 1230 IP Deskphone" on page 35
- "Basic features" on page 41
- "Advanced features" on page 67
- "Operating your Avaya 1230 IP Deskphone" on page 89
- "Troubleshooting your Avaya 1230 IP Deskphone" on page 160
- "Avaya 1200 IP Deskphone LCD Expansion Module" on page 165

In this guide, self-labeled line or programmable feature key labels are displayed beside the keys, and context-sensitive soft key labels are displayed directly above the keys.

Figure 1 on page 11 shows the key labels.

Figure 1: Programmable feature keys and context-sensitive soft keys



Feature overview

Your Avaya 1230 IP Deskphone supports the following features:

four context-sensitive soft keys (self-labeled)

Note: Context-sensitive soft keys are Avaya Communication Server dependent. Some IP Deskphones are not configured to support context-sensitive soft key functionality. Contact your system administrator for further details.

- six specialized fixed keys
 - Quit
 - Directory
 - Message (Inbox)
 - Redial
 - Services
 - Conference
- six fixed call-processing keys
 - Mute
 - Handsfree
 - Goodbye
 - Applications
 - Headset
 - Hold
- wall-mountable
- LCD display screen
- high-quality speaker phone
- volume control keys to adjust the ringer, speaker, handset, and headset volume
- hearing aid compatibility
- Second Page Functionality to access a second page of features using the left and right keys
- · 20 programmable feature keys:
 - ten keys for user-defined feature key labels

- ten lines/features you can access through Second Page Functionality
- headset jack
- handset jack
- 10/100 Ethernet ports
 - one Ethernet port for LAN connection
 - one Ethernet port for optional PC connection
- Power over Ethernet (PoE) or power through a supported AC adapter
- support for Network Diagnostic Utility
- Accessory Expansion Module (AEM) port to connect the Expansion Module
- supports special text display and audio message playing (see "Audio and text message broadcast" on page 34)
- supports wideband audio when the IP Deskphone is equipped with a wideband-capable handset. You must supply your own widebandcapable handset.
- supports wideband audio when the IP Deskphone is equipped with a wideband-capable headset. You must supply your own widebandcapable headset.

The Avaya 1230 IP Deskphone does not support wideband audio using the internal speakerphone or the WML Browser.

Figure 1 on page 11 shows the Avaya 1230 IP Deskphone.

Figure 2: Avaya 1230 IP Deskphone



Regulatory and safety information

This equipment has been tested and complies with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits 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 according to the instructions, can cause harmful interference to radio communications. However, there is no guarantee that interference cannot occur in a particular installation. If this equipment causes harmful interference to radio or television reception, which you can determine by turning the equipment off and on, you are encouraged to try to correct the interference by performing one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.

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.

Warnings

- This is a Class B product. In a domestic environment this product can cause radio interference; in which case, you must take adequate measures.
- Operation is subject to the following two conditions: (1) this device cannot cause interference, and (2) this device must accept interference, including interference that can cause undesired operation of the device.

この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをして下さい。

Jurisdiction	Standard	Description
United States	UL 60950-1	ITE equipment - Safety - Part 1: General requirements
Canada	CSA 60950-1-03	ITE equipment - Safety - Part 1: General requirements
European Community	EN 60950-1 +A11	ITE equipment - Safety - Part 1: General requirements
Australia/New Zealand	AS/NZS 60950.1:2003	Safety of Information Technology Equipment

Other Safety Approvals: IEC 60950-1: ITE equipment - Safety - Part 1: General requirements

Table 1 on page 16 shows the EMC compliance for various jurisdictions

Table 1: EMC compliance for various jurisdictions (Part 1 of 2)

Jurisdiction	Standard	Description
United States	FCC CFR 47 Part 15	Class B Emissions: FCC Rules for Radio Frequency Devices
Canada	ICES-003	Class B Emissions: Interference- Causing Equipment Standard: Digital Apparatus
Australia/ New Zealand	CISPR 22	Class B Emissions: Information technology equipment - Radio disturbance

Table 1: EMC compliance for various jurisdictions (Part 2 of 2)

Jurisdiction	Standard	Description
European Community	EN 55022	Class B Emissions: Information technology equipment - Radio disturbance
	EN 55024	Information technology equipment - Immunity characteristics Limits and methods of measurement
	EN 61000-3-2	Limits for harmonic current emissions (equipment input current <= 16 A per phase)
	EN 61000-3-3	Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current <= 16 A
Japan	VCCI	Regulations for voluntary control measures.

Table 2 on page 17 shows the Safety compliance for various jurisdictions.

Table 2: Safety compliance for various jurisdictions (Part 1 of 2)

Jurisdiction	Standard	Description
United States	UL 60950-1	Safety of Information Technology Equipment
Canada	CSA 60950-1-03	Safety of Information Technology Equipment

Table 2: Safety compliance for various jurisdictions (Part 2 of 2)

Jurisdiction	Standard	Description
European Community	EN 60950-1	ITE equipment - Safety - Part 1: General requirements
Australia/ New Zealand	AS/NZS 60950.1:2003	Safety of Information Technology Equipment

Other Safety Approvals: IEC 60950-1: ITE equipment - Safety - Part 1: General requirements.

Other

US/Canada: Hearing Aid Compatibility (HAC) as per FCC Part 68

This equipment complies with the CE Marking requirements. []



Australia: AS/ACIF S004: Voice Frequency Performance Requirements for Customer Equipment

EU Countries: This device complies with the essential requirements and other relevant provisions of Directive 1999/5/EC. You can obtain a copy of the Declaration from www.avaya.com or Avaya Inc., 211 Mt. Airy Road, Basking Ridge, NJ 07920 USA.

Table 3 on page 18 lists EMC compliance for various jurisdictions

Table 3: EMC compliance (Part 1 of 2)

Jurisdiction	Standard	Description
United States	FCC CFR 47 Part 15	Class A Emissions: FCC Rules for Radio Frequency Devices (see Notes 1 and 2)
Canada	ICES-003	Class A Emissions: Interference- Causing Equipment Standard: Digital Apparatus

Table 3: EMC compliance (Part 2 of 2)

Jurisdiction	Standard	Description
Australia/New Zealand	AS/NZS 3548 CISPR 22	Class A Emissions: Information technology equipment - Radio disturbance
European Community	EN 55022	Class A Emissions: Information technology equipment - Radio disturbance
	EN 55024	Information technology equipment - Immunity characteristics Limits and methods of measurement
	EN 61000-3-2	Limits for harmonic current emissions (equipment input current <= 16 A per phase)
	EN 61000-3-3	Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current <= 16 A

Note 1: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

The user should not make changes or modifications not expressly approved by Avaya. Any such changes could void the user's authority to operate the equipment

· Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.
 Note 2: The user should not make changes or modifications not expressly approved by Avaya. Any such changes could void the user's authority to operate the equipment

This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada

Warnings:

- This is a Class A product. In a domestic environment this product can cause radio interference in which case the user must take adequate measures.
- Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
- Privacy of communications may not be ensured when using this telephone.
- Use the following procedure to prevent radio interference to the licensed service, this device must be operated indoors only and should be kept away from windows to provide maximum shielding.

Table 4: Safety standards

Jurisdiction	Standard	Description
United States	UL 60950-1	ITE equipment - Safety - Part 1: General requirements
Canada	CSA 60950-1-03	ITE equipment - Safety - Part 1: General requirements
European Community	EN 60950-1 +A11	ITE equipment - Safety - Part 1: General requirements
Australia/New Zealand	AS/NZS 60950.1:2003	Safety of Information Technology Equipment

Other

US/Canada: Hearing Aid Compatibility (HAC) as per FCC Part 68 This equipment complies with the CE Marking requirements.

EU Countries: This device complies with the essential requirements and other relevant provisions of Directive 1999/5/EC. A copy of the Declaration may be obtained from Avaya Inc., 211 Mt. Airy Road, Basking Ridge, NJ 07920 USA.

DenAn regulatory notice for Japan



本製品を安全にご使用頂くため、以下のことにご注意ください。

- 接続ケーブル、電源コード、ACアダプタなどの部品は、必ず製品に同梱されております 添付品または指定品をご使用ください。添付品・指定品以外の部品をご使用になると故障 や動作不良、火災の原因となることがあります。
- 同梱されております付属の電源コードを他の機器には使用しないでください。
 上記注意事項を守らないと、死亡や大怪我など人身事故の原因となることがあります。

Marning

Please be careful of the following while installing the equipment:

- Please only use the Connecting cables, power cord, AC adaptors shipped
 with the equipment or specified by Avaya to be used with the equipment.
 If you use any other equipment, it may cause "failures, malfunctioning
 or fire".
- Power cords shipped with this equipment must not be used with any other equipment. In case the above guidelines are not followed, it may lead to death or severe injury

Connecting Power

Use only Avaya-approved Limited Power Source 48 VDC 380 mA or 520 mA (Phihong Technology Co. Ltd: PSAA18U-480) with the IP Deskphone.

Connecting to the Local Area Network

Severe damage to your IP Deskphone can occur if you plug the phone into an ISDN connection. Consult your system administrator to ensure you plug your Avaya 1230 IP Deskphone into a 10/100 BaseT Ethernet jack.

Operation

The earpiece and mouthpiece of the handset can attract and retain small objects.

Location

Avaya recommends that you install your Avaya 1230 IP Deskphone away from direct sunlight.

Customer service

Visit the Avaya Web site to access the complete range of services and support that Avaya provides. Go to www.avaya.com or go to one of the pages listed in the following sections.

Navigation

- "Getting technical documentation" on page 23
- "Getting product training" on page 23
- "Getting help from a distributor or reseller" on page 23
- "Getting technical support from the Avaya Web site" on page 23

Getting technical documentation

To download and print selected technical publications and release notes directly from the Internet, go to www.avaya.com/support.

Getting product training

Ongoing product training is available. For more information or to register, you can access the Web site at www.avaya.com/support. From this Web site, you can locate the Training contacts link on the left-hand navigation pane.

Getting help from a distributor or reseller

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

Getting technical support from the Avaya Web site

The easiest and most effective way to get technical support for Avaya products is from the Avaya Technical Support Web site at www.avaya.com/support.

Using your Avaya 1230 IP Deskphone

After you familiarize yourself with the Avaya 1230 IP Deskphone features, you can start to use the IP Deskphone. This section describes how to use the Avaya 1230 IP Deskphone.

Getting started

The following section introduces the important details of the Avaya 1230 IP Deskphone. Carefully read every section before you operate the new Avaya 1230 IP Deskphone.

- "Before you begin" on page 25
- "Avaya 1230 IP Deskphone controls" on page 26
- "Avaya 1230 IP Deskphone display" on page 32
- "Installing your Avaya 1230 IP Deskphone" on page 35

Before you begin

Take the appropriate precautionary measures before you connect the Avaya 1230 IP Deskphone.



CAUTION

Consult your system administrator to ensure that you plug your IP Deskphone into a 10/100BaseT Ethernet jack. To avoid severe damage to your IP Deskphone, do not plug your Avaya 1230 IP Deskphone into a regular phone jack.



CAUTION

Use your Avaya 1230 IP Deskphone only in an indoor environment.

Avaya 1230 IP Deskphone controls

This section describes the controls on the Avaya 1230 IP Deskphone. Depending on your geographic region, the Avaya 1230 IP Deskphone includes key caps with English text labels. In this document, text in parentheses indicates the labels that appear on the key caps; for example, (Services).



Context-sensitive soft keys are below the LCD. The soft key label is dynamic and depends on the active feature. The label length is a maximum of six characters.



A triangle before a soft key label indicates that the feature is active.

Press the **More** key to access the next layer of context-sensitive soft keys (self-labeled).



The ten keys on either side of the LCD are self-labeled line or programmable feature keys, with labels on the LCD. These keys also function as line (DN) keys. Press the Left or Right arrow keys to access the second page of feature keys. This feature is called Second Page Functionality.



A steadily lit icon beside a **line (DN) key** indicates the line is active. A flashing icon indicates the line is on hold. When a call arrives on a DN key which is not on the currently displayed page of keys, the IP Deskphone automatically displays the page with the active key.

A steadily lit icon beside a feature key indicates the feature is active. A flashing icon indicates the feature is being programmed. When a call arrives on a feature key that is not on the currently displayed page of keys, the IP Deskphone automatically displays the page with the active key.



Use the **Volume control** buttons to adjust the volume of the ringer, handset, headset, speaker, and Handsfree features. Press the upper button to increase the volume, and press the lower button to decrease the volume.



Your **Mute** key functionality is enabled or disabled by your system administrator. Contact your system administrator to determine if your **Mute** key is enabled. If your **Mute** key is enabled, press the **Mute** key to listen to the receiving party without transmitting your voice. Press the **Mute** key again to return to two-way conversation.

Note: If your **Mute** key is not enabled, pressing the **Mute** key places the call on hold. Press the **Mute** key again to restore the active call or press the line key to restore the active call. You cannot retrieve this call from hold by pressing the Hold key.

The Mute key applies to handsfree, handset, and headset microphones. The Mute LED indicator, located on the Mute key, flashes to indicate that the microphone is muted.



(Handsfree)

Press the **Handsfree** key to activate handsfree mode.

Note: The Handsfree LED indicator, on the **Handsfree** key, lights to indicate that Handsfree is in use.



Use the **Navigation** keys to scroll through menus and lists that appear on the LCD screen. The outer part of this key cluster is used for up, down, left, and right movements.

Use the **Up** and **Down** keys to scroll up and down the menu, and the **Left** and **Right** keys to position the cursor. In some dialog boxes that appear on your IP Deskphone, you can also use the **Left** and **Right** keys to select editable fields. Press the **Right** key to select the field below the current selection, or the **Left** key to select the field above the current selection.



Press the **Enter** key, at the center of the navigation key cluster, to confirm menu selections.

In most menus, you can use the **Enter** key instead of the **Select** or **OK** soft key.



(Hold)

Press the **Hold** key to place an active call on hold. Press the **Hold** key again or press the flashing line (DN) key to return to the caller on hold.



(Applications)

Press the **Applications** key to access external server applications.



(Headset)

Press the **Headset** key to answer a call using the headset or to switch a call from the handset or handsfree to the headset.

The Headset LED indicator, embedded in the **Headset** key, lights to indicate that the headset is in use.



Press the **Goodbye** key to end an active call.



When a message is waiting, or there is an incoming call, the red **Message**Waiting\Incoming Call Indicator LED at the top center of the IP Deskphone flashes.

The flash cadence for each alert is different.

Note: You may also hear an audio Message Waiting Indicator (stutter or beeping dial tone) when you go off-hook.



Press the **Conference** key to initiate conference.



(Quit)

Press the **Quit** key to exit an active menu or dialog box. The status of the active call remains unaffected if you press the **Quit** key.

Using your Avaya 1230 IP Deskphone



Press the **Redial key** to access the redial list.



Press the **Message** key to access your voice mailbox when the message waiting indicator flashes.



Press the **Directory** key to access directory services.

(Directory)



Press the **Services** key and use the navigation keys to access the following items:

- · Telephone Options
 - Volume adjustment
 - Contrast adjustment
 - Language
 - Date/Time
 - Display diagnostics
 - Local dialpad tone
 - Telephone Information
 - Diagnostics
 - Call Log Options
 - Ring type
 - Call Timer
 - On-hook default path
 - Change Feature Key Label
 - Name Display Format
 - Live Dialpad
 - Caller ID display order
 - Normal mode indication
- Password Admin
 - Station Control Password

Note: The **Password Admin** menu is not available on all Avaya 1230 IP Deskphones. Consult your system administrator.

- Virtual Office Login and Virtual Office Logout (if Virtual Office is configured)



(Services) (continued)

Press the **Services** key twice to access the Local Tools menu, and then use the **Navigation** keys to access the following items:

- Preferences
- Local Diagnostics
- Network Configuration
- Lock Menu

If you attempt to access the Local Tools menu and a dialog box appears that prompts you for a password, contact your system administrator.

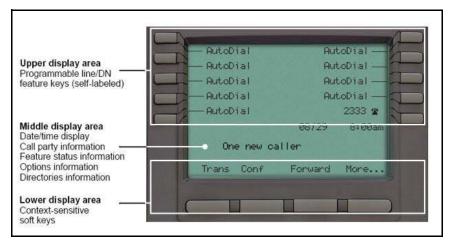
Avaya 1230 IP Deskphone display

Your Avaya 1230 IP Deskphone display is divided into three sections:

- Ten user-defined feature key labels appear on the upper section.
- Single-line information for items such as Date and Time, Calling Party Information, Feature Status Information, Options Information, and Directory Information appear in the middle section.
- The lower display area provides labels for the four context-sensitive soft keys.

Figure 3 on page 33 shows the Avaya 1230 IP Deskphone LCD screen.

Figure 3: Avaya 1230 IP Deskphone LCD screen



License notification

Notify your system administrator if your phone displays a message in a pop-up window about the licensing feature or evaluation period. License notification provides details to help diagnose why the features are disabled on the phone. You can press the Stop key or lift the handset to close the window. The window redisplays every 24 hours at 1:00 AM (default). The time and time frame can be configured when you provision the phone. For information about provisioning the IP Deskphones, see *Avaya Communication Server 1000 IP Deskphones Fundamentals* (NN43001-368).

Call features and Flexible Feature Codes

Some features are not available on all telephones. Call features and Flexible Feature Codes (FFCs) must be assigned to your telephone and supported by system software. Contact your system administrator to configure these features and codes on your telephone.

Use Table 11 on page 163 to record the FFCs that your system administrator assigns to your phone.

Audio and text message broadcast

The Avaya 1230 IP Deskphone can display special messages in the display area of your telephone, and can play special audio messages through the speaker. Your administrator broadcasts these messages, which can be used to inform you of events like company news and weather bulletins. The message can be preceded by an audio alert (a series of beeps).

The Avaya 1230 IP Deskphone supports the following special messages:

- top line: up to three lines of text. The displays of the first two lines alternate; the third line displays continuously
- audio: an audio message streams to the telephone

When an audio message starts, the Interrupt Screen displays. While the audio message plays, you can switch to your handset or headset to listen to the message. Depending on the priority of the message, the message can barge-in during an active telephone call, during an incoming call alert, or when another message is playing.

You can also cancel the audio using the following methods:

- if listening on the speaker, pressing the Handsfree key
- if listening on the handset, placing the handset on hook
- if listening on the headset, pressing the Headset key
- by pressing the Cancel soft key
- · by pressing any Line or Feature key

Installing your Avaya 1230 IP Deskphone

This section details the steps and precautionary measures to perform during IP Deskphone installation. The standard Avaya 1230 IP Deskphone package includes the following accessories:

- foot stand
- handset
- handset cord
- 2.1 m (7 ft.) CAT5 Ethernet cable
- number plate and lens



CAUTION

Ensure that the protective rubber cap on the Accessory Expansion Module (AEM) port is in place when the port is not in use. An improper connector can damage the IP Deskphone. Consult your system administrator for additional details.

Figure 4 on page 36 displays the connections on an Avaya 1230 IP Deskphone.

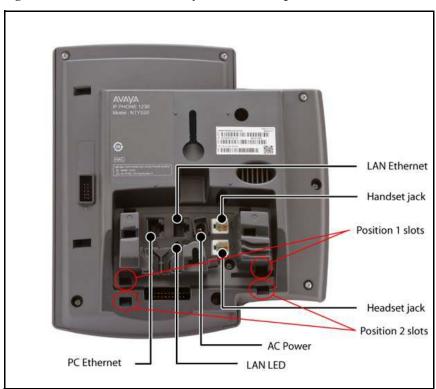


Figure 4: Connections on the Avaya 1230 IP Deskphone

Perform the following steps to connect the components of the phone and to install the phone.

- "Attaching the foot stand (optional)" on page 37
- "Connecting the handset" on page 37
- "Connecting the headset (optional)" on page 38
- "Connecting AC power (optional)" on page 38
- "Connecting the LAN Ethernet cable" on page 39
- "Connecting the PC Ethernet cable" on page 39
- "Wall-mounting the IP Deskphone (optional)" on page 40

Attaching the foot stand (optional)

Attach the foot stand in the appropriate slots, depending on the desired angle for your IP Deskphone. If you insert the foot stand into the upper slots, your IP Deskphone sits at a 25-degree angle. If you insert the foot stand into the lower slots, your IP Deskphone sits at a 55-degree angle.

If you install your IP Deskphone on a wall, do not attach the foot stand.

- Align the bottom tabs on the foot stand with the position 1 slots or the position 2 slots on the back of your IP Deskphone.
 In position 1 the IP Deskphone sits at a 25-degree angle.
 In position 2 the IP Deskphone sits at a 55-degree angle.
 - Figure 4 on page 36 shows the slots on the back of the IP Deskphone.
- 2. Press the foot stand into the slots until it snaps into place.

Connecting the handset

Use the following procedure to connect the handset to the Avaya 1230 IP Deskphone.

- Plug the end of the handset cord with the short straight section into the handset.
- Plug the other end of the handset cord with the long straight section into the handset jack marked with the + symbol on the back of the IP Deskphone.
- (Optional) Thread the cord through the channel in the foot stand (if installed) so that it exits on the side of the foot stand.
 - Figure 4 on page 36 shows the connections on the back of the Avaya 1230 IP Deskphone.

Connecting the headset (optional)

If you have a headset, you can connect the headset to the Avaya 1230 IP Deskphone. For information on how to use your headset with your IP Deskphone, refer to "Using a headset" on page 98.

- 1. Plug the headset cord into the headset jack on the back of the Avaya 1230 IP Deskphone marked with the) symbol.
 - Figure 4 on page 36 shows the connections on the back of the Avaya 1230 IP Deskphone.
- 2. Thread the cord through the channel in the side of the foot stand.
- 3. Set up the headset according to the headset instructions.

After you have the IP Deskphone working, you must configure the headset using "Configuring a headset" on page 47.

Connecting AC power (optional)

Your Avaya 1230 IP Deskphone supports AC power or Power over Ethernet (PoE) options, including IEEE 802.3 standard power.

If you are using PoE, where power is delivered over the CAT5 cable, the LAN must support PoE. If you use PoE, you do not need an AC adapter.

To use local AC power, use only the Avaya-approved Global Power Supply (NTYS17xxE6) and country-specific IEC cable. You can order the Avaya-approved AC adapter and country-specific IEC cable separately.



CAUTION

Use only the approved Avaya Global Power Supply with your Avaya 1230 IP Deskphone.

- Connect the DC barrel connector to the power jack on the back of the Avaya 1230 IP Deskphone.
- Thread the cable through the channel in the foot stand to secure the cable.

3. Plug the country-specific IEC cable into the Global Power Supply, and then plug the Global Power Supply into the nearest AC power outlet.

Figure 4 on page 36 shows the connections on the back of the Avaya 1230 IP Deskphone.

Connecting the LAN Ethernet cable

Note: Your Avaya 1230 IP Deskphone supports both AC power and PoE options, including IEEE 802.3 standard power. To use local AC power, you can order the optional AC adapter separately. To use PoE, where power is delivered over the CAT5 cable, the LAN must support PoE, and you do not need an AC adapter.

Connect your IP Deskphone to your LAN using a CAT5e Ethernet cable to enable full functionality of your IP Deskphone. If your Ethernet port is equipped with Power over Ethernet (PoE), your IP Deskphone can be powered through the LAN port. Do not extend the LAN Ethernet cable outside the building.

- 1. Plug one end of the supplied LAN Ethernet cable into the LAN Ethernet port on the back of your IP Deskphone marked with the % symbol.
- 2. Thread the cable through the channel in the foot stand.
- Connect the other end of the cable to your LAN Ethernet connection.
 The LAN LED on the back of the IP Deskphone lights when a LAN connection is established.
- Connect the other end of the cable to your LAN Ethernet connection.
 The LAN LED on the back of the IP Deskphone lights when a LAN connection is established.

Figure 4 on page 36 shows the connections on the back of the IP Deskphone.

Connecting the PC Ethernet cable

Connect the CAT5e PC Ethernet cable between your IP Deskphone and your computer to enable your computer to access the LAN.

- Plug one end of the PC Ethernet cable (not supplied) into the PC Ethernet port on the back of your IP Deskphone marked with the (symbol.
- 2. Thread the cable through the channel in the foot stand.
- 3. Connect the other end of the cable to the LAN port on your computer.

Wall-mounting the IP Deskphone (optional)

You can install your Avaya 1230 IP Deskphone on a wall. Wall-mount the IP Deskphone using the two keyholes on the back of the IP Deskphone. You do not need the foot stand for wall-mounted applications.

- 1. Remove the foot stand.
- 2. Ensure all cables are properly routed and the Avaya 1230 IP Deskphone is functioning.
- 3. Make small marks on the wall where you want to align each keyhole slot.
- 4. Insert the screws (not provided) so that they protrude slightly from the wall.
- 5. Align the keyholes on the back of the Avaya 1230 IP Deskphone with the screws in the wall.
- 6. Slide the IP Deskphone onto the screws to secure the Avaya 1230 IP Deskphone in position.

Basic features

This section explains how to customize the features on your Avaya 1230 IP Deskphone to meet your requirements.

Note: Call features and Flexible Feature Codes (FFC) must be assigned to your Avaya 1230 IP Deskphone and supported by system software. Contact your system administrator to configure these features and codes on your Avaya 1230 IP Deskphone.

Your Avaya 1230 IP Deskphone has both server-based telephone features and local (telephone-based) tools. Server-based telephone features are accessed through the **Telephone Options** menu item on the Services menu. Press the **Services** key once to access the Services menu, which has the following menu items:

Telephone Options

You or your system administrator can use the Telephone Options menu to configure telephone preferences. For more information, see "Telephone Options" on page 42.

Password Admin

You or your system administrator can use the Password Admin menu to assign or modify the Station Control Password. For more information, see "Managing your Station Control Password" on page 68

Virtual Office Login

The Virtual Office Login menu is available on the Avaya 1230 IP Deskphone. You must configure the Class of Service for Virtual Office.

Note: The Password Admin, Virtual Office Login, and Test Local Mode menus are not available on every Avaya 1230 IP Deskphone. Consult your system administrator.

Telephone Options

The Telephone Options menu item provides you with access to the following features on your Avaya 1230 IP Deskphone:

- "Adjusting volume" on page 44
- "Adjusting the display screen contrast" on page 45
- "Selecting a language" on page 46
- "Selecting date and time format" on page 48
- "Accessing display diagnostics" on page 49
- "Selecting a local dialpad tone" on page 49
- "Viewing IP Deskphone information" on page 50
- "Performing diagnostics" on page 51
- "Configuring Call Log Options" on page 52
- "Selecting a ring type" on page 59
- "Enabling or disabling Call Timer" on page 60
- "Enabling OnHook Default Path" on page 61
- "Changing feature key labels" on page 61
- "Configuring the name display format" on page 63
- · "Configuring Live Dialpad" on page 64
- "Configuring Caller ID display order" on page 65
- "Configuring Normal mode indication" on page 66

Figure 5: Telephone Options menu.

Volume adjustment	Call Log Options
Contrast adjustment	Ring type
Language	Call Timer
Date/Time	On hook default path
Display diagnostics	Change Feature Key label
Local Dialpad Tone	Name Display Format
Set Info	Live Dial Pad
Diagnostics	\neg

Note: If a menu includes a submenu, an ellipsis (...) appears after the command.

To use the **Telephone Options** menu, perform the following steps:



(Services)

1. Press the **Services** key.



 Press the Up or Down keys to scroll up or down, and then select Telephone Options.



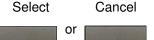
3. Press the **Enter** key.



 Press the Up or Down keys to scroll, and select an option (for example, Language).



5. Press the **Enter** key. The display provides information required to adjust your selection.



 Press the Select soft key to save changes and return to the Telephone Options menu.

or

Press the **Cancel** soft key to cancel the modifications.

Adjusting volume

To adjust the volume:



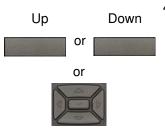
 Press the Services key, select Telephone Options, and select Volume adjustment



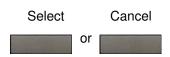
- Press the Up or Down keys to scroll up or down, and then select one of the following:
 - Ringer
 - Handset listen
 - Handsfree listen
 - Headset listen
 - Buzzer



3. Press the **Enter** key.



- 4. To increase or decrease the volume, perform one of the following actions:
 - Press the Up or Down soft keys.
 - Press the Up or Down navigation keys.



 Press the Select soft key to save the volume level and return to the Telephone Options menu.

or

Press the **Cancel** soft key to cancel the modifications.

Adjusting the display screen contrast

You can adjust the contrast using the **Local Tools** menu; however, Avaya recommends that you use the **Telephone Options** menu.

Note: If an Expansion Module is attached to your Avaya 1230 IP Deskphone, changes that you make to the LCD screen contrast of the Avaya 1230 IP Deskphone also apply to the display screen contrast configuration of the Expansion Module.

Use the following procedure to adjust the display screen contrast.



 Press the Services key, select Telephone Options, and select Contrast adjustment. or

2. To increase or decrease the display contrast level, press the **Left** or **Right** keys.



 Press the Select soft key to save the changes and return to the Telephone Options menu.

or

Press the **Cancel** soft key to cancel the modifications.

Selecting a language

Information that appears on the display is available in multiple languages. This language setting controls the language only for Avaya 1230 IP Deskphone features.

If the Language setting is password-protected, you must enter a password (SCPW) to change the language. If you enter an incorrect password, an error message is displayed. If you enter an incorrect password more than three times, the password functionality is locked. Contact your system administrator to unlock the password.

Use the following procedure to configure the language.



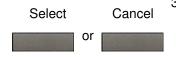
(Services)

 Press the Services key, select Telephone Options, and select Language.



 Press the Up or Down keys to scroll up or down, and then select the desired language (for example, German [Deutsche]).

Note: You cannot install some languages on your IP Deskphone. Contact your system administrator for additional information about available languages.



 Press the Select soft key to save the desired language and return to the Telephone Options menu.

or

Press the **Cancel** soft key to cancel the modifications.

Configuring a headset

Each headset has its own tuning parameters, and your deskphone must be configured to use the proper parameters. If you do not configure the deskphone for the proper tuning parameters, you may not be taking full advantage of the audio qualities of the headset.

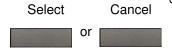
To configure the headset,



 Press the Services key, select Telephone Options, and select Wired Headset.



Press the Up or Down keys to cycle through the three types of headsets.



 Press the Select soft key to save the selected headset type and return to the Telephone Options menu.

or

Press the **Cancel** soft key to cancel the modifications.

Selecting date and time format

Several date and time formats are available. Formats are based on the 12-hour and 24-hour clocks.

Use the following procedure to select a date and time format.

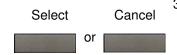


(Services)





 Press the Up or Down keys to scroll up or down, and then select the desired date/time format. Sample date/time formats appear on the upper-right side of the display area.



 Press the Select soft key to save the format and return to the Telephone Options menu.

or

Press the **Cancel** soft key to cancel the modifications.

Accessing display diagnostics

The Display diagnostics command tests the Avaya 1230 IP Deskphone display screen and indicator lights.

Use the following procedure to use Display diagnostics.



(Services)

 Press the Services key, select Telephone Options, and select Display Diagnostics.



 Press the Up or Down keys to scroll through the list to view display capabilities.





3. Press the **Cancel** soft key to return to the **Telephone Options** menu.

Selecting a local dialpad tone

When you press a key, the response can be a Dual-Tone Multi-Frequency (DTMF) sound, a single tone, or no sound. This is known as the Local Dialpad Tone.

Use the following procedure to choose a local dialpad tone.



(Services)

 Press the Services key, select Telephone Options, and select Local DialPad Tone.



- 2. Press the **Up** or **Down** keys to scroll up or down, and then select one of the following dialpad tones:
 - None to disable all tones.
 - Short Click to enable a single tone for all keys.
 - DTMF to turn on a different DTMF tone for each kev.



Press the Select soft key to save the 3. tone selection and return to the Telephone Options menu.

or

Press the Cancel soft key to cancel the modifications.

Viewing IP Deskphone information

The Local Set Info option displays the following IP Deskphone-specific information.

- General Info
- Set IP Info
- Ethernet Info
- Server Info
- Encryption Info
- Location Info

Use the following procedure to view IP Deskphone information.



(Services)

Press the **Services** key, select Telephone Options, and select Local Set Info



Press the Up or Down keys to scroll through the list and view IP Deskphone information.

Cancel



3. Press the **Cancel** soft key to cancel the modifications.

Performing diagnostics

The Diagnostics command displays the following IP Deskphone-specific information.

- Diag Tools (Ping, do Route Traces)
- EtherStats (Speed, Auto Neg, CRC Errors, Collision)
- IP Stats (Packet Info)
- RUDP Stats (Message receive or transmit)
- QoS Stats

Use the following procedure to view diagnostic information.



(Services)





2. Press the **Up** or **Down** keys to scroll through the list of diagnostic information.





3. Press the **Cancel** soft key to return to the **Telephone Options** menu.

Configuring Call Log Options

Use the call log option to configure the following preferences:

- "Configuring the Callers List log" on page 52
- "Configuring New Call Indication" on page 53
- "Configuring Preferred Name Match" on page 54
- "Configuring the area codes" on page 55

Configuring the Callers List log

You can configure the Callers List to log all incoming calls including calls while your IP Deskphone is busy, or only unanswered calls. The default setting is Log all calls.

To log only unanswered calls:

To access Call Log options, press the **Services** soft key, select **Telephone Options**, and select **Call Log Options** from the menu.



 Press the Up or Down keys to scroll up or down, and then select the Incoming Calls option.



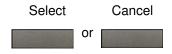
Press the Up or Down keys to scroll up or down, and then select the Log Mode option.



3. Press the **Enter** key.



 Press the Up or Down keys to scroll up or down, and then select Log Unanswered Calls.



5. Press the **Select** soft key to save the configuration.

or

Press the **Cancel** soft key to keep existing configurations.

To log all incoming calls including calls while IP Deskphone is busy:

To log all incoming calls including calls while your IP Deskphone is busy, press the Services key and select Call Log Options from the Telephone Options menu.

- Press the Up/Down navigation keys to scroll and highlight the **Incoming Calls** option.
- Press the Select soft key.
- Press the Up/Down navigation keys to scroll and highlight Log calls 3. if busy.
- 4. Choose one of the following:
- Press the Select soft key to save the configuration.
- Press the Cancel soft key to keep existing configurations.

Configuring New Call Indication

You can configure your Avaya 1230 IP Deskphone to display a message that indicates a new call. By default, this option is On.

Use the following procedure to configure New Call Indication.



Press the **Services** key, select Telephone Options, and select Call Log Options.







 Press the Up or Down keys to scroll up or down, and then select the New Call Indication option.



4. Press the Enter key.



Press the Up or Down keys to scroll up or down, and then select one of the following:

New call indication: Off

— New call indication: On

Select Cancel

Press the Select soft key to save the configuration.

or

Press the **Cancel** soft key to keep existing configurations.

Configuring Preferred Name Match

You can configure your Avaya 1230 IP Deskphone to display the name of the caller as defined in your Personal Directory. By default, the option is Off. Use the following procedure to configure Preferred Name Match.



(Services)

 Press the Services key, select Telephone Options, and select Call Log Options.



 Press the Up or Down keys to scroll up or down, and then select Preferred Name Match.



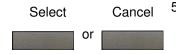
Press the Enter key.



 Press the Up or Down keys to scroll up or down, and then select one of the following:

Preferred name match: On

— Preferred name match: Off



Press the Select soft key to save the configuration.

or

Press the **Cancel** soft key to keep existing configurations.

Configuring the area codes

Use the **Area Code Setup** menu to save up to three area codes. When a call arrives with an area code that matches one of the saved area codes, the calling number is reordered to display the telephone number followed by the area code (as opposed to the area code followed by the telephone number).

This reordering applies when you scroll through your Callers List.

Use the following procedure to configure default area codes (maximum of three).



(Services)

 Press the Services key, select Telephone Options, and select Call Log Options.



Press the Up or Down keys to scroll up or down, and then select Area Code Setup.



3. Press the Enter key.



 Press the Up or Down keys to scroll up or down, and then select one of the following:

- 1st Code
- 2nd Code
- 3rd Code



5. Press the **Enter** key.



6. Use the dialpad to enter the number at the prompt.

Select Cancel
or

Press the Select soft key to save the configuration.

or

Press the **Cancel** soft key to keep existing configurations.

Use the following procedure to edit area code display.



 Press the Services key, select Telephone Options, and select Call Log Options.



Press the Up or Down keys to scroll up or down, and then select Area Code Setup.



3. Press the **Enter** key.



- Press the Up or Down keys to scroll up or down, and then select one of the following:
 - 1st Code
 - 2nd Code
 - 3rd Code



5. Press the **Enter** key.



6. Use the dialpad to edit the number.



7. Press the **Select** soft key to save the configuration.

or

Press the **Cancel** soft key to keep existing configurations.

Selecting a ring type

Use the Ring type option to configure the IP Deskphone ring tone.

Use the following procedure to select a ring type.



(Services)





Press the **Up** or **Down** keys to scroll up 2. or down, and then select one of the ring types.





3. Press the **Play** soft key to sample the ring tone.

Select



Stop



Cancel



Press the **Select** soft key to save the ring type and return to the Telephone **Options** menu.

or

Press the **Stop** soft key and use the Up or Down keys to select a different ring type.

or

Press the **Cancel** soft key to cancel the modifications.

Enabling or disabling Call Timer

The call timer measures the call duration.

Use the following procedure to enable or disable Call Timer.



 Press the Services key, select Telephone Options, and select Call timer.



2. Press the **Up or Down** keys to enable or disable the Call Timer.



 Press the Select soft key to save the configuration and return to the Telephone Options menu.

or

Press the **Cancel** soft key to cancel the modifications.

Enabling OnHook Default Path

Use the OnHook Default Path option to enable Headset or Handsfree for your Avaya 1230 IP Deskphone.

Use the following procedure to enable OnHook Default Path.



(Services)

 Press the Services key, select Telephone Options, and select On Hook default path.



- Press the Up or Down keys to select one of the following:
 - Handsfree Enabled
 - Headset Enabled
- Select Cancel or

 Press the Select soft key to save the default path and return to the Telephone Options menu.

or

Press the **Cancel** soft key to cancel the modifications.

Changing feature key labels

Use the Change Feature Key label option to rename the label that corresponds to the feature key. You can define labels with a maximum of nine characters. You can also restore the default labels (collectively or individually).

If the feature key label setting is password-protected, you must enter a password (SCPW) to change the feature key label. If you enter an incorrect password, an error message is displayed. If you enter an

incorrect password more than three times, the password functionality is locked. Contact your system administrator to unlock the password.

Note: If a feature key is configured as an autodial key, the label does not change if the autodial key configuration changes.

Use the following procedure to rename the labels.



 Press the Services key, select Telephone Options, and select Change Feature Key label.



2. Press the **Enter** key.



3. Press the feature key to change the label.

If you press a prime DN key, an error message appears.



 Enter the new information for the feature key label. To enter special characters, press the **Up** key. For information about entering text, see "Using the telephone dialpad" on page 89.



 Press the Select soft key to save the changes and return to the Telephone Options menu.

or

Press the **Cancel** soft key to cancel the modifications.

Use the following procedure to restore the default labels.



(Services)

 Press the Services key, select Telephone Options, and select Change Feature Key label.



2. Press the Enter key.



- Use the Up or Down keys to scroll up or down, and then select one of the following:
 - a. To restore all key labels, press the **Yes** soft key.
 - b. To restore one key label:
 - Press the Select soft key.
 - Press the feature key.
 - Press the Yes soft key to change the selected feature key label to the default value.

Note: If you change the labels to default values, you cannot undo the change. You must redefine the custom labels.

Configuring the name display format

You can configure your Avaya 1230 IP Deskphone to display the name of the calling party in one of the following formats:

- · first name, last name
- last name, first name

Use the following procedure to configure name display format.



(Services)





- Press the Up or Down keys to scroll up or down, and then select one of the following:
 - first name, last name
 - last name, first name



Press the Select soft key to save the configuration.

or

Press the **Cancel** soft key to cancel the modifications.

Configuring Live Dialpad

The Live Dialpad option activates the Primary DN key when you make a call by dialing a directory number on the dialpad without picking up the handset or pressing the **Handsfree** key.

Use the following procedure to configure Live Dialpad.



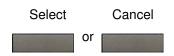
 Press the Services key, select Telephone Options, and select Live Dial Pad.



- Press the Up or Down keys to scroll up or down, and then select one of the following:
 - On
 - Off (default)
 - Press the **Select** soft key to save the configuration.

or

Press the **Cancel** to cancel the modifications.



Configuring Caller ID display order

Caller ID display order appears in 2 formats:

- Number, name (default)
- Name, Number

Use the following procedure to configure Caller ID display order.

- Press the Services key, select Telephone Options and select Caller ID display order.
- 2. Press the **Up/Down** navigation keys to scroll up or down, and then select one of the following:
 - Number, name (default)
 - Name, number
- 3. Press the **Select** soft key to save the configuration, else press the **Cancel** key to cancel the modifications.

Configuring Normal mode indication

The **Normal** mode display indication can be On or Off when the IP Deskphone is in normal mode.

Use the following procedure to configure Normal mode indication.

- Press the Services key, select Telephone Options, and select Normal mode indication.
- 2. Press the **Up/Down** navigation keys to scroll up or down, and then select one of the following:
 - On
 - Off
- 3. Press the **Select** soft key to save the configuration, else press the **Cancel** key to cancel the modifications.

Advanced features

You can customize features on your Avaya 1230 IP Deskphone to meet your requirements. This section describes how to customize the advanced features.



CAUTION

Many of the options discussed in this section are for the system administrator only. Do not make changes unless you are told to do so by an administrator.

You and the system administrator can customize the following advanced features:

Password Admin

Use the Password Admin menu to assign or modify the Station Control Password. See "Managing your Station Control Password" on page 68.

Electronic Lock

Assign a lock on your IP Deskphone to secure your IP Deskphone and avoid misuse. See "Configuring an Electronic Lock on your IP Deskphone" on page 70.

Personal Directory

Customize the Personal Directory to store your choice of names. See "Customizing the Personal Directory" on page 72.

Local Tools menu

Use the Local Tools menu to configure personal preferences. See "Configuring the Local Tools menu" on page 77.

Virtual Office Login

The Virtual Office Login menu can be configured on Avaya 1230 IP Deskphone. Class of Service must be configured for Virtual Office. See "Using Virtual Office" on page 83.

Note: The **Password Admin** and **Virtual Office Login** menus are not available on every Avaya 1230 IP Deskphone. Consult your system administrator.

Managing your Station Control Password

You can assign a Station Control Password (SCPW) to:

- lock your IP Deskphone and prevent the misuse of your IP Deskphone
- use password-protected features such as customizing the Personal Directory, using the Redial List, and using the Callers List

Note: Your system administrator defines your initial SCPW. Contact your system administrator for detailed information.

Assigning an SCPW

Use the following procedure to assign an SCPW.



(Services)

Press the Services key.



Press the Up or Down keys to scroll up or down, and then select Password Admin.



3. Press the **Enter** key.



 Press the Up or Down keys to scroll up or down, and then select New Password.



5. Press the **Enter** key.



 Enter your new password using the dialpad. To enter special characters, press the **Up** key. For information about entering text, see "Using the telephone dialpad" on page 89.

Select



Press the Select soft key to accept the new password.

Note: If you are locked out of your Avaya 1230 IP Deskphone, or if you forget your SCPW, contact your system administrator.

Turning Password Protection on or off

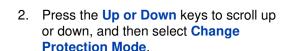
Use the following procedure to turn Password Protection on or off.



(Directory)

1. Press the **Directory** key.

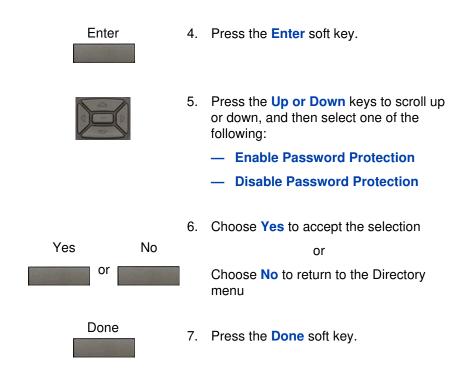






Enter your new password using the dialpad (if Password Protection is enabled).

To enter special characters, press the **Up** key. For information about entering text, see "Using the telephone dialpad" on page 89.



Note: The default configuration for Password Protection is off.

Configuring an Electronic Lock on your IP Deskphone

Use the Electronic Lock feature to prevent others from making calls from your Avaya 1230 IP Deskphone. Your SCPW controls the Electronic Lock feature. To change your Station Control Password, see "Managing your Station Control Password" on page 68.

Locking your Avaya 1230 IP Deskphone

Use the following procedure to lock your Avaya 1230 IP Deskphone.



1. Lift the handset.



2. Dial the Electronic Lock Activate FFC.



3. Dial your Station Control Password.



or



4. If you dial locally, press the **Goodbye** key.

or

If you dial the FCC remotely, dial your DN.

Unlocking your Avaya 1230 IP Deskphone

Use the following procedure to unlock your Avaya 1230 IP Deskphone.



1. Lift the handset.



2. Dial the **Electronic Lock Deactivate** FFC.



3. Dial your Station Control Password.



or



If you dial locally, press the Goodbye key.

or

If you dial the FCC remotely, dial your DN.

Customizing the Personal Directory

Use the Personal Directory feature to create and store up to 100 contacts of your choice. A Personal Directory entry can contain

- last name (up to 24 characters)
- first name (up to 24 characters)
- telephone numbers (up to 31 characters)

To use the Personal Directory, press the **Directory** key and select **Personal Directory**.

Adding an entry

Use the following procedure to add an entry to the Personal Directory.



1. Press the **Directory** key and select **Personal Directory**.

Add



2. Press the Add soft key.

If the message "Directory is full" appears, delete one or more entries to accommodate a new entry.



Use the dialpad to enter the name.
 To enter special characters, press the
 Up navigation key. For information about entering text, see "Using the telephone dialpad" on page 89.

Next





5. Use the dialpad to enter the telephone number.



Press the **Done** soft key to save the new entry.

or

Press the **Cancel** soft key to return to the Add screen without saving the new entry.

Editing an entry

Use the following procedure to edit an entry in the Personal Directory.



 Press the **Directory** key and select **Personal Directory**.



Press the Up or Down keys to scroll up or down, and then select the desired entry.





3. Press the **Edit** soft key and make the necessary changes.

Done Cancel or

Press the **Done** soft key to save the changes.

or

Press the **Cancel** soft key to return to the Personal Directory without saving your changes.

Deleting an entry

Use the following procedure to delete an entry in the Personal Directory.







Press the Up or Down keys to scroll up or down, and then select the desired entry.



3. Press the **Del** soft key.

Confirm Cancel

4. Press the **Yes** soft key to delete the entry.

or

Press the **No** soft key to return to the Personal Directory without deleting the entry.

Copying an entry

Use the following procedure to copy an entry in the Personal Directory.



 Press the **Directory** key and select **Personal Directory**.



Press the Up or Down keys to scroll up or down, and then select the desired entry.

More

3. Press the **More** soft key.



Copy



4. Press the **Copy** soft key to configure the new entry.



Use the dialpad to enter the name.
 To enter special characters, press the
 Up navigation key. For information about entering text, see "Using the telephone dialpad" on page 89.

Done Cancel or

6. Press the **Done** soft key to save the changes.

or

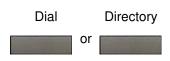
Press the **Cancel** soft key to return to the Personal Directory without saving your changes.

Searching for an entry

Use the following procedure to search for an entry in the Personal Directory.



 Press the Up or Down keys to scroll up or down, and then select the desired entry.



Press the Dial soft key to call the number.

or

Press the **Directory** soft key to exit without calling.

Configuring the Local Tools menu

Your Avaya 1230 IP Deskphone has both local and server-based telephone tools and features. This section discusses the various tools and features available locally on your Avaya 1230 IP Deskphone.



CAUTION

Many of the options discussed in this section are for administrator use only. Do not make changes unless you are instructed by an administrator.

Note: Your system administrator can establish a password for the **Local Tools** menu. If the password is enabled and you attempt to access the **Local Tools** menu, a password prompt dialog box appears. Use the dial pad to type the password and press the **Enter** key. The **Local Tools** menu appears. If the menu does not appear, contact your system administrator.

You can access the Local tools and features through the **Local Tools** menu. Press the **Services** key twice to access this menu. Your system administrator can establish a password for the **Local Tools** menu. When the password is enabled, a password prompt appears when you attempt to access this menu. If this happens, contact your system administrator.

The Local Tools menu has the following menu options:

- "1. Preferences" on page 79
- "2. Local Diagnostics" on page 82
- "3. Network Configuration" on page 82
- "4. Lock Menu" on page 83

If a menu command has a number in front of it, you can select the command by pressing the associated key on the dialpad. For example, in the Local Tools menu, access **Local Diagnostics** by pressing **2** on the dialpad.

The function of some keys on the Avaya 1230 IP Deskphone differs based on the situation. Table 5 on page 78 describes the function of each key for navigating and using menus.

Table 5: Navigation key functions in menus

Key	Function
Down arrow key	Select the next menu item.
Up arrow key	Select the previous menu item.
Right arrow key	Select the current menu item.
Left arrow key	Close the menu.
Enter key	Select the current menu item.
Enter digits on the dialpad	Select the associated menu item.
Stop soft key	Close the menu.
Cancel soft key	Close the menu.
Select soft key	Select the current menu item.

Table 6 on page 78 describes the key functions in dialog boxes.

Table 6: Navigation key functions in dialog boxes

Key	Function
Down arrow key	Scroll down in the window.
Up arrow key	Scroll up in the window.
Right arrow key	Go to the next Edit item.
Left arrow key	Go to the previous Edit item.
Enter key	Turn Edit mode on or off. Select or clear a check box.

When you work in Edit mode, the first field of the item is selected and a blinking cursor appears to the right of the current edit position. Table 7 on page 79 describes the navigation key functions in Edit mode.

Table 7: Navigation key functions in Edit mode

Key	Function
Down arrow key	Open the list. Select the next menu item.
Up arrow key	Select the previous menu item.
Right arrow key	Select the current list item. Move the cursor to the right.
Left arrow key	Delete the prior character in the edit field. Moves cursor to the left.
Enter key	Select the current menu item. Save modifications to the menu item. Exit edit mode box.
Enter characters or digits on the dialpad	Insert characters or digits at the current cursor position.
	Note: Press the star (*) key to insert a period (.).

Note: Special characters are accessed by pressing 1. By repeatedly pressing 1, the characters circle in the following sequence: 1, _, -, ., !, @, \$, %, &, +, :, /, \.

1. Preferences

Use the 1.Preferences menu to alter the following local preferences:

- 1. Contrast
- 2. Language
- 3. Wired Headset

1. Contrast

Use the Contrast tool to alter the physical settings of the display.

Note: Changes made to the display **Contrast** using this method are lost if you reset the IP Deskphone. To avoid this situation, Avaya recommends that you use the Contrast Adjustment control in the **Telephone Options** menu for contrast adjustment.

Use the following procedure to adjust the Contrast setting.



(Services)

 Press the Services key twice to open the Local Tools menu, press the 1 key on the dialpad to select Preferences, and press the 1 key to select Contrast.



2. Press the right or left arrow keys to increase or decrease the contrast value.



3. Press the **Enter** key to save the changes.

2. Language

Information that appears on the IP Deskphone display is available in multiple languages.

Use the following procedure to select a language



(Services)

 Press the Services key twice to open the Local Tools menu, press the 1 key on the dialpad to select 1. Preferences, and press the 2 key to select 2. Language.



 Press the up or down keys to scroll up or down, and then select the desired language (for example, German [Deutsche]).



3. Press the **Enter** key to save the changes.





 Press the Cancel key to exit the Preferences menu without saving the changes.

Note: This language setting only controls the language used in the local menus on your IP Deskphone. To select the language for features on your IP Deskphone, press the **Services** key, select **Telephone Options**, and select **Language...**

3. Wired Headset

Each headset has its own tuning parameters, and your deskphone must be configured to use the proper parameters.

Use the following procedure to configure the headset



(Services)

 Press the Services key twice to open the Local Tools menu, press the 1 key on the dialpad to select 1. Preferences, and press the 3 key to select
 Wired Headset.



2. Press the up or down keys to cycle through the three types of headsets



3. Press the **Enter** key to save the changes.

Cancel

 Press the Cancel key to exit the Preferences menu without saving the changes.

2. Local Diagnostics

The 2. Local Diagnostics submenu offers the following choices:

- IP Set and DHCP Information—View reports about Avaya 1230 IP Deskphone and DHCP operation.
- Network Diagnostic Tools—Diagnose network problems using ping and trace route tools.
- Ethernet Statistics tool—View reports about Ethernet operation.
- IP Network Statistics—View reports about network operation.
- DHCP Information—View information about DHCP.
- License Information—View information about licenses.



CAUTION

Local Diagnostics, Network Configuration, and the Lock Menu items are for system administrator use only.

Press the **Return** soft key at any time to return to the previous Local Diagnostics submenu if you customize the IP Deskphone using the Local Diagnostics submenu. You can gather information and run tests without exiting and re-entering the Local Tools menu. For example, you can check the Ethernet Statistics, and then press **Return** to enter the Network Diagnostics Tools to ping an IP address.

3. Network Configuration

The Network Configuration tool displays information that was configured when you installed the Avaya 1230 IP Deskphone. This tool is for administrator use only.

4. Lock Menu

Your system administrator can use the Lock Menu tool to protect the Local Tools menu items from accidental or unwanted changes. This tool is for administrator use only.

Using Virtual Office

Use the Virtual Office feature to transfer calls and your office IP Deskphone settings to a remote IP Deskphone. You can use the remote IP Deskphone as if it were your office IP Deskphone. You can use another IP Deskphone (the remote phone) to log on to your Office IP Deskphone. After you log on, you can access the DNs and autodial numbers, and you have the same key layout, feature keys, and voice mail features that are configured on your office IP Deskphone.

To use Virtual Office, you need your DN and a preconfigured SCPW. You must activate Virtual Office on your office IP Deskphone before you can connect to it from a remote IP Deskphone. See "Logging on to Virtual Office" on page 84.

Consult your system administrator to confirm the availability of the Virtual Office feature on your IP Deskphone.

The IP Deskphone used as a remote phone to connect to your Avaya 1230 IP Deskphone does not have to be another Avaya 1230 IP Deskphone. Table 8 on page 83 shows the IP Deskphones on which you can use Virtual Office to connect to your Avaya 1230 IP Deskphone.

Table 8: Virtual Office connection availability (Part 1 of 2)

IP Deskphone	Can I log on to Avaya 1230 IP Deskphone?
Avaya 1110 IP Deskphone	Yes, with extra key restrictions
Avaya 1120E IP Deskphone	Yes, with extra key restrictions
Avaya 1140E IP Deskphone	Yes, with extra key restrictions

Table 8: Virtual Office connection availability (Part 2 of 2)

IP Deskphone	Can I log on to Avaya 1230 IP Deskphone?
Avaya 1150E IP Deskphone	No
Avaya 1165E IP Deskphone	Yes, with extra key restrictions
IP Phone 2001	Yes, with extra key restrictions
IP Phone 2002	Yes, with extra key restrictions
IP Phone 2004	Yes, with extra key restrictions
Avaya 2007 IP Deskphone	Yes, with extra key restrictions
Avaya 2033 IP Conference Phone	Yes, with extra key restrictions
Avaya 2050 IP Softphone	Yes, with extra key restrictions
Avaya 1210 IP Deskphone	Yes, with extra key restrictions
Avaya 1220 IP Deskphone	Yes, with extra key restrictions
IP Phone 2210	Yes, with extra key restrictions
IP Phone 2211	Yes, with extra key restrictions
IP Phone 2212	Yes, with extra key restrictions

Logging on to Virtual Office

If the IP Deskphone is configured for Virtual Office, the Virtual soft key is displayed, as shown in Figure 6 on page 85.

Figure 6: Virtual soft key



Virtual



- 1. Press the Virtual soft key.
- 2. At the prompt, enter your user ID.



3. Press the Enter key.

At the prompt, enter the home Station Control Password (SCPW).

If the user ID is not found locally, the message Locating Remote Server appears.

Note: After three failed logon attempts, you must wait for an hour before you try to log on again. Alternatively, contact your system administrator to reset your password. For more information, see "Assigning an SCPW" on page 68.

A successful logon transfers all the features, time, date, and tones of your office Avaya 1230 IP Deskphone to your remote IP Deskphone. Your Virtual Office session expires after a fixed period of time which your system administrator determines.

Using Virtual Office on your remote IP Deskphone

The display characteristics, including size of the display area, differ with IP Deskphone models. Your Virtual Office display depends on the remote IP Deskphone that you use to log on to your Virtual Office. All features are the same as they appear on your office Avaya 1230 IP Deskphone.

An Avaya 1120E IP Deskphone that is logged on remotely to an Avaya 1230 IP Deskphone provides less information than the Avaya 1230 IP Deskphone because it has fewer display lines.

When an Avaya 2050 IP Softphone logs on remotely to an Avaya 1230 IP Deskphone, the information display is arranged differently, but all the information is visible at one time.

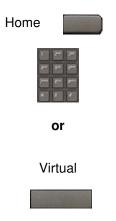
Regardless of the IP Deskphone model that you use as a remote IP Deskphone, a user information line appears that lists the number of your office IP Deskphone.

Using Virtual Office on your office IP Deskphone

When activated for Virtual Office by a remote IP Deskphone, your office IP Deskphone logs off and is no longer operational. When you return to the office, disconnect the remote logon to regain control of your office phone. If you do not explicitly disconnect the remote logon, your Virtual Office session expires after a fixed period of time, which your system administrator determines.

Disconnecting your office IP Deskphone from a remote IP Deskphone

Use the following procedure to disconnect your office IP Deskphone from a remote IP Deskphone.



To disconnect your office IP Deskphone from the remote IP Deskphone

- a. Press the **Home** key.
- b. Enter your User ID and password (this logs on the office IP Deskphone to your office network).

or

Press the **Virtual** soft key to log on to another IP Deskphone, and your IP Deskphone becomes a remote IP Deskphone.

Logging off Virtual Office

To log out of Virtual Office, press the Virtual soft key.

Automatic log out from Virtual Office

Your remote Virtual Office IP Deskphone may be configured to automatically log out of Virtual Office after a predetermined period of inactivity. When automatic logout is about to occur, the following message is displayed on the IP Deskphone: "Logout phone now?"

Press **Yes** to allow the IP Deskphone to log out of Virtual Office or press **No** to remain logged in to Virtual Office and reset the IDLE timer. If no key is pressed, the IP Deskphone logs out of Virtual Office.

Emergency calls on your Remote IP Deskphone

If you make an emergency call while logged in to Virtual Office on a Remote IP Deskphone, the call is placed to the local emergency service, not to your home office emergency service.

Note: Some IP Deskphones are configured as Virtual Office-only telephones and have no assigned DN. However, these IP Deskphones can still be used to make emergency calls. "Emergency Calls only " is displayed on the IP Deskphone display when not logged in to Virtual Office. When the phone goes off-hook, dial tone is available for emergency calls only. All other calls are restricted.

Operating your Avaya 1230 IP Deskphone

This section describes how to operate your Avaya 1230 IP Deskphone. It describes operations such as entering text, making a call, using the Corporate directory, and using the Redial List.

Entering and editing text

You can enter and edit text on your Avaya 1230 IP Deskphone using the following methods:

- "Using the telephone dialpad" on page 89
- "Using the soft keys" on page 89

Using the telephone dialpad

You can use the dialpad to enter text when you use features such as Personal Directory, Redial List, and Callers List.

For example, to enter the letter A, press the 2 key once. To enter the letter C, press the 2 key three times.

Note: No letters are associated with the 1 or the 0 keys.

Using the soft keys

You can use soft keys to edit text when you use features such as Personal Directory, Redial List and Callers List.

Use the following procedure to edit an entry in your Personal Directory.

- 1. Press the **Directory** key.
- 2. Select the desired entry from Personal Directory.
- 3. Press the **Edit** soft key.
- 4. Press the Left or Right keys to move through the text.
- 5. Select the appropriate editing soft key for the operation you want to perform.

- 6. If the key you want is not visible, press the **More** soft key to access the next layer of soft keys.
- 7. Press the **Up** key to access the symbols.
- 8. Press the Left or Right keys to move to a specific symbol.
- 9. Press the **Choose** soft key to select a symbol.
- 10. Press the **Next** soft key to submit your changes.

Table 9 on page 90 describes the soft key editing functions on the Avaya 1230 IP Deskphone.

Table 9: Editing soft key description

Soft key	Description
Cancel	Cancel action.
Choose	Select a symbol.
Clear	Clear the input field.
Case	Switch the next character to either uppercase or lowercase.
Delete	Backspace one character.
Done/Select/Enter	Application-dependent.
More	Access additional soft keys.

Making a call

This section describes the various ways you can make a call from your Avaya 1230 IP Deskphone

- "Using the Callers List" on page 91
- "Using the Redial List" on page 93
- "Using Off-hook dialing" on page 95
- "Using On-hook dialing" on page 96
- "Using Handsfree dialing" on page 97
- "Using the Corporate Directory" on page 99

- "Using the Personal Directory" on page 100
- "Using Predial" on page 101
- "Using AutoDial" on page 102
- "Using Ring Again" on page 104
- "Using Last Number Redial" on page 105
- "Using Speed Call" on page 106
- "Using System Speed Call" on page 107
- "Using HotLine" on page 107
- "Using Intercom Calling" on page 108

Using the Callers List

The Callers List logs all incoming calls. The Callers List can store up to 100 entries. When the list is full, the oldest entry is overwritten. Use the Callers List to review missed calls and make a call, if desired. The Callers List contains the following components:

- the caller's last and first name (if available)
- the DN of the caller
- the time and date of the call
- the number of times the caller called

Note: If the caller name is not defined, then only the telephone number is displayed.

Callers List entries are sorted by call arrival time.

The format of names in the Callers List depends on the configuration of Preferred Name Match. The Calling Party Name Display (CPND) appears according to the configuration settings on your IP Deskphone if Preferred Name Match is active on your IP Deskphone. If Preferred Name Match is off, the CPND appears as determined by the system configuration.

To access the Callers List, press the **Directory** key, and select **Callers List**. If password control is enabled, you must enter your SCPW at the prompt.

Dialing an entry

Use the following procedure to dial an entry in the Callers List.



 Press the Up or Down keys to scroll up or down, and then select the desired entry.

Dial

2. Press the **Dial** soft key.



Deleting an entry

Use the following procedure to delete an entry in the Callers List.



 Press the Up or Down keys to scroll up or down, and then select the desired entry.

Del

2. Press the Del soft key.



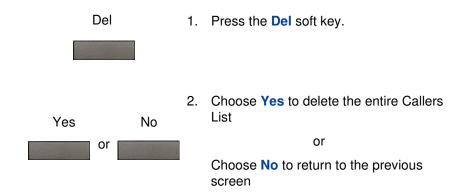
3. Press the **Yes** soft key to confirm the entry deletion.

or

Press the **No** soft key to return to the Callers List without deleting the entry.

Deleting the entire Callers List

Use the following procedure to delete the entire Callers List.



Using the Redial List

The Redial List logs a maximum of 20 outgoing calls. When the list is full, the system overwrites the oldest entry. Use the Redial List feature to review calls made and to redial numbers. The Redial List contains

- the last and first names of the dialed party (if available)
- the DN of the dialed party
- the time and date of the last occurrence of the call.

Note: If the caller name is not defined, then only the telephone number is displayed.

Entries in the Redial List are sorted based on the time of the call.

The format of names in the Redial List depends on the configuration of Preferred Name Match. The Calling Party Name Display (CPND) appears according to the configuration settings on your IP Deskphone if Preferred Name Match is active on your IP Deskphone. If Preferred Name Match is off, the CPND appears as determined by the system configuration.

To access the Redial List, press the **Directory** key and select **Redial List**. Alternatively, press the **Outbox** (**Redial**) key. If password control is enabled, you must enter your SCPW at the prompt.

Dialing an entry

Use the following procedure to dial an entry in the Redial List



 Press the Up or Down keys to scroll up or down, and then select the desired entry.

Dial

2. Press the Dial soft key.



Deleting an entry

Use the following procedure to delete an entry in the Redial List.



 Press the Up or Down keys to scroll up or down, and then select the desired entry.

Del

2. Press the Del soft key.



3. Choose **Yes** to confirm the entry deletion.

or

Choose **No** to return to the previous screen without entry deletion.

Deleting the entire Redial List

Use the following procedure to delete the entire Redial List.

Del

1. Press the **Del** soft key.



Yes No

2. Choose **Yes** to confirm the deletion of the entire Redial List.

or

Choose **No** to return to the previous screen without deletion.

Using Off-hook dialing

Perform the following steps to make a call by using the handset.



1. Lift the handset.



2. Dial the number.



To end the call, return the handset to the cradle

or

Press the Goodbye key.

Using On-hook dialing

Perform the following steps to make a call without lifting the handset.



1. Leave the handset in the cradle.





2. Press the line (DN) key.



3. Listen for the dial tone and dial the number.



4. When the called party answers, lift the handset.



5. To end the call, return the handset to the cradle



or

Press the **Goodbye** key.

Using Handsfree dialing

Use handsfree dialing to make a call using the built-in microphone and speaker or using a headset.



Press the Handsfree key.

or

If a headset is connected, press the **Headset** key.



2. Dial the number.

During a call, you can perform the following tasks:

- "Terminating a handsfree call" on page 97
- "Muting a handsfree call" on page 98
- "Switching from handsfree to handset mode" on page 98
- "Switching from handset mode to handsfree" on page 98
- "Using a headset" on page 98
- "Switching from handsfree to headset" on page 99

Terminating a handsfree call

Use the following procedure to terminate a handsfree call.



1. Press the **Goodbye** key.

Muting a handsfree call

Use the following procedure to mute a handsfree call.



Press the Mute key.
 The LED indicator flashes.



2. Press the **Mute** key again to return to a two-way handsfree conversation.

Switching from handsfree to handset mode

Use the following procedure to switch from handsfree to handset mode.



1. Lift the handset.

Switching from handset mode to handsfree

Use the following procedure to switch from handset mode to handsfree.



1. Press the **Handsfree** key.



2. Replace the handset.

Using a headset

Use the following procedure to use a headset.

1. Connect the headset to the headset jack.



Press the Headset key.

Switching from handsfree to headset

Use the following procedure to switch from handsfree to headset.



1. Press the **Headset** key.

Using the Corporate Directory

The Corporate Directory feature provides an alphabetic list of entries sorted by last name. You can search by name, view additional information on each entry, and dial Corporate Directory numbers. To use the Corporate Directory, press the **Directory** key and select **Corporate Directory**.

Searching for a specific number

Use the following procedure to search for a specific number in the Corporate Directory.



 When prompted, use the dialpad to enter the desired name in last name, first name format.





2. Press the **Search** soft key to find the desired name.

The first match appears on the screen.

Dial

Press the **Dial** soft key to dial the resulting number.

Note: If no match occurs to the search query, start a new search or change the information in the initial search.

or

Press the **Cancel** soft key to exit without dialing.

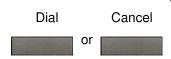
Making a call using the Corporate Directory

Use the following procedure to make a call using the Corporate Directory.

Note: This feature is not available on all IP Deskphones. Contact your system administrator to find out if this feature is available for your use.



 Press the Up or Down keys to scroll up or down, and then select a name in the Corporate Directory.



Press the Dial soft key to dial the resulting number.

or

Press the **Cancel** soft key to exit without dialing.

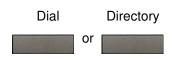
Using the Personal Directory

You can use the Personal Directory feature to store a maximum of 100 entries that consist of names and telephone numbers. To use the

Personal Directory, press the **Directory** key, and select **Personal Directory**.



 Press the Up or Down keys to scroll up or down, and then select a name in the Personal Directory.



2. Press the **Dial** soft key to dial the resulting number.

0

Press the **Directory** soft key to exit without dialing.

Using Predial

Use the Predial feature to enter, preview, and edit numbers before you make a call.

Making a call

Use the following procedure to make a call using the Predial feature.



1. Enter the number to be dialed without selecting the line key.



2. Press a line key to dial the number.



3. Lift the Handset when the called party answers, or begin to speak if you are in handsfree mode.

Editing a Predial number

Use the following procedure to edit a Predial number.



1. Use the dialpad to enter the number.



To erase all numbers, press the Clear soft key.

Reenter the numbers to dial.

or

To change one number at a time, press the **Delete** soft key to backspace. Reenter the number.



3. Press a line key to dial the number.

Using AutoDial

Use the AutoDial feature to display, store, and automatically dial telephone numbers.

Using AutoDial to make a call

Use the following procedure to make a call using the Autodial feature.



Lift the handset.



Press an AutoDial key in the upper display area to dial the number associated with that key.

Storing an AutoDial number

Use the following procedure to store an Autodial number.

AutoDial



 Without lifting the handset, press the AutoDial key.

The screen displays the word Autodial next to the appropriate key.



2. Using the dialpad, dial the telephone number (including access code) to store on the selected **AutoDial** key.

AutoDial



3. Press the **AutoDial** key a second time to store the number on the selected key.

After you store a number, the word Autodial disappears, and the stored number appears.

4. Assign a label to the key.

After you assign the label, the number disappears and only the label appears on the screen next to the key.

Displaying an AutoDial number

Use the following procedure to display an AutoDial number.

Display



1. Press the Display key.

AutoDial



Press an AutoDial key in the upper display area to display the number associated with that key.

Using Ring Again

Use the Ring Again feature to automatically redial the number if you receive a busy tone, or if your called party does not answer. Your Avaya 1230 IP Deskphone rings when the person you called becomes available.

Activating Ring Again

Use the following procedure to activate Ring Again.



1. Dial a number.

The called party does not answer or you receive a busy tone.





or

2. Press the Ring Again soft key.

or

Enter the **Ring Again Activate** Flexible Feature Code.



Calling a Ring Again party after notification

Use the following procedure to call a Ring Again party after notification.



1. After you receive the notification ring, lift the handset; or, if you use a headset or are in handsfree mode, go to step 2.



Press the Ring Again soft key to automatically dial the number.

Deactivating Ring Again before notification

Use the following procedure to deactivate Ring Again before notification.





or

1. Press the **Ring Again** soft key a second time.



or

Press the Ring Again Deactivate FFC.

Using Last Number Redial

Use the Last Number Redial feature to automatically redial the most recently dialed number.



1. To redial using the handset, lift the handset and press the line (DN) key.





2. To redial without lifting the handset, press the line (DN) key twice.

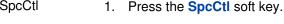
Using Speed Call

Use the Speed Call feature to place internal and external calls by dialing a one-, two-, or three-digit code. You can store, edit, and automatically dial frequently-called telephone numbers.

Storing a Speed Call number

Use the following procedure to store a Speed Call number.

SpcCtl



The triangular icon flashes to indicate programming mode.



- At the prompt, enter a one-, two-, or 2. three-digit code (0-999).
- 3. If required, dial the access code.
- 4. Enter the phone number (internal, external, or long-distance number).

SpcCtl



Press the **SpcCtl** soft key again to save 5. the code and number.

The flashing icon turns off.

Making a call using Speed Call

Use the following procedure to make a call using Speed Call.



1. Lift the handset.



2. Press the **SpcCtl** soft key.



Dial the Speed Call code to automatically dial the number.

Using System Speed Call

Use the System Speed Call feature to dial Speed Call codes that override dialing restrictions placed on your IP Deskphone.



1. Lift the handset.



Press the System Speed Call soft key.

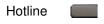
Press the **System Speed Call Controller (SScCtl)** soft key.



Dial the Speed Call code to automatically dial the number.

Using HotLine

Use the Hot Line feature to automatically dial a number.



 Press the HotLine soft key to automatically dial the number.

Using Intercom Calling

Use the Intercom feature to call a member of your intercom group by pressing the code assigned to that member.

Making an intercom call

Use the following procedure to make an intercom call.



Lift the handset.





2. Press the Intrcm key.



3. Dial the one- or two-digit code for the intercom group member.

Answering an intercom call during a call (non-intercom group line)

Use the following procedure to answer an intercom call during a call.





Press the **Hold** key to put the current call on hold.

or

Press the Goodbye key to end the call.

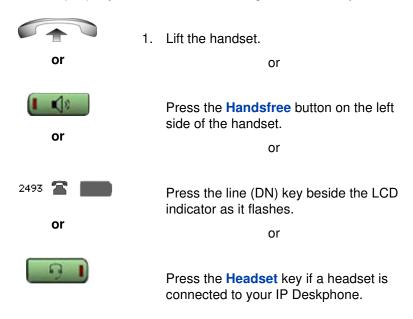
Intrcm



Press the **Intrcm** key and begin to 2. speak.

Answering a call

Each incoming call causes the IP Deskphone to ring, the LCD indicator beside the line (DN) key to flash, and the Message Indicator lamp to flash.



Managing calls while not on a call

Other than answering a call ("Answering a call" on page 109), you can efficiently handle an incoming call using one of the following methods:

- "Using Automatic Answerback" on page 109
- "Using Call Pickup" on page 110

Using Automatic Answerback

When the Automatic Answerback feature is active, your IP Deskphone automatically answers the call in Handsfree mode after one ring.

Activating Automatic Answerback

Use the following procedure to activate Automatic Answerback.

AutoAns



1. Press the **AutoAns** key.

Deactivating Automatic Answerback

Use the following procedure to deactivate Automatic Answerback.

AutoAns



1. Press the **AutoAns** key.

Note: Calls are not forwarded to the voice message service.

Using Call Pickup

Use the Call Pickup feature to pick up calls in your pickup group or another pickup group from your IP Deskphone.

Answering a call in your own call pickup group

Use the following procedure to answer a call in your own call pickup group.



1. Lift the handset.

Pickup

2. Press the **Pickup** key.

or



or

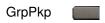
Enter the **Pickup Ringing Number** FFC.

Answering a call in another call pickup group

Use the following procedure to answer a call in another call pickup group.



1. Lift the handset.



2. Press the GrpPkp soft key.

or

Enter the **Pickup Group** FFC.



3. Dial the pickup group number of the ringing IP Deskphone.

Answering a call at a specific extension in any pickup group

Use the following procedure to answer a call at a specific extension in any call pickup group.



1. Lift the handset.



Pickup

2. Press the DN Pickup key.

or



or

Enter the **Pickup Directory Number** Flexible Feature Code.



3. Dial the DN of the IP Deskphone that is ringing (and does not belong to your call pickup group). If the pickup DN or group number is invalid (you hear an overflow burst tone and the screen displays *Goodbye and try again*); press the **Goodbye** key.

Managing calls during a call

You can use the following features during a call:

- "Using Call Hold" on page 112
- "Using Call Waiting" on page 113
- "Transferring a Call" on page 114
- "Using Timed Reminder Recall" on page 115
- "Using Attendant Recall" on page 117
- "Using Call Park" on page 117
- "Recording a Calling Party (Caller) Number" on page 120
- "Displaying call details" on page 120

Using Call Hold

Use the Hold feature to place the original call on hold and then answer the second call.

Placing a call on hold

Use the following procedure to place a call on hold.



Press the Hold key.

The LCD indicator flashes beside the line on hold.

Note: Enabling **Automatic Hold** automatically places the active call on hold when you answer the second call.

Retrieving a call on hold

Use the following procedure to retrieve a call on hold.



 Press the Hold key to place an active call on hold. Press the Hold key again or press the flashing line (DN) key to return to the caller on hold.

Using Call Waiting

The Call Waiting feature produces a tone to alert you to an incoming call when you are already on a call. Call Waiting allows you to place the current call on hold while you answer the new call.

Answering a call during another call

Use the following procedure to answer a call during another call.



 Upon receiving a call, press the Hold key to place the current call on hold.

Note: Enabling Automatic Hold automatically puts the active call on hold when you answer the second call.

CallWait



Press the Call Waiting key.

Returning to the original call

Use the following procedure to return to the original call.



 Press the Hold key to place the second call on hold.

or

Press the **Goodbye** key to end the second call.

2493 🖀 🔙

2. Press the line (DN) key associated with the first call.

Transferring a Call

Use the Transfer feature to redirect a call to the appropriate person.

Transferring a call to a third party

Use the following procedure to transfer a call to a third party.

Trans



Press the Trans soft key during an 1. active call.

The calling party is placed on hold. You hear a dial tone. The indicator icon flashes steadily.



Dial the number to which you are 2. transferring the call.

Trans



3. When that telephone rings or a person answers the call, press the **Trans** soft key.

The calling party is connected to the appropriate person.

Returning to the original call if the transfer is incomplete

Use the following procedure to return to the original call if the transfer is incomplete.







If the called party does not answer the transferred call, press the line (DN) key (next to the LCD indicator) to reconnect to the calling party.

Using Timed Reminder Recall

Use the Timed Reminder Recall feature to receive an automatic reminder tone when a transferred call is not answered.

Transfering a call using Timed Reminder Recall

Use the following procedure to transfer a call using Timed Reminder Recall.

Trans



1. Press the **Trans** soft key.

The call is placed on hold.



2. Dial the number to which you are transferring the call.

Trans



3. Press the **Trans** soft key.

or

Replace the handset before the extension answers.

Note: If the transfer is complete, the recall timer stops.



If the transferred call is not answered, your IP Deskphone rings.

Returning to the original call if the transferred call is unanswered

Use the following procedure to return to the original call if the transferred call is unanswered.



1. Lift the handset to reconnect to the calling party.

Trans



or



2. Press the **Transfer** soft key and retry call transfer.

or

If the called party answers, press the **Goodbye** key to complete the transfer.

Using Attendant Recall

Use the Attendant Recall feature to contact an attendant during a call and to connect the caller to the attendant.

AttRcl



 Press the Attendant Recall key and stay on the line until the attendant answers.



Press the Goodbye key.
 The caller connects to the attendant.

Using Call Park

Use the Call Park feature to hold (park) your active call temporarily and retrieve a call from any IP Deskphone. Using Call Park does not tie up a line.

Parking a call on the System Park DN

To park a call on the System Park DN or your own DN, perform the following procedure.



1. During an active call, press the **Park** soft key twice.

The call is parked on your DN.

Note: Enabling System Park DN automatically parks the calls on the system park DN.

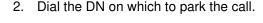
Parking a call on a DN (not System Park DN or own DN)

To park a call on a DN (not System Park DN or own DN), perform the following procedure.



Park

1. Press the **Park** soft key.

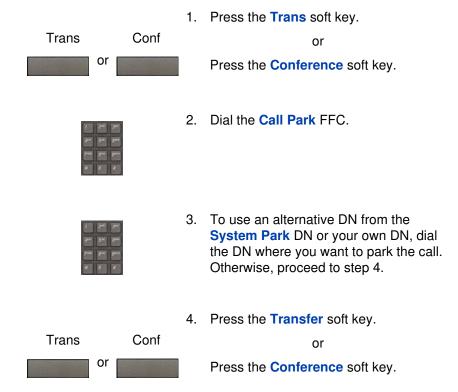




3. Press the **Park** soft key.

Parking a call using the SPRE code or FFC

To park a call using the SPRE code or FFC, perform the following procedure.



Retrieving a parked call

Use the following step to retrieve a parked call.

Note: When Call Park is configured network-wide, you can use this feature across networks. You can configure a System Park extension to automatically park most calls.



1. Lift the handset.

Park

2. Press the Park soft key.



Dial the DN where you parked the call.
 If a parked call is not retrieved within a specific time, it rings back to your IP Deskphone or to the attendant.

Recording a Calling Party (Caller) Number

During a call, use the Calling Party Number feature to record the calling party number, or to charge the call to an account number.



Press the Call Party soft key.
 The caller is placed on hold.



2. Dial a charge account number or the caller number.

Note: For information about using the Charge soft key, see "Using AutoDial Transfer" on page 149.



3. Press the **Call Party** soft key to return to the call.

Displaying call details

During an active call, use the Display feature to display the caller's number and name (if available) without interfering with the call.

Display



1. Press the **Display** key.



2. Press the flashing line (DN) key.

The call information appears.

If you use another feature, you can use the **Display** key to access information associated with those feature keys.

Managing calls while away from your desk

You can use the following features when you are away from your desk to manage an incoming call and to ensure you do not miss a call:

- "Using Call Forward" on page 121
- "Using Internal Call Forward" on page 123
- "Using Remote Call Forward" on page 125

Using Call Forward

Use the Call Forward feature to direct incoming calls to ring on another line (DN). A call already on your IP Deskphone cannot be forwarded.

Activating Call Forward

Use the following procedure to activate Call Forward or change the Call Forward number.



Press the Fwd soft key.

or

Lift the handset and enter the Call Forward All Calls Activate FFC.



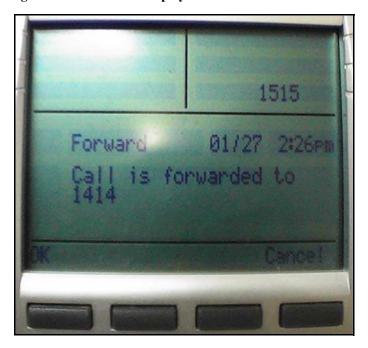
2. Dial the DN to which you want to forward your calls.



Press the Fwd soft key.

To see the number to which calls are being forwarded, press the **Forward** soft key. A message box with the target number is displayed as shown in the following figure.

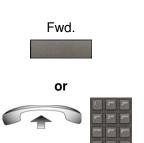
Figure 7: Call Forward display



Press **OK** to return to the idle screen or press **Cancel** to cancel Call Forwarding.

Deactivating Call Forward

Use the following procedure to deactivate Call Forward.



 Press the Forward soft key and press the Cancel soft key.

OR

 Lift the handset and enter the Call Forward All Calls Deactivate FFC.

Reinstating a Call Forward number

Use the following procedure to reinstate a Call Forward number.

Press the Fwd soft key twice.

Fwd.

Using Internal Call Forward

Use Internal Call Forward to forward only those calls that originate from internal DNs. Calls that originate outside your IP Deskphone system (External Calls) ring on your IP Deskphone. You cannot forward the currently active call.

Forwarding internal calls only

Use the following procedure to forward internal calls only.



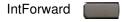
 Press the IntForward key and press the Cancel soft key.

or

Lift the handset and enter the **Internal** Call Forward Activate FFC.



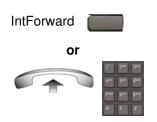
2. Dial the DN to which you want to forward your internal calls.



3. Press the IntForward key.

Deactivating Internal Call Forward

Use the following procedure to deactivate Internal Call Forward.



1. Press the **IntForward** key.

or

Lift the handset and enter the **Internal Call Forward Deactivate** FFC.

Reinstating Internal Call Forward number

Use the following procedure to reinstate an Internal Call Forward number.



1. Press the IntForward key twice.

Using Remote Call Forward

Use the Remote Call Forward feature to forward calls on your IP Deskphone to another DN from a remote telephone.

Activating Remote Call Forward

Use the following procedure to activate Remote Call Forward.



Lift the handset.



2. If you call from a telephone outside the system, dial your direct system access number and wait for the dial tone.



 Dial the Remote Call Forward Activate FFC to activate the feature.



Dial your Station Control Password.
 You hear a dial tone.



5. Dial your DN.



or



To reinstate call forward to the previous call forward number, press the # key. (Do not perform steps 6 and 7.)



Dial the number to which to forward the calls.

If the number dialed is invalid, you hear a fast busy signal.



7. Press the # key.

Deactivating Remote Call Forward

Use the following procedure to activate Remote Call Forward.



1. Lift the handset.



2. If you call from a telephone outside the system, dial the direct system access number and wait for the dial tone.



3. Dial the Remote Call Forward Deactivate FFC.



4. Dial your **Station Control Password**.



After you hear the dial tone, dial your DN.



6. Press the # key.

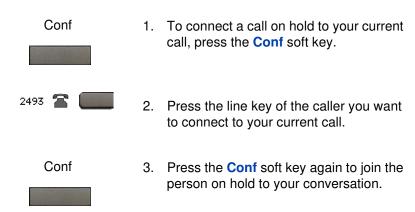
Managing multiparty calls

Use the following features to enable multiparty conversations

- "Using Call Join" on page 127
- "Setting up a Conference Call" on page 127
- "Using Conferee Selectable Display" on page 129
- "Using Group Call" on page 130

Using Call Join

Use the Call Join feature to connect a new caller to an active call. This connection creates a conference (conversation involving more than two parties) between the two callers and yourself.



Setting up a Conference Call

Use the Conference feature to initiate a conference call for a group of three to six people including yourself. The maximum number of people supported in a conference call depends on the IP Deskphone configuration.

Conf



During a call, press the Conference key 1. to place the party on hold.

You hear a dial tone.



Dial the number of the person to add to 2. the conference call.

Alternatively, instead of dialing a number, you can press the **Directory** key, and use the Corporate Directory or Personal Directory, Redial List, and Callers List to find and dial the number of the person you want to add to the conference call.

You can talk to the called person privately without being heard by the party on hold.

Conf



3. Press the Conference key again to connect all parties.



If the party you attempt to add to the conference is unavailable, press the Goodbye key.

The attempted call ends.





5. Press the line (DN) key beside the flashing icon to return to your original call.

Using Conferee Selectable Display

Use the Conferee Selectable Display feature to list active conferees and to disconnect a conferee from the conference call.

Viewing active conferees

Use the following procedure to view active conferees.





 During a conference call, press the Confdsp key to turn on the LCD indicator. Each key press changes the screen to show a different active conferee.

This action has no effect on the display of other IP Deskphones involved in the conference.



Press the Goodbye key.

If configured, the **Conference Count Display** returns an updated count of conferees. The LCD indicator turns off.

Disconnecting a conferee

Use the following procedure to disconnect a conferee.

ConfDsp



 During a conference call, press the Confdsp key until the conferee to disconnect appears on the screen.

2493





2. Press the **DN** key on which the conference call is established.



 For a single conferee, press the Goodbye key. If configured, the Conference Count Display returns an updated total count of conferees. The LCD indicator turns off.

or

For multiple conferees, repeat steps 1 and 2 until all conferees are disconnected. Then press the **Goodbye** key.

Using Group Call

Use the Group Call feature to automatically call members of a predefined group, one at a time, until all members answer.

Calling group members

Use the following procedure to call group members.



1. Lift the handset.

GrpCI



Press the GrpCl key or enter the Group Call FFC.

The feature automatically calls all group members. The icon flashes until all members answer. The telephone numbers of the group members appear on the display as they answer. When the last person answers, the **Group Call** icon lights steadily.

Note: When a person in your group is on a conference call or another group call, they are not connected to your group call.

Note: During a group call, only the person who initiated the group call can put the call on hold.

Answering a group call

Use the following procedure to answer a group call.



- Lift the handset.
 Note the following about notification tones:
 - If you are on a call and receive three 10-second tones, this is the notification of a group call on your IP Deskphone.
 - If you are on a call on another line when a group call is made, you receive a long tone through the handset or speaker.
 - If you are already on a conference call or another group call, you do not receive notification of a group call.

Ending a group call

Use the following procedure to end a group call.



Press the Goodbye key.

Note: When the person who made the group call disconnects, the call terminates for all members of the group. However, the members of the group call can disconnect from the call and not affect other members on the call.

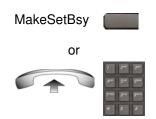
Managing calls while busy at work

Using Make Set Busy

Use the Make Set Busy feature to make your IP Deskphone appear busy to all callers.

Activating Make Set Busy

Use the following procedure to activate Make Set Busy.



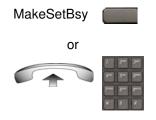
Press the MakeSetBsy key.

or

Lift the handset, and enter the **Make Set Busy Activate** FFC.

Deactivating Make Set Busy

Use the following procedure to deactivate Make Set Busy.



 Press the MakeSetBsy key a second time to deactivate the feature.

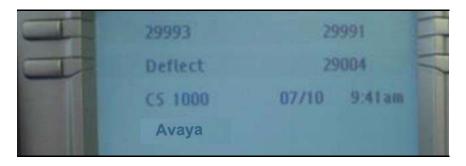
or

Lift the handset and enter the **Make Set Busy Deactivate** FFC.

Call Deflect

If Call Deflect is configured on your IP Deskphone, you can press the Deflect feature key to deflect your call if your IP Deskphone rings and you do not want to answer the call. The call may be forwarded to your voice mail or to another telephone number, depending on your system configuration. Contact your system administrator to learn which treatment is configured for your IP Deskphone.

Figure 8: Call Deflect



If you press the **Deflect** key and no special call treatment has been configured, your caller receives a busy signal.

Hotel applications

Hotel applications are a group of hospitality features that increase the value of the Avaya 1230 IP Deskphone. In a hotel environment, guests can access the following services:

- "Configuring Automatic Wake-Up" on page 134
- "Activating Message Registration" on page 136
- "Using Maid Identification" on page 138
- "Using Room Status" on page 140

Configuring Automatic Wake-Up

Use the Automatic Wake-Up feature to receive a timed reminder call. You can program your IP Deskphone to automatically place a call at a predetermined time. When you answer the call, prerecorded music plays for 30 seconds followed by a prerecorded announcement or the attendant on the line.

Entering Automatic Wake-Up call

Use the following procedure to enter an Automatic Wake-Up call.



Lift the handset.



Dial the Automatic Wake-Up Request FFC.



3. Dial the **Automatic Wake-Up** time in a 24-hour time format (hhmm).

You hear a tone to confirm your entered time.

To enter the time in a 24-hour time format, enter the hours followed by the minutes. For example, to configure the time to 7:30 a.m., enter 0730; to configure it to 9:45 p.m., enter 2145.



4. Press the **Goodbye** key.

Cancelling Automatic Wake-Up call

Use the following procedure to cancel Automatic Wake-Up call.



1. Lift the handset.



2. Dial the Automatic Wake-Up Quit FFC.



3. Press the **Goodbye** key.

Verifying Automatic Wake-Up call

Use the following procedure to verify Automatic Wake-Up call.



1. Lift the handset.



2. Dial the **Automatic Wake-Up Verify** FFC.



3. Dial the **Automatic Wake-Up** time in a 24-hour time format (hhmm).

You hear a confirmation tone if your query matches the preset time.

To enter the time in a 24-hour time format, enter the hours followed by the minutes. For example, to configure the time to 7:30 a.m., enter 0730; to configure it to 9:45 p.m., enter 2145.



4. Press the **Goodbye** key.

Activating Message Registration

Use the Message Registration feature to read, change, or reset meters that log your IP Deskphone calls.

Reading meters

Use the following procedure to read meters.





1. Press the MRK key.



2. Dial the **Directory Number** (DN) of the IP Deskphone in the hotel room.

MRK



3. Press the MRK key.

Changing meter

Use the following procedure to change a meter.

MRK



1. Press the MRK key.



2. Dial the **Directory Number** (DN) of the IP Deskphone in the hotel room.



3. Dial the correct meter count.



4. Press the * key.





5. Press the MRK key.

Resetting a meter to zero

Use the following procedure to reset a meter to zero.

MRK



1. Press the MRK key.



2. Dial the **Directory Number** (DN) of the IP Deskphone in the hotel room.



3. Press the * key.

MRK



4. Press the MRK key.

Using Maid Identification

Use the Maid Identification feature to track the cleaning status of rooms. The maid enters the information from the IP Deskphone in your room.

Entering cleaning status

Use the following procedure to enter cleaning status.

RMK



1. Press the **RMK** key.



2. Dial the **Directory Number** (DN) of the room.



- 3. Dial one of the following cleaning status codes:
 - 1 = Cleaning requested
 - 2 = Cleaning in progress
 - 3 = Room cleaned
 - 4 = Room passed inspection
 - 5 = Room failed inspection
 - 6 = Cleaning skipped

You hear an interrupted dial tone.



4. Press the * key.



5. Dial the Maid ID.

If you dial the wrong **Maid** ID, press the * key and redial the ID.

RMK



6. Press the RMK key.

Using Room Status

Use the Room Status feature to display the status of a room.

Displaying room status

Use the following procedure to enter cleaning status.

RMK



1. Press the RMK key.



Dial the **Directory Number** (DN) for the room.

The DN appears followed by a two-digit code.

The first digit indicates the occupancy status:

- 0 = Room vacant
- 1 = Room occupied

The second digit indicates the cleaning status of the room:

- 1 = Cleaning requested
- 2 = Cleaning in progress
- 3 = Room cleaned
- 4 = Room passed inspection
- 5 = Room failed inspection
- 6 = Cleaning skipped

RMK



3. Press the **RMK** key.

Changing the status of a room

Use the following procedure to change the status of a room.

RMK



Press the RMK key.



Dial the **Directory Number** (DN) for the room.

The DN appears followed by a two-digit code.

The first digit indicates the occupancy status:

0 = Room vacant

1 = Room occupied

The second digit indicates the cleaning status of the room:

1 = Cleaning requested

2 = Cleaning in progress

3 = Room cleaned

4 = Room passed inspection

5 = Room failed inspection

6 = Cleaning skipped



3. Dial the status code for the room.

A three-digit code appears. The first digit indicates the occupancy status, the second is the previous cleaning status, and the third is the new status.

RMK



Press the RMK key.

Paging Features

The Avaya 1230 IP Deskphone supports the following paging voice call features:

- "Using Call Page Connect to make an announcement" on page 142
- "Using Radio Page" on page 142
- "Using Voice Call" on page 145

Using Call Page Connect to make an announcement

Use the Call Page Connect feature to make an announcement over a paging system.

Note: A **Page** key on an attendant console overrides and disconnects the IP Deskphones. The IP Deskphones must reaccess the page trunk.



Lift the handset.



- Dial the Page Trunk Access Code to complete the connection to the page system.
- 3. Make your announcement.



4. Press the **Goodbye** key.

Using Radio Page

Use the Radio Page feature to page a user and stay on the line until the called party answers. The paged user answers the call after entering a special Page Meet-Me code from any IP Deskphone.

Using Automatic Preselection (Meet-Me page)

Perform the following procedure to use Automatic Preselection.



1. Lift the handset.



2. Dial the Radio Paging Access FFC.

You hear the paging tone (two beeps followed by a dial tone).



3. Dial the number of the party you want to page.

After dialing, you hear the ringback tone.

The paged party can use any telephone to enter a **Radio Paging Answer** FFC and their own DN number.



 If your call remains unanswered for a preset time period, during which you hear a 15-second high-pitched tone sounds followed by silence, press the Goodbye key or replace the handset.

Using Automatic Post-selection

The called party is either busy on the telephone or away from their desk. To page the called party, you do not need to redial the number of the called party.

RadPag



1. Press the RadPag soft key.

You hear a special dial tone.



2. Dial the Radio Paging Access FFC.

You hear the ringback tone.

The paged party can use any telephone to enter a **Radio Paging Answer** FFC, and their own DN number.



 If your call remains unanswered for a preset time period, during which you hear a 15-second high-pitched tone, followed by silence, press the Goodbye key or replace the handset.

Answering a Radio Page

If you carry a Radio Pager, a page indicates that a caller tried to reach you by dialing your DN. If the Radio Page system is configured to function in Meet-me mode, you can answer the page call from any IP Deskphone.



Lift the handset.



Dial the Radio Page Answer FFC.You hear the paging tone.



3. Dial your own DN to connect to the paging caller.

If the caller disconnects, you hear a high-pitched (number unavailable) tone.

Using Voice Call

Use the Voice Call feature to make an announcement from another IP Deskphone speaker.

Making a voice call

Use the following procedure to make a voice call.



Lift the handset.



Press the VceCall key and make the announcement.



3. Press the **Goodbye** key.

Responding to a voice call

Use the following procedure to respond a voice call.



 Your IP Deskphone rings once and the caller's voice transmits through your speaker. Lift the handset to respond.

Call Override features

Use the Call Override features to connect to a busy user. You can connect to a user immediately, or after their current call ends. Some call override features are available only if your system administrator configures them. Contact your system administrator to determine if the following call override features are available:

- "Overriding a busy signal" on page 146
- "Using Forced Camp-on feature" on page 146

"Using Enhanced Override" on page 148

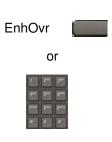
Overriding a busy signal

Use the Override feature to override a busy signal and interrupt another call.



1. Dial a number.

You receive a busy tone.



Press the EnhOvr key.

or

Enter the Override FFC.

The person in the targeted call receives a tone for approximately 1 second. After the Override feature connects you to the call, a short tone repeats every 16 seconds.



3. To terminate the call, press the **Goodbye** key.

Using Forced Camp-on feature

Use the Forced Camp-on feature to automatically call a busy telephone (internal or external) immediately after the telephone disconnects from the current call.

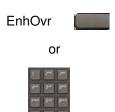
Using Forced Camp-on

Follow the given procedure to use Forced Camp-on.



1. Dial a number.

You receive a busy tone.



Press the EnhOvr key.

or

Enter the **Override** FFC to initiate a Forced Camp-on.

The called party receives a tone. You hear a ring signal or a busy signal, depending on the options chosen. You are now camped-on to the number you dialed.

- 3. Return the handset to the cradle.
- When the called party finishes the call, your IP Deskphone automatically dials the number and both telephones ring.

Answering a call camped-on to your extension

Use the following procedure to answer a call camped-on to your extension.



 When your IP Deskphone rings, lift the handset.

Note: You can program your IP Deskphone for either Camp-on or Call Waiting, but not both.

Using Enhanced Override

Use the Enhanced Override feature to override an active call after you attempt a Forced Camp-on.



1. Dial a number.

You receive a busy signal.



Press the EnhOvr key.

or

Enter the **Override** FFC to initiate a Forced Camp-on.

If either person on the call disconnects at this time, you receive an overflow (fast busy or engaged) signal.

enhOvr or

3. Press the **EnhOvr** key again.

or

Enter the **Override** FFC again.

The other two people on the call receive an override tone and a conference call is established between the three of you. If anyone disconnects, the other two people remain connected.



4. To terminate the call, press the **Goodbye** key.

Using Centrex services

You can use a few Centrex services from your IP Deskphone. Contact your system administrator to determine if the following features are available:

- "Using Centrex or Exchange Line Switchhook Flash" on page 149
- "Using AutoDial Transfer" on page 149

Using Centrex or Exchange Line Switchhook Flash

Use the Centrex or Exchange Line Switchhook Flash feature during an active call to use Call Transfer or Three-Way Calling.



During a call, press the CentrexSHF key.

You hear a special dial tone.



Dial the codes for your custom Centrex feature.



3. Press the **Goodbye** key to end the call.

Using AutoDial Transfer

Use the AutoDial Transfer feature to transmit digits to the Central Office after a Trunk Switchhook Flash. You must be on a Central Office/ Exchange (CO) trunk call from, or connected to, a CO that offers Centrex or exchange line-type features.



 Press the CentrexSHF key, and wait for an interrupted dial tone. Autodial



Press the AutoDial key to call the number desired.



3. Press the Goodbye key to end the call.

Miscellaneous call features

Some call features are available only if your system administrator configures them. Contact your system administrator to determine if the following call features are available.

- "Tracing calls" on page 150
- "Charging a call or charging a forced call" on page 151
- "Using the Buzz signal" on page 155
- "Using Privacy Release" on page 156
- "Using External Server Applications" on page 156
- "Using Record On Demand key" on page 156
- "Using SAVE key" on page 157

Tracing calls

Use the Call Trace feature to trace malicious calls within your system.

Tracing with the Call Trace key

Perform the following step to trace with the Call Trace key.

CallTrace



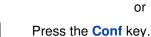
Press the CallTrace key.

Using Call Trace without a Call Trace key

Use the following procedure to use Call Trace without a Call Trace key.



Press the Trans soft key.





 Dial the SPRE code followed by 83, or dial the Call Trace FFC to automatically reconnect.

Charging a call or charging a forced call

Use the Call Charge feature to charge a call to a specific account. The Forced Charge feature charges long-distance calls from an IP Deskphone that is restricted to local calls.

Charging a local or long-distance call to an account before you dial

Use the following procedure to charge a local or long-distance call to an account before you dial.



1. Lift the handset.



2. Press the **Charge** soft key.



or

Dial the Call Detail Recording FFC.



3. Dial the charge account number.



4. When you hear the dial tone, dial the number.

Charging a call in progress

Use the following procedure to charge a call in progress.

Trans Conf

1. Press the **Trans** soft key.

or

Press the **Conf** soft key.

The call is placed on hold.

2. Press the Charge soft key.

or

Dial the Call Detail Recording FFC.





3. Dial the charge account number.

2498



4. Press the line (DN) key to return to the call.

Charging a transferred call to an account

Use the following procedure to charge a transferred call to an account.

Trans



Press the Transfer soft key.
 The call is placed on hold.

Charge



or



2. Press the **Charge** soft key.

or

Dial the Call Detail Recording FFC.



3. Dial the charge account number.



4. After you hear the dial tone, dial the number to which you are transferring the call.





5. Press the **Transfer** soft key when you hear the IP Deskphone ring.

You can talk privately to the person at the transfer number before you press the **Transfer** soft key.

Charging a conference call to an account

Use the following procedure to charge a call to an account when you add someone to a conference call

Conf



Press the Conf soft key.
 The call is placed on hold.



2. Press the Charge soft key.

or

Charge

or



Dial the Call Detail Recording FFC.



3. Dial the charge account number.



4. Dial the number of the person you want to add to the conference.





5. Press the **Conference** soft key.

Using the Buzz signal

Use the Buzz feature to notify another person of a call, a visitor, or a request. Two linked IP Deskphones enable one person to signal the other. The person signaled hears a buzz.

Buzz



1. Press the Buzz key.

The IP Deskphone linked to your IP Deskphone buzzes as long as you press the key.

Using Privacy Release

Use the Privacy Release feature to enable one or more people who share your DN to join a call.

PrvRls

1. Press the **PvRIs** soft key during a call.

People can join the call by pressing the shared number (DN) key on their IP Deskphone (Multiple Appearance DN feature).

Using External Server Applications

Use External Server Applications to directly access a variety of applications from your Avaya 1230 IP Deskphone.

To learn more about the available features and services, contact your system administrator. Depending on which features are available on your system, your phone can provide information; for example, local news and weather, stock market information, or traffic reports.

For more information about the External Server Applications, see the *Avaya IP Deskphone External Server Applications User Guide* (NN-43100-100).

Using Record On Demand key

If this feature is enabled, you can use the Record on Demand (ROD) feature key to record your telephone conversation.

Press the ROD key to start or stop the call recording. This key is associated with the active user ID and is displayed only if a call is active. The ROD key blinks while it is connecting to the call recording application, and is lit when the call is recording.

The ROD key is displayed in the following scenarios:

 Normal operation — Press the ROD key during an active call to record the call.

- Call Recording (CR) application in ROD Mode Press the ROD key during an active call to record the call
- Bulk Recording For an active call or unregistered DN/Position ID, call recording is initiated even though the ROD key is not pressed..
 - Press the ROD key during an active call.
 - 2. To stop the call recording, press the ROD key again.

Using SAVE key

Use the **SAVE** feature key to save the recording of an active call. This key is associated with the active user ID and is operational only if a call is active.

The **SAVE** key is displayed in the following scenarios:

- Normal operations If the SAVE key is pressed during an active call, the call is saved.
- CR application in Bulk Record + Save everything mode Recorded conversation is saved at the end of the call. If the SAVE key is pressed, then the call is not saved.
- CR application in Bulk Record + Delete everything mode Recorded conversation is deleted at the end of the call. If the SAVE key is pressed, then the call is saved.

The **SAVE** key lamp status depends on the status of the call recording. If the call is to be saved, then the lamp is lit.

- 1. Press the ROD key during an active call.
- 2. To stop the call recording, press the ROD key again.

Press the SAVE key to save the conversation.

Using voice mail soft keys

Note: This feature is not available on all telephones. Contact your system administrator to determine if this feature is available on your telephone.

When this feature is enabled, then when you access your voice mail, either by pressing the Messages/Inbox key, or by dialing your voice mail access number, voice mail soft keys are displayed that let you perform various actions for your messages.

The following soft keys are displayed:

Play	Delete	Call	More
Stop	Conf	Reply	More
Comp	Forwrd	Bye	More

Soft key	Action
Play	Play the voice mail message.
Delete	Delete the voice mail message.
Call	Call the telephone number that left the voice mail message.
More	Display the next layer of soft keys.
Stop	Stop playing the voice mail message.
Conf	Conference in another party to listen to the voice mail message.
Reply	Reply to the voice mail message.
More	Display the next layer of soft keys.

Soft key	Action
Comp	Compose a voice mail message.
Forwrd	Forward the voice mail message to another telephone number.
Bye	Disconnect from the voice mail system.
More	Cycle back to the first layer of soft keys.

Voice mail soft keys are displayed:

- when you press the Messages/Inbox key (internal and external)
- when you dial the voice mail access number manually (internal only)

Troubleshooting your Avaya 1230 IP Deskphone

This section provides basic information about troubleshooting your Avaya 1230 IP Deskphone if Virtual Office causes a problem. For additional help, see "Customer service" on page 23.

Virtual Office

Virtual Office can cause error messages to display on-screen.

Table 10 on page 160 lists error messages and describes actions to correct the causes.

Table 10: Troubleshooting Virtual Office (Part 1 of 4)

Displayed message	Probable cause	Action
Busy, try again	Remote IP Deskphone is active (not idle).	Wait for remote IP Deskphone to become idle and try again.
	ACD is logged on.	Log off ACD IP Deskphone before you initiate Virtual Office from another IP Deskphone.
	Make Set Busy is inactive on ACD IP Deskphone.	Configure Make Set Busy active on ACD IP Deskphone.

Table 10: Troubleshooting Virtual Office (Part 2 of 4)

Displayed message	Probable cause	Action
Invalid ID (1)	Incorrect User ID entered.	Enter correct User ID.
	User ID is not in Gatekeeper database.	Notify system administrator.
Invalid ID (2)	Incorrect User ID entered.	Enter correct User ID.
Invalid ID (3)	Incorrect User ID entered.	Enter correct User ID.
	User ID in Gatekeeper database points to originating Call Server.	Notify system administrator.
Locked from Login	Three failed attempts to enter the correct Station Control Password.	Wait one hour for the lock to clear automatically, or notify system administrator to clear lock.
Permission Denied (1)	Remote IP Deskphone has no Station Control Password.	Notify system administrator.

Table 10: Troubleshooting Virtual Office (Part 3 of 4)

Displayed message	Probable cause	Action
Permission Denied (3)	Incorrect User ID entered.	Enter correct User ID.
	Remote IP Deskphone has no Station Control Password.	Notify system administrator.
Permission Denied (4)	Incorrect User ID entered.	Enter correct User ID.
	Attempt to log on to a remote Avaya 1120E IP Deskphone or an Avaya 2050 IP Softphone from an Avaya 1230 IP Deskphone (some restrictions apply).	Go to an Avaya 1120E IP Deskphone or an Avaya 2050 IP Softphone and try again, or consult your local system administrator.
Permission Denied (6)	Incorrect User ID entered.	Enter correct User ID.
	Incorrect Station Control Password entered.	Select Retry, and try again with the correct Station Control Password.
Server Unreachable (1)	Network problem.	Notify system administrator if the problem persists.

Table 10: Troubleshooting Virtual Office (Part 4 of 4)

Displayed message	Probable cause	Action
Server Unreachable (2)	Network problem.	Notify system administrator if the problem persists.
VOUD configured on TN	Remote IP Deskphone does not have VOUA Class of Service.	Notify system administrator.

Flexible Feature Codes

Use the Table 11 to track and organize the FFCs assigned to features by your system administrator.

Table 11: Flexible Feature Codes (Part 1 of 2)

FFC	Feature	FFC	Feature
	Automatic Wake-Up Activate		Make Set Busy Activate
	Automatic Wake-Up Deactivate		Make Set Busy Deactivate
	Automatic Wake-Up Verify		Malicious Call Trace
	Call Detail Recording Charge Account		Override

Table 11: Flexible Feature Codes (Part 2 of 2)

FFC	Feature	FFC	Feature
	Call Forward All Calls Activate		Pickup Ringing Number
	Call Forward All Calls Deactivate		Pickup Directory Number
	Call Park		Pickup Group
	Electronic Lock Activate		Radio Paging Access
	Electronic Lock Deactivate		Radio Paging Answer
	Group Call		Remote Call Forward Activate
	Internal Call Forward Activate		Remote Call Forward Deactivate
	Internal Call Forward Deactivate		RingAgain Activate
	RingAgain Deactivate		Virtual Office Terminal Log Off
	Station Control Password Change		Virtual Office Terminal Log On

Avaya 1200 IP Deskphone LCD Expansion Module

This section provides information about the LCD Expansion Module (12-key self-labeling) supported by the Avaya 1230 IP Deskphone.

The LCD Expansion Module is a hardware accessory that connects to the Avaya 1230 IP Deskphone and provides additional line appearances and feature keys.

Basic features

The LCD Expansion Module supports the following features:

- 12 user-defined feature keys
- wall or desk mountable
- a maximum of seven LCD Expansion Modules (12-key self-labeling) can be connected

Keys and descriptions

For the location of the keys and components on the LCD Expansion Module, see Figure 9 on page 166.

Figure 9: LCD Expansion Module (12-key self-labeling)



Table 12 on page 167 gives a description of the keys and components of the LCD Expansion Module.

Table 12: LCD Expansion Module keys descriptions

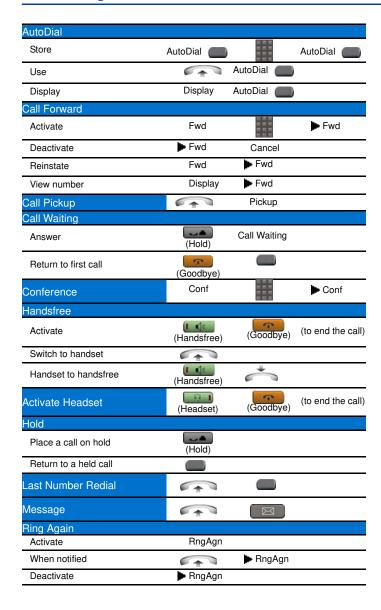
Key or components	Description
User-defined feature keys	The keys on the Expansion Modules are programmable, with LCD labels. The system administrator programs these keys as either memory, line, or intercom keys.
	A steadily lit icon beside a programmable line key indicates that the line is active. A flashing icon indicates the line is on hold or that the feature is being programmed.
	A steadily lit icon beside a feature key indicates that the feature is active. A flashing icon indicates that the feature is being programmed.
Display	The LCD display provides labels for the programmed keys and icons that show the feature state.

For information about connecting the Expansion Module, see the Expansion Module for Avaya 1200 Series IP Deskphones Quick Installation Guide (NN40050-303)

Avaya 1200 IP Deskphone LCD Expansion Module

Quick Reference

Feature operation



Quick Reference

Transfer	Trans	形 市 市 市 市 市 市 市 市	► Trans
Adjust volume	(Volume +)	(Volume -)	

Legend

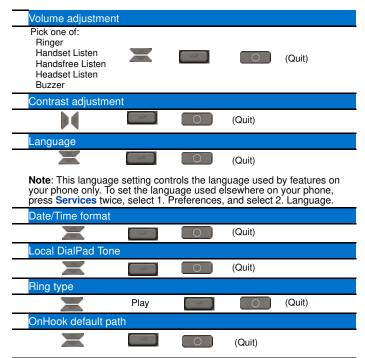
Icon	Action
()	Indicates the key cap text label. For example, (Message).
	Lift the handset, press the line (DN) key or the Handset key.
	Replace the hand- set or press (Goodbye) to end the call.
222	Dial a number.
	Press a line/feature key.
► AutoDial	An icon flashes when a feature is being programmed. An icon lights steadily when a feature is active.
.	Press the Services key once for call platform features or press the Services key twice to access Local Tools menu options.
	Press the Message/Inbox key.
	Press the Up/Down Navigation keys
	Press the Enter key ()
91	Press the Headset key.
1 (10	Press the Handsfree key.
1 1	Press the Mute (on/off) key.
	Press the Directory key.
	Press the Quit/Stop key.

Services and Telephone Options menus



Note: The Services menu contains the Telephone Options, Password Admin, and Virtual Office Login. Some options are not available on all Avaya 1220 IP Deskphones. Consult your system administrator.

Telephone Options menu



Note: The **Directory** key provides access to the Corporate Directory, Personal Directory, Redial List, and Callers List.

Quick Reference

Third party terms

Third Party Terms for UNIStim sw releases 4.1 thru 5.0 (Jan 2010 - Nov 2010)

Certain portions of the product ("Open Source Components") are licensed under open source license agreements that require Avaya to make the source code for such Open Source Components available in source code format to its licensees, or that require Avaya to disclose the license terms for such Open Source Components. For a period of three years from your date of purchase of a product containing any of the software listed below from Avaya Inc., any Avaya affiliate or an authorized Avaya reseller, we will provide upon request a complete machine readable copy of the source code for such Open Source Component on a medium customarily used for software interchange for a charge no more than our cost of physically performing source distribution. To get access to the source code, you may contact Avaya at (408) 577-7666.

The Open Source Components are provided "AS IS". ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR THE CONTRIBUTORS OF THE OPEN SOURCE COMPONENTS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THE PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The following component is licensed under Public Domain:

DateTime

- * PUBLIC DOMAIN NOTICE
- * National Center for Biotechnology Information

*

* This software/database is a "United States Government Work" under the terms of the United States Copyright Act. It was written as part of the author's official duties as a United States Government employee and thus cannot be copyrighted. This software/database is freely available to the public for use. The National Library of Medicine and the U.S. Government have not placed any restriction on its use or reproduction.

*

* Although all reasonable efforts have been taken to ensure the accuracy and reliability of the software and data, the NLM and the U.S. Government do not and cannot warrant the performance or results that may be obtained by using this software or data. The NLM and the U.S. Government disclaim all warranties, express or implied, including warranties of performance, merchantability or fitness for any particular purpose.

_

* Please cite the author in any work or product based on this material.

*

*

* Authors: Anton Butanayev, Denis Vakatov, Vladimir Ivanov

END OF TERMS AND CONDITIONS

GNU

The following component is licensed under the GNU General Public V2 license:

libstdc++ Copyright (C) 1989, 1997, 1998, 1999 Free Software Foundation, Inc.

GNU General Public V2 License

GNU GENERAL PUBLIC LICENSE Version 2, June 1991 Copyright (C) 1989, 1991 Free Software Foundation, Inc. 59 Temple Place - Suite 330, Boston, MA 02111-1307, USA Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed. Preamble The licenses for most software are designed to take

away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation\'s software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too. When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things. To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it. For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights. We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software. Also, for each author\'s protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors\' reputations. Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone\'s free use or not licensed at all. The precise terms and conditions for copying, distribution and modification follow. TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION 0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The \"Program\", below, refers to any such program or work, and a \"work based on the Program\" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into

another language. (Hereinafter, translation is included without limitation in the term \"modification\".) Each licensee is addressed as \"you\". Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does. 1. You may copy and distribute verbatim copies of the Program\'s source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program. You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee. 2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions: * a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change. * b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License. * c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.) These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it. Thus, it is not the intent of this section to claim rights or contest your rights

to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program. In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License. 3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following: * a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or, * b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or, * c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.) The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable. If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code. 4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance. 5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify

or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it. 6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients\' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License. 7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program. If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances. It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice. This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License. 8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License. 9. The

Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and \"any later version\", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation. 10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally. NO WARRANTY 11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM. TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM \"AS IS\" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION, 12, IN NO EVENT UNLESS. REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER. OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. END OF TERMS AND CONDITIONS How to Apply These Terms to Your New Programs If you develop a new program, and you

want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms. To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the \"copyright\" line and a pointer to where the full notice is found. one line to give the program\'s name and an idea of what it does. Copyright (C) yyyy name of author This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version. This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details. You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place - Suite 330, Boston, MA 02111-1307, USA. Also add information on how to contact you by electronic and paper mail. If the program is interactive, make it output a short notice like this when it starts in an interactive mode: Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w\'. This is free software, and you are welcome to redistribute it under certain conditions; type `show c\' for details. The hypothetical commands `show w\' and `show c\' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w\' and `show c\'; they could even be mouse-clicks or menu items--whatever suits your program. You should also get your employer (if you work as a programmer) or your school, if any, to sign a \"copyright disclaimer\" for the program, if necessary. Here is a sample; alter the names: Yoyodyne, Inc., hereby disclaims all copyright interest in the program 'Gnomovision\' (which makes passes at compilers) written by James Hacker, signature of Ty Coon, 1 April 1989 Ty Coon, President of Vice This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License.

END OF TERMS AND CONDITIONS

OpenSSL

The following component is licensed under OpenSSL license:

OpenSSL 0.9.7b

OpenSSL License

- * Copyright (c) 1998-2008 The OpenSSL Project. All rights reserved.
- * Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:
- * 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * 3. All advertising materials mentioning features or use of this software must display the following acknowledgment:
- * "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)"
- * 4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact openssl-core@openssl.org.
- * 5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.

*

- * 6. Redistributions of any form whatsoever must retain the following acknowledgment:
- "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/)"

* THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES. INCLUDING. BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT. INDIRECT. INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

* This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

*/

Original SSLeay License

/* Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com)

* All rights reserved.

- * This package is an SSL implementation written by Eric Young (eay@cryptsoft.com).
- * The implementation was written so as to conform with Netscapes SSL.

*

* This library is free for commercial and non-commercial use as long as the following conditions are aheared to. The following conditions apply to all code found in this distribution, be it the RC4, RSA, lhash, DES, etc., code; not just the SSL code. The SSL documentation included with this distribution is covered by the same copyright terms except that the holder is Tim Hudson (tjh@cryptsoft.com).

*

- * Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed.
- * If this package is used in a product, Eric Young should be given attribution as the author of the parts of the library used.
- * This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package.

*

- * Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:
- * 1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.
- * 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * 3. All advertising materials mentioning features or use of this software must display the following acknowledgement:
- * "This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)"
- * The word 'cryptographic' can be left out if the rouines from the library being used are not cryptographic related :-).
- * 4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgement:
- * "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

*

* THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

*

* The licence and distribution terms for any publically available version or derivative of this code cannot be changed. i.e. this code cannot simply be copied and put under another distribution licence [including the GNU Public Licence.]

*/

END OF TERMS AND CONDITIONS

Zlib

The following component is licensed under zlib license:

Zlib 1.2.1

Zlib License

/* zlib.h -- interface of the 'zlib' general purpose compression library version 1.2.4, March 14th, 2010

Copyright (C) 1995-2010 Jean-loup Gailly and Mark Adler

This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

- 1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.
- 2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.
- 3. This notice may not be removed or altered from any source distribution.

Jean-loup Gailly

Mark Adler

END OF TERMS AND CONDITIONS

Curl

The following component is licensed under curl license:

Curl 7.15.1

Curl License

COPYRIGHT AND PERMISSION NOTICE

Copyright (c) 1996 - 2010, Daniel Stenberg, <daniel@haxx.se>.

All rights reserved.

Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other

dealings in this Software without prior written authorization of the copyright holder.

END OF TERMS AND CONDITIONS

Libpng

The following component is licensed under libpng license:

Libpng 1.2.37 - June 4, 2009

Libpng License

This copy of the libpng notices is provided for your convenience. In case of any discrepancy between this copy and the notices in the file png.h that is included in the libpng distribution, the latter shall prevail.

COPYRIGHT NOTICE, DISCLAIMER, and LICENSE:

If you modify libpng you may insert additional notices immediately following this sentence.

libpng versions 1.2.6, August 15, 2004, through 1.2.34, December 18, 2008, are

Copyright (c) 2004, 2006-2008 Glenn Randers-Pehrson, and are distributed according to the same disclaimer and license as libpng-1.2.5 with the following individual added to the list of Contributing Authors

Cosmin Truta

libpng versions 1.0.7, July 1, 2000, through 1.2.5 - October 3, 2002, are Copyright (c) 2000-2002 Glenn Randers-Pehrson, and are distributed according to the same disclaimer and license as libpng-1.0.6 with the following individuals added to the list of Contributing Authors

Simon-Pierre Cadieux

Eric S. Raymond

Gilles Vollant

and with the following additions to the disclaimer:

There is no warranty against interference with your enjoyment of the library or against infringement. There is no warranty that our efforts or the library will fulfill any of your particular purposes or needs. This library is provided with all faults, and the entire risk of satisfactory quality, performance, accuracy, and effort is with the user.

libpng versions 0.97, January 1998, through 1.0.6, March 20, 2000, are

Copyright (c) 1998, 1999 Glenn Randers-Pehrson, and are distributed according to the same disclaimer and license as libpng-0.96, with the following individuals added to the list of Contributing Authors:

Tom Lane

Glenn Randers-Pehrson

Willem van Schaik

libpng versions 0.89, June 1996, through 0.96, May 1997, are Copyright (c) 1996, 1997 Andreas Dilger

Distributed according to the same disclaimer and license as libpng-0.88, with the following individuals added to the list of Contributing Authors:

John Bowler

Kevin Bracey

Sam Bushell

Magnus Holmgren

Greg Roelofs

Tom Tanner

libpng versions 0.5, May 1995, through 0.88, January 1996, are Copyright (c) 1995, 1996 Guy Eric Schalnat, Group 42, Inc.

For the purposes of this copyright and license, "Contributing Authors" is defined as the following set of individuals:

Andreas Dilger

Dave Martindale

Guy Eric Schalnat

Paul Schmidt

Tim Wegner

The PNG Reference Library is supplied "AS IS". The Contributing Authors and Group 42, Inc. disclaim all warranties, expressed or implied, including, without limitation, the warranties of merchantability and of fitness for any purpose. The Contributing Authors and Group 42, Inc. assume no liability for direct, indirect, incidental, special, exemplary, or

consequential damages, which may result from the use of the PNG Reference Library, even if advised of the possibility of such damage.

Permission is hereby granted to use, copy, modify, and distribute this source code, or portions hereof, for any purpose, without fee, subject to the following restrictions:

- 1. The origin of this source code must not be misrepresented.
- 2. Altered versions must be plainly marked as such and must not be misrepresented as being the original source.
- 3. This Copyright notice may not be removed or altered from any source or altered source distribution.

The Contributing Authors and Group 42, Inc. specifically permit, without fee, and encourage the use of this source code as a component to supporting the PNG file format in commercial products. If you use this source code in a product, acknowledgment is not required but would be appreciated.

A "png_get_copyright" function is available, for convenient use in "about" boxes and the like:

```
printf("%s",png_get_copyright(NULL));
```

Also, the PNG logo (in PNG format, of course) is supplied in the files "pngbar.png" and "pngbar.jpg (88x31) and "pngnow.png" (98x31).

Libpng is OSI Certified Open Source Software. OSI Certified Open Source is a certification mark of the Open Source Initiative.

Glenn Randers-Pehrson

glennrp at users.sourceforge.net

December 18, 2008

END OF TERMS AND CONDITIONS

Kern random

The following component is licensed under kern random license:

Kern_random Copyright Theodore Ts'o, 1994, 1995. All rights reserved.

Kern-random License

- .\" This code is derived from software contributed to Berkeley by Chris Torek. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:
- .\" 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- .\" 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- .\" 3. All advertising materials mentioning features or use of this software must display the following acknowledgement:
- ."This product includes software developed by the University of California, Berkeley and its contributors.
- .\" 4. Neither the name of the University nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

.\"

." THIS SOFTWARE IS PROVIDED BY THE REGENTS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

.\"

END OF TERMS AND CONDITIONS

ConvertUTF

The following component is licensed under convert UTF license:

Convert UTF

ConvertUTF License

Copyright 2001-2004 Unicode, Inc.

Disclaimer

This source code is provided as is by Unicode, Inc. No claims are made as to fitness for any particular purpose. No warranties of any kind are expressed or implied. The recipient agrees to determine applicability of information provided. If this file has been purchased on magnetic or optical media from Unicode, Inc., the sole remedy for any claim will be exchange of defective media within 90 days of receipt.

Limitations on Rights to Redistribute This Code

Unicode, Inc. hereby grants the right to freely use the information supplied in this file in the creation of products supporting the Unicode Standard, and to make copies of this file in any form for internal or external distribution as long as this notice remains attached.

END OF TERMS AND CONDITIONS

Wchar functions

The following component is licensed under wchar functions license:

Wchar functions

Wchar functions License

.\" Copyright (c) 1990, 1991, 1993

.\"The Regents of the University of California. All rights reserved.

.\"

Copyright (c) <YEAR>, <OWNER>

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Neither the name of the <ORGANIZATION> nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE

Libjpeg

END OF TERMS AND CONDITIONS

The following component is licensed under libjpeg license:

Libjpeg

Libpeg License

This software is copyright (C) 1991-1998, Thomas G. Lane.

All Rights Reserved except as specified below.

Permission is hereby granted to use, copy, modify, and distribute this software (or portions thereof) for any purpose, without fee, subject to these conditions:

(1) If any part of the source code for this software is distributed, then this README file must be included, with this copyright and no-warranty notice unaltered; and any additions, deletions, or changes to the original files must be clearly indicated in accompanying documentation.

Third party terms

- (2) If only executable code is distributed, then the accompanying documentation must state that "this software is based in part on the work of the Independent JPEG Group".
- (3) Permission for use of this software is granted only if the user accepts full responsibility for any undesirable consequences; the authors accept NO LIABILITY for damages of any kind.

These conditions apply to any software derived from or based on the IJG code, not just to the unmodified library. If you use our work, you ought to acknowledge us.

Permission is NOT granted for the use of any IJG author's name or company name in advertising or publicity relating to this software or products derived from it. This software may be referred to only as "the Independent JPEG Group's software".

We specifically permit and encourage the use of this software as the basis of commercial products, provided that all warranty or liability claims are assumed by the product vendor.

END OF TERMS AND CONDITIONS

Appendix

Sample configuration file

```
<dhcp>TRUE</dhcp>
<manual>TRUE</manual>
            <ipAddress>192.168.100.10</ipAddress>
            <netmask>255.255.0.0</netmask>
            <gateway>192.254.100.254</gateway>
            <domainName>avaya.com</domainName>
            <dnsServer1>192.168.100.1</dnsServer1>
            <dnsServer2>192.168.100.2</dnsServer2>
   0x00 0 English FALSE TRUE TRUE FALSE TRUE FALSE
<syslogServer>syslogServer0</syslogServer>
  FALSE
              30
                    FALSE
                                86400
<groupPagingPrefix>groupPagingPrefix0</groupPagingPrefix>
  TRUE
<conferenceServerAddress>conferenceServerAddress0
conferenceServerAddress>
<mohServer>mohServer0</mohServer>
  15 FALSE application/dtmf-relay handsfree FALSE FALSE none
<natAddress>natAddress0</natAddress>
  32782
            TRUE
                      none
<callParkExtension>callParkExtension0</callParkExtension>
<callRtrvPrefix>callRtrvPrefix0</callRtrvPrefix>
  FALSE
<callPickupPrefix>callPickupPrefix0</callPickupPrefix>
 5060 5012 FALSE FALSE FALSE 101 g711ulaw TRUE US/Canada
Ringer1
```

```
<sipDialplan>sipDialplan0</sipDialplan>
 FALSE
            FALSE
<sipAutoDialUserid>sipAutoDialUserid0</sipAutoDialUserid>
         FALSE FALSE TRUE PAId-From-Contact PAId-
  FALSE
Contact-To TRUE
   <manual>TRUE</manual>
        <ntpIp>ntpIp0</ntpIp>
        <ntpIp2>ntpIp20</ntpIp2>
        +00:00 GMT London
                               TRUE
<sipRlsUri>sipRlsUri0</sipRlsUri>
     TRUE
      <intercomPrefixValue>intercomPrefixValue0</intercomPrefixValue>
<alertInfoSecret>alertInfoSecret0</alertInfoSecret>
      15
proxyAddress>proxyAddress0/proxyAddress>
proxyPort>5060
FALSE
proxyAddress1>proxyAddress1>
proxy1Port>5060/proxy1Port>
    <!--<autoconfig>
           <autoConfigAddress>autoConfigAddress0</autoConfigAddress>
           <autoConfigHttpProxy>autoConfigHttpProxy0
            autoConfigHttpProxy>
           <autoConfigHttpPort>8080</autoConfigHttpPort>
           <autoConfigProfile>Profile-C</autoConfigProfile>
           <autoConfigPath>Avaya/config</autoConfigPath>
           <autoConfigEveryBoot>TRUE</autoConfigEveryBoot>
    </autoconfig>
<authname>authname0</authname>
```

```
<authPassword>authPassword0</authPassword>
<authId>authId0</authId>
<displayname>displayname0</displayname>
  FALSE
          FALSE
<mwiReqUri>mwiReqUri0</mwiReqUri>
<accProxyAddress>accProxyAddress0</accProxyAddress>-->
<accProxyPort>5060</accProxyPort>
<voiceMailServerAddress>voiceMailServerAddress0
voiceMailServerAddress>
   <registrarAddress>registrarAddress0</registrarAddress>
        FALSE 3600 TRUE FALSE FALSE FALSE 20
   <callForwardAddress>callForwardAddress0</callForwardAddress>
<authname>authname1</authname>
<authPassword>authPassword1</authPassword>
<authId>authId1</authId>
<displayname>displayname1</displayname>
      FALSE FALSE
<mwiRegUri>mwiRegUri1</mwiRegUri>
      1
<accProxyAddress>accProxyAddress0</accProxyAddress>
<accProxyPort>5060</accProxyPort>
```

```
<voiceMailServerAddress>voiceMailServerAddress1/
```

<registrarAddress>registrarAddress1</registrarAddress>

FALSE 3600 TRUE FALSE FALSE FALSE 20

<callForwardAddress>callForwardAddress1</callForwardAddress>

<authname>authname2</authname>

<authPassword>authPassword2</authPassword>

<authId>authId2</authId>

<displayname>displayname2</displayname>

FALSE FALSE

<mwiReqUri>mwiReqUri2</mwiReqUri>

1

<accProxyAddress>accProxyAddress2</accProxyAddress>

<accProxyPort>5060</accProxyPort>

<voiceMailServerAddress>voiceMailServerAddress2//
voiceMailServerAddress>

<registrarAddress>registrarAddress2</registrarAddress>

FALSE 3600 TRUE FALSE FALSE FALSE 20

<callForwardAddress>callForwardAddress2</callForwardAddress>

<authname>authname3</authname>

<authPassword>authPassword3</authPassword>

<authId>authId3</authId>

<displayname>displayname3</displayname>

FALSE FALSE

<mwiReqUri>mwiReqUri3</mwiReqUri>

1

<accProxyAddress>accProxyAddress3</accProxyAddress>

<accProxyPort>5060</accProxyPort>

<voiceMailServerAddress>voiceMailServerAddress3/

<registrarAddress>registrarAddress3</registrarAddress>

FALSE 3600 TRUE FALSE FALSE FALSE 20

<callForwardAddress>callForwardAddress3</callForwardAddress>

<authname>authname4</authname>

<authPassword>authPassword4</authPassword>

<authId>authId4</authId>

<displayname>displayname4</displayname>

FALSE FALSE

<mwiReqUri>mwiReqUri4</mwiReqUri>

1

<accProxyAddress>accProxyAddress4</accProxyAddress>

<accProxyPort>5060</accProxyPort>

<voiceMailServerAddress>voiceMailServerAddress4//
voiceMailServerAddress>

<registrarAddress>registrarAddress4</registrarAddress>

FALSE 3600 TRUE FALSE FALSE FALSE 20

<callForwardAddress>callForwardAddress4</callForwardAddress>

<authname>authname5</authname>

<authPassword>authPassword5</authPassword>

<authId>authId0</authId>

<displayname>displayname5</displayname>

FALSE FALSE

<mwiReqUri>mwiReqUri5</mwiReqUri>

1

<accProxyAddress>accProxyAddress5</accProxyAddress>

<accProxyPort>5060</accProxyPort>

<voiceMailServerAddress>voiceMailServerAddress5/
voiceMailServerAddress>

<registrarAddress>registrarAddress5</registrarAddress>

FALSE 3600 TRUE FALSE FALSE FALSE 20

<callForwardAddress>callForwardAddress5</callForwardAddress>

<authname>authname6</authname>

<authPassword>authPassword6</authPassword>

<authId>authId6</authId>

<displayname>displayname6</displayname>

FALSE FALSE

<mwiReqUri>mwiReqUri6</mwiReqUri>

1

<accProxyAddress>accProxyAddress6</accProxyAddress>

<accProxyPort>5060</accProxyPort>

<voiceMailServerAddress>
voiceMailServerAddress>

<registrarAddress>registrarAddress6</registrarAddress>

FALSE 3600 TRUE FALSE FALSE 520

<callForwardAddress>callForwardAddress6</callForwardAddress>

<authname>authname7</authname>

<authPassword>authPassword7</authPassword>

<authId>authId0</authId>

<displayname>displayname7</displayname>

FALSE FALSE

<mwiReqUri>mwiReqUri7</mwiReqUri>

1

<accProxyAddress7</accProxyAddress7

<accProxyPort>5060</accProxyPort>

<voiceMailServerAddress>voiceMailServerAddress7/

<registrarAddress>registrarAddress7</registrarAddress>

FALSE 3600 TRUE FALSE FALSE FALSE 20

```
<callForwardAddress>callForwardAddress7</callForwardAddress>
<authname>authname8</authname>
<authPassword>authPassword8</authPassword>
<authId>authId8</authId>
<displayname>displayname8</displayname>
      FALSE FALSE
<mwiReqUri>mwiReqUri8</mwiReqUri>
     1
<accProxyAddress>accProxyAddress8</accProxyAddress>
<accProxyPort>5060</accProxyPort>
<voiceMailServerAddress>voiceMailServerAddress8
voiceMailServerAddress>
     <registrarAddress>registrarAddress8</registrarAddress>
        FALSE 3600 TRUE FALSE FALSE 520
   <callForwardAddress>callForwardAddress8</callForwardAddress>
<authname>authname9</authname>
<authPassword>authPassword9</authPassword>
      <authId>authId9</authId>
<displayname>displayname9</displayname>
      FALSE FALSE
<mwiReqUri>mwiReqUri9</mwiReqUri>
```

1

<accProxyAddress>accProxyAddress9</accProxyAddress>

<accProxyPort>5060</accProxyPort>

<voiceMailServerAddress>voiceMailServerAddress9/
voiceMailServerAddress>

<registrarAddress>registrarAddress9</registrarAddress>

FALSE 3600 TRUE FALSE FALSE FALSE 20

<callForwardAddress>callForwardAddress9</callForwardAddress>

Terms you should know

Avaya Communication Server 1000

Your office communication system.

Calling Party Name Display

Information appearing on the LCD display screen, such as the caller's name and phone number. The system must have CPND enabled.

Category 5 (Cat5)

Cable and associated connecting hardware capable of transmitting at speeds up to 100 MHz, used by 10BaseT, 100BaseT4, 100BaseTX.

Category 5e (Cat5e)

Most Cat5 cable manufactured after 1996 also supports 1000BaseT (GigE) installations, and is designated Cat 5e. Cat5e cable normally has four pairs of copper wire.

Category 6 (Cat6)

Cable and associated connecting hardware capable of transmitting at speeds up to 200 MHz. Designed specifically to support 1000BaseT (GigE), it is also compatible with 10BaseT, 100BaseT4, and 100BaseTX installations. The cable normally has four pairs of copper wire.

Cradle

The depression in the base of your telephone where the handset is placed when not in use.

Date/time display

The current date and time when the IP Deskphone is in an idle state.

DHCP Server

A service provided by a device on the network that assigns network addresses to other devices, such as your telephone and computer.

Directory Number (DN)

A number consisting of one to seven digits for an IP Deskphone, and also known as an extension number.

Feature display

An area that shows status information about the feature in use. It also displays the name and status of the active session.

Feature Status Lamp indicator

An LCD or an LED that indicates a data message, contact, or feature status by a flash, wink, steady on, or off.

Fixed key

The hard-labeled keys on your IP Deskphone.

Flexible Feature Codes (FFCs)

Specialized codes entered using the dialpad that enable features (for example, Ring Again).

Goodbye key

A fixed key used to end an active call.

Idle

The phone is in idle mode when handset is on the cradle, your telephone is not in speakerphone mode or headset mode, and there are no incoming calls. In idle mode, the LCD displays Date and Time along with soft keys and registered line keys.

Indicator

An LCD or an LED that indicates the status of a feature by the flash, wink, steady on, or off.

Information display

Any display of call activity, lists, prompts, and status of calls. If the text message exceeds the available display area, a scroll arrow icon indicates that you must use the scroll keys to view the remaining text.

Interrupted dial tone

A broken or pulsed dial tone that sounds when you access some features on your IP Deskphone.

IM

Instant Message

ΙP

Internet Protocol

LCD

Liquid Crystal Display

LED

Light Emitting Diode. A semiconductor used as a visual indicator.

Message/Inbox

A fixed key on your Avaya 1230 IP Deskphone that connects to your voice messaging system when the key is pressed.

Navigation keys

Keys used to scroll through menus and lists appearing on the LCD display screen.

Network Address

IP address. Uniquely identifies a device on the network. Used for routing information to that device.

Off-hook

Any line selected to make a call or receive a call. The term *off-hook* is applied whether (a) the end user lifts up the handset, (b) the end user presses a line key, (c) the call is automatically answered at the IP Deskphone, or (d) a line is automatically selected for an outgoing call.

Paging tone

A special tone (two beeps followed by dial tone) that sounds when you use the Radio Paging feature.

Primary Line

The first line to be registered by the user is the primary line that is assigned to the Line key at the bottom right of your phone's LCD

Power-Over-Ethernet

Provides power over the network cable that is also used for data communications.

Registrar

See SIP registrar

Ringback/ring tone

A sound indicating that a call you have made is ringing at its destination.

Services key

A fixed key used to access options such as Telephone Options, Password Admin, Virtual Office Login, Virtual Office Logout, Test Local Mode, and Resume Normal Mode.

Shared Directory Number

A DN (extension) that is shared by two or more persons.

Special Prefix code (SPRE)

Special codes entered using the dialpad, followed by a two-digit access code, that enable features (for example, Call Forward All Calls requires entry of SPRE code + 74).

Soft keys

A set of keys programmed by your system administrator. These four keys, directly below the display area, have four programmable layers. These keys are also used to configure parameters in the **Telephone Options** menu.

Speakerphone Mode

The speaker and microphone in the base are in use instead of the equivalent components in the handset or headset.

Special dial tone

The three consecutive tones followed by dial tone that you hear when accessing IP Deskphone features.

Station Control Password (SCPW)

Enables security features on your phone to prevent others from making calls from your IP Deskphone and to prevent access to protected features (for example, Remote Call Forward).

Status Messages

A message displayed to inform the user of important information. A right arrow appears if more than one Status Message is present. Examples of Status Messages include: Message Waiting, All Lines Forwarded to: 6453, Do Not Disturb On, Ring Again active, and Ringer is OFF.

System or Switch

Your office communication system.

Switchhook

A button on which the handset presses down, disconnecting your call when you replace the handset. The handset (when lifted) releases the switchhook, and you either answer a call or you receive a dial tone to make a call.

User interface

Screen displays that interact with the end user as a result of an action or event.

Visual Alerter/Message Waiting indicator

An LCD or an LED that flashes to indicate that a message is waiting or when the ringer is on.

VoIP

Voice over Internet Protocol. This is a telephone technology where voice and control signals are transmitted over an IP, or Internet Protocol, packet-switched network. This makes more efficient use of network resources and allows more sophisticated features than traditional telephone technology, where audio is transmitted over a circuit-switched network.

Index

Α

About the Avaya 2004 IP
Deskphone 203
Accessing display diagnostics 49
Accessory Expansion Module 13
Adjusting volume 44
Answering a call 109
Applications 29
Area Code setup 55
AutoDial Transfer 149
Automatic Wake-Up 134
Avaya 1200 IP Deskphone
Expansion Module 165

В

Buzz signal 155

Call Detail Recording 154
Call Page Connect 142
Call party information 203
Call Pickup 110
Call Trace 151
Camp-on, Forced 146
CAT5e 39
Changing feature key labels 61
Charge a call or charge a forced call 149
Conference 29
Conference call 127
Configuring an Electronic Lock on

your IP Deskphone 70

Configuring Call log options 52
Configuring Live Dialpad 64
Configuring New Call Indication 53
Configuring Preferred Name Match 54
Configuring the Area Codes 55
Configuring the Callers List log 52
Configuring the Local Tools Menu 77
Configuring the name display format 63
Context-sensitive soft keys 26
Corporate Directory 99
Customizing the Personal

D

Directory 72

Date/time display 203
Directory key 30
Directory Number 204
disconnect a conferee 129
Display incoming calls 120
Display Network Diagnostics
Utilities 32
Displaying call details 120
DN 204

Ε

Electronic Lock 70
Enabling OnHook Default Path 61
Enabling or disabling Call Timer 60
Enhanced Override 148

Enter key 28 Entering and editing text 89 Ethernet ports 13 **Expansion Module 165**

F

Feature display 204 Fixed key 204 Flexible Feature Code (FFC) 163, 204

G

Getting started 25 Goodbye key 29, 204

н

Headset key 29 Hold key 28 Hotel applications 134 HotLine 107

Indicator status 205 Information display 205 Installing your Avaya 1230 IP Deskphone 35 Interrupted dial tone 205

L

Last Number Redial 105 LCD Expansion Module 165 Line (DN) key 26 Local Area Network (LAN) 11 Local Diagnostics 82 Local Dialpad Tone 49

Logging off Virtual Office 87 Logging on to Virtual Office 84

M

Maid Identification 138 Making a call 90 Managing calls during a call 112 Managing calls while away from your desk 121 Managing calls while busy at work 132

Managing calls while not on a call

Managing multiparty calls 127 Managing your Station Control Password 68 Meet - me page 143 Message (Inbox) key 30, 205 Message Registration 136 Message waiting indicator 208 Miscellaneous Call Features 150 More key 26 Mute key 27 Muting a handsfree call 98

Ν

Navigation keys 28, 205

0

Off-hook 206 On-hook dialing 96 Override a busy signal 142

P

Paging tone 206

Password Admin 32
Performing Diagnostics 51
Placing a call on hold 113
Power over Ethernet 13
Privacy Release 156

Q

Quit key 29

R

Radio Page 142
Redial 30
Regulatory and safety information 15
Retrieving a call on hold 113
Ringback/ring tone 206

S

Room Status 140

Switchhook 208

Second Page functionality 12
Selecting a language 46
Selecting a local dialpad tone 49
Self-labeled line/programmable
feature keys 26
Services key 31, 206
Shared Directory Numbers 207
Soft keys (self-labeled) 207
Speaker key 28
Special dial tone 207
Special Prefix code (SPRE) 207
Station Control Password (SCPW) 207
Status Messages 207

Switching from handset mode to handsfree 98 Switching from handsfree to handset mode 98 Switching from handsfree to headset 99 System or Switch 208

Т

Telephone Options 31
Terminating a handsfree call 97
Tracing Calls 150
Transferring a Call 114

U

User Interface 208

Using a headset 98 Using Attendant Recall 117 Using AutoDial 102 Using Automatic Answerback 109 Using Call Forward 121 Using Call Hold 112 Using Call Join 127 Using Call Park 117 Using Call Pickup 110 Using Call Waiting 113 Using Centrex Services 149 Using Conferee Selectable Display 129 Using Group Call 130 Using Handsfree dialing 97 Using HotLine 107 Using Intercom calling 108 Using Internal Call Forward 123 Using Last Number Redial 105

Using Make Set Busy 132

Using Off-hook dialing 95

Using On-hook dialing 96

Using Predial 101

Using Remote Call Forward 125

Using Ring Again 104

Using Speed Call 106

Using System Speed Call 107

Using the Callers List 91

Using the Corporate Directory 99

Using the Redial List 93

Using the soft keys 89

Using the telephone dialpad 89

Using Timed Reminder Recall 115

Using Virtual Office 83

Using Virtual Office on your office

IP Deskphone 87

Using Virtual Office on your Remote IP Deskphone 86



Viewing IP Deskphone information 50

Voice Call 145

Volume control bar 27