

Using an Electronic Hookswitch (EHS) with Polycom SoundPoint IP and VVX 1500 Phones

This technical bulletin shows system administrators and end users how to use an electronic hookswitch with Polycom SoundPoint IP phones and VVX 1500 Business media phones.

This technical bulletin applies to:

- SoundPoint IP phones running SIP software version 3.0 or later and BootROM 4.1.0 or later.
- Polycom VVX 1500 phones running SIP software version 3.1.2 Rev.B or later and BootROM 4.1.2 or later.
- SoundPoint IP 321/331 phones running SIP software version 3.1.2 Rev.C or later.
- SoundPoint IP 335 phones running SIP software version 3.1.2 Rev.B or later.

This technical bulletin is up-to-date for UC Software version 3.3.2.

Introduction

Some headsets enable you to answer and end phone calls using controls located on the headset. This feature is called electronic hookswitch (EHS). To use it, your headset must include a digital serial control interface in addition to the standard analog headset jack (RJ-9) interface. The serial control interface requires an EHS adapter that you can purchase from your headset manufacturer.

Headsets that support EHS come with a base unit that connects to your phone. The base unit and the headset connect wirelessly. This enables you to use your headset even if you're some distance away from your phone. Most headsets enable you to work wirelessly up to 300 feet (91 meters) from your phone and still use the electronic hookswitch controls. Check with your headset user guide for the precise range restrictions.

The headsets listed next support electronic hookswitch on SoundPoint IP phone models 320, 321, 330, 331, 335, 430, 450, 550, 560, 650, and VVX 1500 phones.



Note: Required Headset Adapter for SoundPoint IP 320, 321, 330, and 331 Phones

To use analog headsets with SoundPoint IP phone models 320, 321, 330, and 331, you will need an RJ-9 (direct connect) to 2.5 mm headset adapter. Polycom offers adapters in packs of five, valid for use worldwide (Polycom SKU 2200-11095-002).

Headsets compatible with SIP software version 3.0 or later:

- Jabra GN9120 / Jabra GN9125
- Jabra GN9300e Series (GN9330e, GN9350e)

- Jabra GN9350
- Jabra GO 6400 Series
- Jabra PRO 9400 Series

To use a Jabra headset with EHS, you will need a Jabra EHS adapter (GN Netcom SKU 14201-17).

Headsets compatible with SIP software version 3.1 or later:

- Plantronics Savi Office Series (WO100, WO200, WO300, WO350 only)
To use a Savi Office series headset with EHS, you will need a Plantronics APP-50 cable (Plantronics SKU 38439-01).
- Plantronics CS Series (50, 55, 60, 70N, 261N, 351N only)
- To use a CS series headset with EHS, you will need a Plantronics APP-5 cable (Plantronics SKU 38438-01).

Headsets compatible with UC Software version 3.3.1 or later:

- Sennheiser DW Series (Office, Pro 1, Pro 2)
To use a Sennheiser headset with EHS, you will need a Sennheiser EHS Polycom adapter (Sennheiser part number CEHS-PO 01).



Note: Using Sennheiser Headsets with the SoundPoint IP 430 Phone

The SoundPoint IP 430 phone is not supported by UC Software version 3.3.0 or later. As a result, Sennheiser phones are not officially compatible with the IP 430.

Configuring Headset Options

Before you start using your headset, you need to configure certain options on your headset base unit and on your phone. The following section details when and how to set these options.

Setting the Headset Base Unit Options

Before you connect your headset to your phone, be sure to set the following options on your specific headset base unit model:

- For Jabra headsets, change the headset mode to **DHSG** on the headset base unit. For details, refer to your headset documentation or contact Jabra support.

- For Plantronics headsets, change the coarse receive level to **3** and the transmit level to **B** on the headset base unit. Refer to the *Universal EHS Adapter Getting Started* guide packed in the headset box for more details.
- For Sennheiser headsets, set the first DIP switch - labeled **1** (DHSB) - to the down position on the back of the headset base unit. See, how to connect a Sennheiser headset for more information. For details, refer to your headset documentation or contact Sennheiser support.

Setting the Phone Analog Headset Options

You may set the phone analog headset option locally through the phone or using configuration files administered from a central provisioning server.

Set the option through the phone if you meet *any* of the following criteria:

- You are not the system administrator of your phone.
- You only wish to configure a small number of phones, which you have physical access to.
- Your phone is not deployed from a central provisioning server.

Set the option by applying configuration files from a central provisioning server if you meet *all* the following criteria:

- You are the system administrator.
- Your network has multiple phones deployed from a central provisioning server.
- You wish to set the analog headset option for multiple phones, using either the same configuration or a different configuration for each phone.

Depending on your requirements, you can follow one of the two procedures listed next to set the analog headset option.

To set the analog headset option on your phone:

- 1 Navigate to the **Analog Headset** menu (**Menu > Settings > Basic > Preferences > Headset > Analog Headset**).
- 2 Select the appropriate headset mode:
 - Choose **Regular Mode** (default) if no compatible headset is attached.
 - Choose **Jabra DHSB** if an EHS compatible Jabra headset is attached with an EHS cable or adapter.
 - Choose **Plantronics Mode** if an EHS compatible Plantronics headset is attached with an EHS cable or adapter.
 - Choose **Sennheiser Mode** if an EHS compatible Sennheiser headset is attached with an EHS cable or adapter.

**Troubleshooting: My Phone Doesn't Have a Sennheiser Mode Menu Selection**

If your phone does not have a menu selection for **Sennheiser Mode**, select **Jabra DHSG** instead.

To set the analog headset option by applying configuration files from a central provisioning server (system administrators only):

- 1** Depending on your phone's software version, open one of the following configuration files for editing using an XML editor such as XML Notepad (recommended).
 - For UC Software version 3.3.0 or later, open **reg-advanced.cfg** and navigate to the `<up>` attribute.
 - For SIP software version 3.2.x or earlier, open **phone1.cfg** and navigate to the `<user_preferences>` attribute.
- 2** Set the `up.analogHeadsetOption` parameter to **0** (default), **1**, **2**, or **3**.
 - Choose **0** if no compatible headset is attached.
 - Choose **1** if an EHS compatible **Jabra** headset is attached with an EHS cable or adapter.
 - Choose **2** if an EHS-compatible **Plantronics** headset is attached with an EHS cable or adapter.
 - Choose **3** if an EHS-compatible **Sennheiser** headset is attached with an EHS cable or adapter.

**Troubleshooting: My Sennheiser Headset Won't Connect**

If your phone is installed with UC Software version 3.3.1 or earlier and you wish to connect a Sennheiser headset, you must set the `up.analogHeadsetOption` parameter to **1**.

- 3** Enter the name of the configuration file you edited (`reg-advanced.cfg` or `phone1.cfg` by default) next to the CONFIG_FILES section of one of the master configuration files:
 - Use the **000000000000.cfg** master configuration file if you wish to apply your changes to all phones on your network.
 - Use the **<MAC-address>.cfg** master configuration file if you wish to apply your changes to the single phone with that MAC address.

**Admin Tip: Using Master Configuration Files**

Each phone on your network will use the **000000000000.cfg** master configuration file unless the phone's **<MACaddress>.cfg** master configuration file also exists on the network.

To force a phone to use the **000000000000.cfg** file, remove the phone's **<MACaddress>.cfg** file from your provisioning server.

- 4 On your phone, navigate to **Menu > Settings > Basic** and select one of the following options depending on your phone's software version:
 - For UC Software version 3.3.0 or later, select **Update Configuration**.
Your phone's configuration will be updated.
 - For SIP Software version 3.2.x or earlier, select **Restart Phone**.
Your phone will restart.

Connecting and Disconnecting your Headset

This section describes the procedure for connecting or disconnecting your headset and your phone. Before you connect or disconnect your headset, be sure to set the options that apply to your headset, as described in the two preceding sections. The electronic hookswitch may not work if the options are not set, or are set incorrectly.

Connecting your Headset

If you have an EHS-compatible headset and headset adapter, follow the steps listed next to connect your headset to your phone.

To connect a supported headset to your phone (as shown in figures 1, 2, and 3):

- 1 Plug one end of the EHS adapter or cable into the serial port on the back of your phone.
- 2 Plug the other end into the headset base unit.
- 3 Connect the headset's RJ-9 connector to the headset jack on the back of the phone (with an RJ-9 to 2.5 mm adapter for SoundPoint IP phone models 320, 321, 330, and 331 phone (see *Introduction*)).

Figure 1: Connecting a Jabra Headset

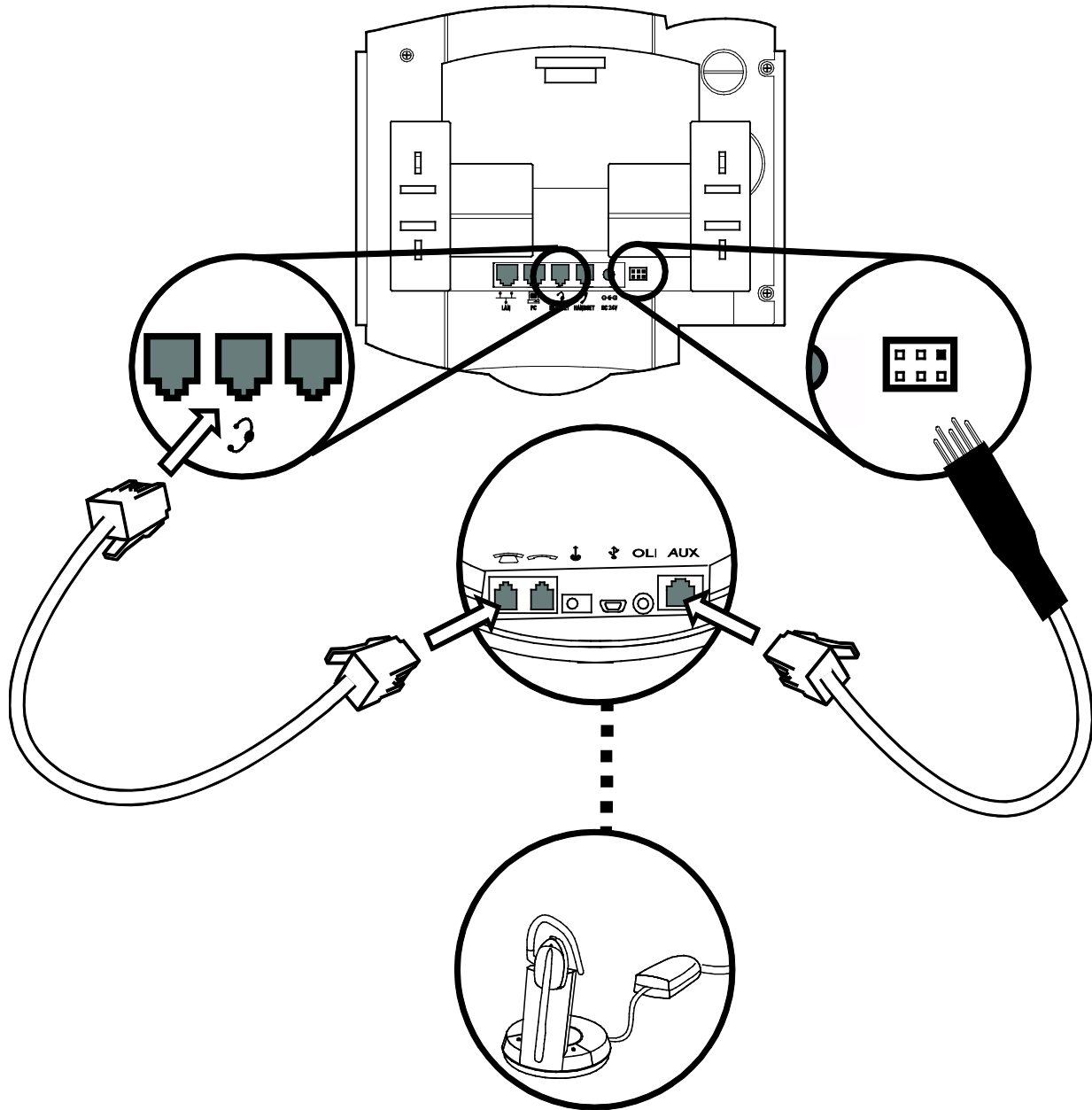


Figure 2: Connecting a Plantronics Headset

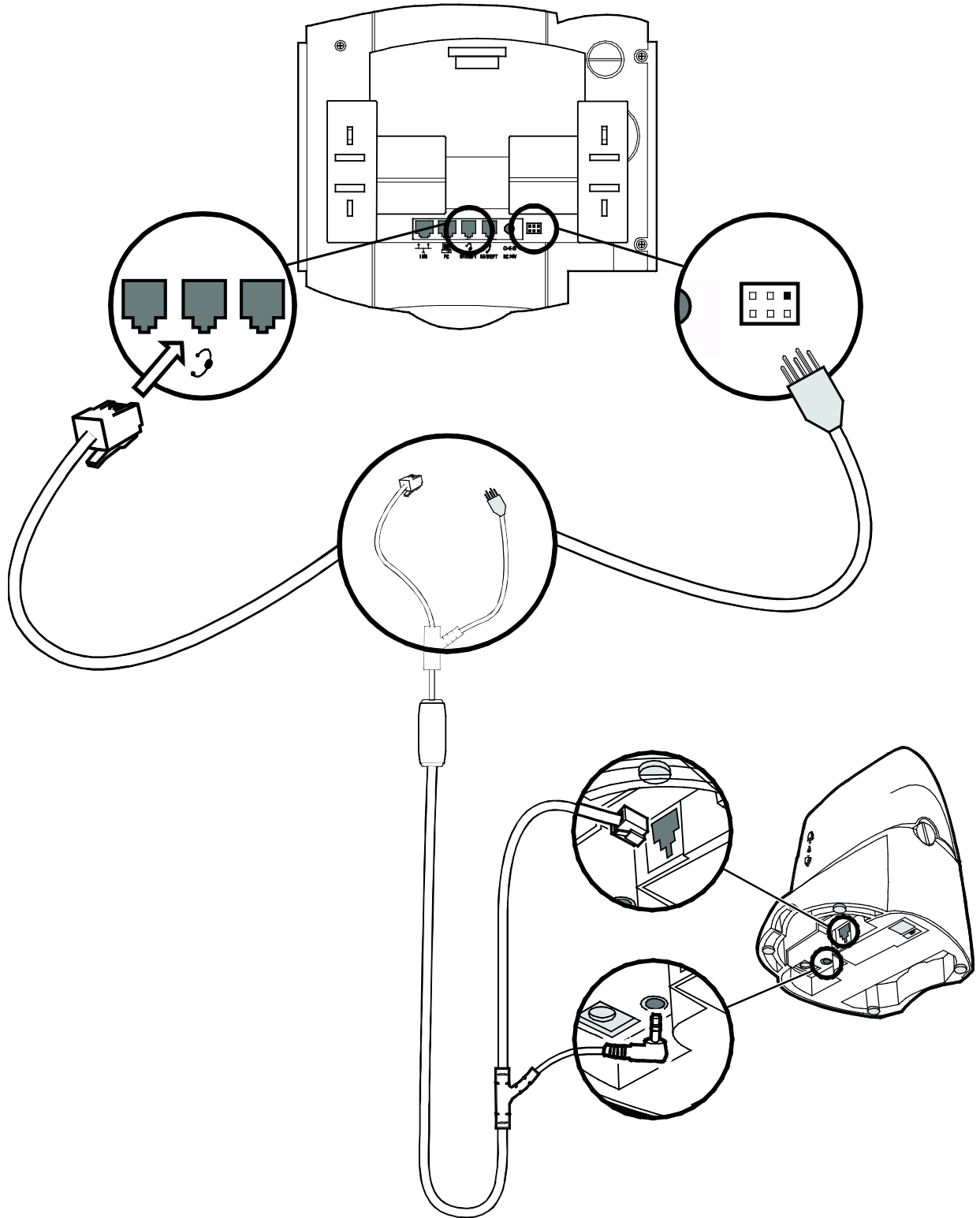
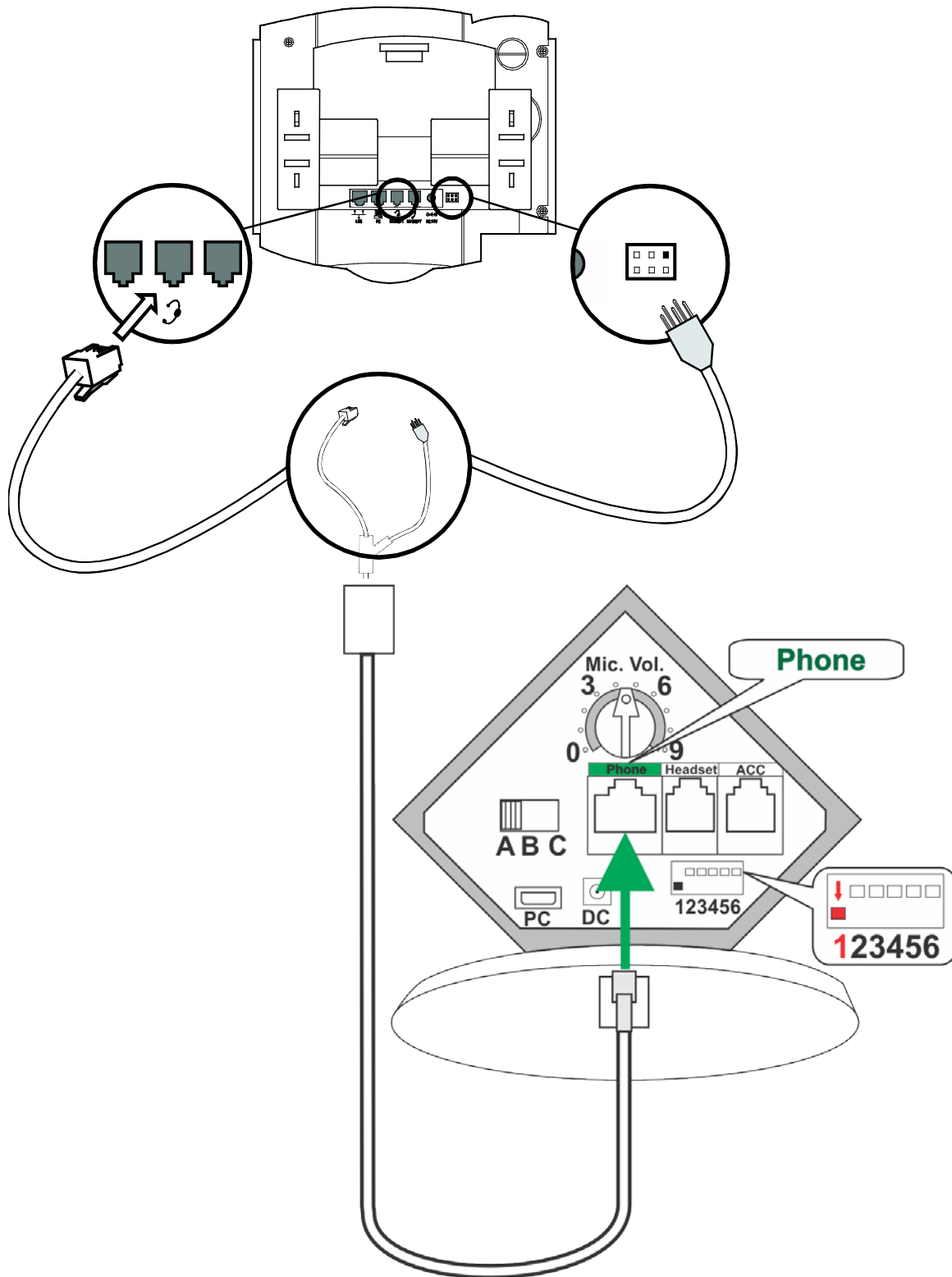


Figure 3: Connecting a Senheiser Headset



Disconnecting or Changing your Headset

You will need to properly detach your headset from your phone if you wish to stop using it or if you would like to switch to a different supported headset. Follow the procedure described next to properly disconnect your headset.

To disconnect a headset:

- 1 Change the phone Analog Headset option to **Regular Mode** using a provisioning server or using the Analog Headset menu (see Setting the Phone Analog Headset Options)
- 2 Remove the EHS adapter from the serial port on the back of the phone.

Using your Headset

This section provides supplementary information to the SoundPoint IP and VVX 1500 user guides, which are available at <http://www.polycom.com/support/voice/>. Once your headset is connected, you can begin to use the electronic hookswitch to perform call functions wirelessly using your headset controls. Depending on your call environment, you may also wish to enable the echo cancellation feature.

Placing, Answering, and Ending Calls from your Headset

Press the electronic hookswitch control on your headset to answer or end calls. Some headsets may also have controls to place calls on hold or switch between line appearances. Consult your headset user guide for more information.

When you are in an active call and you receive an incoming call, pressing the hookswitch control on the headset will hang up the current (active) call. To place the existing call on hold and switch to the incoming call, use the Hold key on your phone (refer to your phone's User Guide).

Enabling Echo Cancellation to Troubleshoot Echo Issues

In some cases when you are using your headset, the people that you call may experience audio or echo issues - such as feedback of your voice or of their own voice - during the call. SIP software versions 3.1.1 and later support an Echo Cancellation feature to manage this feedback. If people that you call hear an echo while you are talking to them using your headset, you should enable echo cancellation on your phone (as described next). If you are using a software version before SIP 3.1.1, contact your system administrator.

To enable echo cancellation on your phone:

- 1 Navigate to the Echo Cancellation menu: **Menu > Settings > Basic > Preferences > Headset > Echo Cancellation**.
- 2 Select **Enabled** and press the **Select** soft key.

To disable echo cancellation, navigate to the **Echo Cancellation** menu, shown in step 1, and select **Disabled**.



Troubleshooting: If you Hear Echo with Echo Cancellation Enabled

If people you call continue to hear an echo after you have enabled echo cancellation, or if your phone is not running SIP software version 3.1.1 or later, ask your system administrator to contact Polycom Support for further troubleshooting options.

If you would like more information about one of the headsets listed in this document, you can visit one of the manufacturer's Web sites:

- [Jabra Headset Solutions](http://www.jabra.com/na-us/headsetsolutions/pages/allproducts.aspx)
<http://www.jabra.com/na-us/headsetsolutions/pages/allproducts.aspx>
- [Plantronics Enterprise Headsets](http://www.plantronics.com/north_america/en_US/products/office)
http://www.plantronics.com/north_america/en_US/products/office
- [Sennheiser Headsets](http://www.senncom.com/comm/home_en.nsf/root/headsets)
http://www.senncom.com/comm/home_en.nsf/root/headsets

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