



Avaya 96XX Series IP Deskphone, H175 Video Collaboration Station, Vantage™ and J100 Series IP Phones Headset Profiles

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1. Introduction

Headset technology has significantly evolved over the years to include Wideband audio performance, wireless transmission methods such as DECT™ or Bluetooth®, active noise cancelling as well as integrated signaling methods. Each individual vendor attempts to design a product that will provide good acoustic performance when connected to many different phone types.

At Avaya, audio quality is important to us. Our research has shown that with such a variety of headset technologies, the best level of audio quality is achieved through customized headset audio tunings developed in partnership with headset vendors.

2. Headset Profiles Feature

Beginning with the Avaya one-X® Deskphone SIP 6.3 release of software which operates on the 9601/9608/9611G/9621G/9641G phones, and continuing development with the H175 Video Collaboration Station, Avaya Vantage™ and J100 Series IP products, Avaya has introduced the concept of "Headset Profiles". These headset profiles are the result of extensive acoustic lab testing and development in partnership with headset vendors to ensure that the acoustic performance of the endpoint and a vendor's headset are ideally configured to provide a best-in-class audio experience.

Headset Profile Development

Headset Profiles for wired, USB and Bluetooth devices are developed during testing by Avaya and headset vendors in partnership with the [Avaya DevConnect Program](#). DevConnect Application Notes as well as the headset Vendor user guides should be consulted for cabling and configuration of the headsets.

Headset Connection Options

Avaya Endpoints often support a variety of headset connection options such as a standard 4-wire connectivity to the headset jack (all 96XX, H175, J100 and K165/K175 models), Bluetooth® (9641G, H175 and K165/K175 models) and USB (H175 model).

When a headset is paired via Bluetooth® or plugged in via USB, the endpoint is able to determine the vendor and model of headset that is being used and apply the appropriate gain and equalization automatically.

If the headset is connected to the standard 4-wire headset connector, the Headset Profile can be set by your Administrator or selected by the end user.

Wired Headset Profile Section

The wired Headset Profile feature on the **9601/9608/9611G/9621G/9641G** IP Deskphones running SIP can be found at the following menu location:

Home (Settings) -> Options & Settings -> Advanced Options -> Headset Profile

The Headset Profile feature on the **H175 Video Collaboration Station** can be found at the following location:

Home -> Settings ("gear" symbol) -> Call Settings -> Headset Profile

The Headset Profile feature on the **Avaya Vantage™** can be found via:

Settings -> Audio Settings -> Headset Profile

The Headset Profile feature on the **J100 Series IP Phone** is located at:
Settings -> Audio -> Headset Profile

By default the Headset Profile menu list names are "Profile 1", "Profile 2", "Profile 3" etc. with the default being Profile 1. A system administrator can customize this list to provide specific headset model names so it is easier for end users to identify which Profile to select from the menu.

In the 46xxsettings.txt file that is obtained by the endpoint during boot, the following parameters are available:

SET HEADSET_PROFILE_DEFAULT "1"

If HEADSET_PROFILE_DEFAULT is **not** configured the default is 1. The range for the default value is 1 through 8.

SET HEADSET_PROFILE_NAMES "name1,name2,name3,name4,name5,name6,name7,name8"

There are 8 different profiles that can be named or left blank.

Example 46xxsettings.txt file usage:

SET HEADSET_PROFILE_DEFAULT "1"

SET HEADSET_PROFILE_NAMES "Default,HW251N,HW291N,VXI4010,GN2000,PRO9470,SAVIW730,DWOffice"

Please note that Profiles 6, 7 and 8 are designed to work with wireless headsets that have active audio processing in the headset itself. When these particular profiles are selected, sidetone is turned off on the endpoint. The volume control on the endpoint is also disabled when these profiles are being used, and the volume control on the headset itself must be used to adjust receive audio levels. Disabling the phone volume control ensures the optimal signal to noise performance.

During initial configuration some wireless headsets will perform an automated test and adjust audio levels to match the characteristics of the associated phone. After making changes to the Headset Profile it is therefore advisable to review and re-run the configuration of the wireless headset as per the vendor instructions. If the headset has selectable settings for Narrowband or Wideband audio capability, select Wideband if Wideband codecs are used in your VoIP network and if your DECT™ or Bluetooth® wireless spectrum has the capacity for the required radio bandwidth.

3. Compatibility Table

The table below will be updated as additional testing is completed by headset vendors in partnership with the [Avaya DevConnect Program](#). DevConnect Application Notes as well as the headset Vendor user guides should be consulted for cabling and configuration of the headsets.

Headset Profile	Vendor	Model (Cable)	Configuration Notes
1	Avaya (Default)	Avaya L119 (integrated RJ9) Avaya L129, L139 and L149 (RJ9 Quick Disconnect cable 700514324)	Profile 1 is equivalent to the headset tuning of the Avaya one-X® Deskphone H323 software.
2	Plantronics	SupraPlus® Wideband HW251N/HW261N (HIS)	-
2	Sennheiser	SH 330/SH 350, CC 510/CC 550 (CAVA-31)	Foam ear cushions recommended (see note below).
3	Plantronics	EncorePro® HW291N/HW301N (HIS)	-
3	Sennheiser	Circle™ SC 230/260 (CAVA-31)	-
4	Jabra	BIZ™ 2400 (GN1216)	Model 2486-820-104 tested using GN1216 cable setting of 5.
4	Sennheiser	Century™ SC 630/660 (CAVA-31)	-
4	VXI	CC Pro™ 4010V DC, CC Pro™ 4021V DC (OmniCord-V)	OmniCord cable on setting 2
5	Jabra	GN2000 (GN1216)	Model 2003-820-104 tested using GN1216 cable setting of 5.
6	Jabra	PRO™ 9470 (14201-33)	Microphone TX Level 7
7	Plantronics	CS500™ Series: CS510, CS520, CS530, CS540 (APV-63)	96x1 SIP R6.3.0: Base Configuration: “Speaking Volume” and “Listening Volume” at 3 “Configuration Switch” at position A 96x1 SIP R6.3.1 and newer Base Configuration for all supported Avaya products: “Speaking Volume” and “Listening Volume” at 2 “Configuration Switch” at position A
7	Plantronics	Savi® 700 Series: W710, W720, W730, W740, W745 (APV-63)	96x1 SIP R6.3.0: Base Configuration: “Speaking Volume” and “Listening Volume” at 3 “Configuration Switch” at position A 96x1 SIP R6.3.1, and newer Base Configuration for all supported Avaya products: “Speaking Volume” and “Listening Volume” at 2 “Configuration Switch” at position A
8	Sennheiser	DW Pro1/DW Pro2 SD Pro1/SD Pro2 (CEHS-AV03/AV04)	Base Configuration: Interface switch “A”, Mic Vol 5.5, Wideband Enabled
8	Sennheiser	DW Office, SD Office (CEHS-AV03/AV04)	Base Configuration: Interface switch “A”, Mic Vol 4.0, Wideband Enabled

Note – Many headsets are provided from the factory with foam ear cushions that can be replaced with leatherette cushions. Leatherette cushions provide a more complete seal to the pinna of the user's ear resulting in better noise isolation, but as well as an increased bass frequency response. The test results provided in the table above are with the default cushions provided.

4. Maximum Sound Levels

Headset users are often concerned with the maximum sound level that can be experienced. During Avaya acoustic testing of wired and wireless headsets we validate that the phone/cable/headset combination meets the required Long Term Disturbances (Maximum Sound Pressure Level) as recommended by UL-60950 of less than 118 dBA for a 0.5 second duration.

Long Term Audio Exposure or Time Weighted Average management is a feature that monitors acoustic levels over the period of minutes/hours and adjusts listening levels accordingly to protect the headset user from long term hearing damage. This audio level management capability is provided by a number of wireless headset products that have Digital Signal Processing (DSP) capability in the wireless headset itself.

Please contact your headset vendor for more information on long term exposure protection.