



**Application Notes for Configuring Sennheiser
Communications A/S SC 230 USB CTRL and SC 260 USB
CTRL Headsets with Avaya One-X® Communicator - Issue
1.0**

Abstract

These Application Notes describe the configuration steps required to integrate the Sennheiser Communications A/S SC 230 USB CTRL and SC 260 USB CTRL headsets with Avaya One-X® Communicator.

The Sennheiser Communications A/S SC 230 USB CTRL is a corded monaural headset. The Sennheiser Communications A/S SC 260 USB CTRL is a corded binaural headset. Both headsets offer in-line controls that provide the ability to manage PC communications with the use of soft-phone applications; the in-line control buttons on the headsets offers call control for Volume, Mute, Call-Origination, Call-answer, Call-end and Call-Reject functions.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe the configuration steps required to integrate the Sennheiser Communications A/S SC 230 USB CTRL and SC 260 USB CTRL headsets with Avaya One-X® Communicator.

The Sennheiser Communications A/S SC 230 USB CTRL is a corded monaural headset. The Sennheiser Communications A/S SC 260 USB CTRL is a corded binaural headset. Both headsets offer in-line controls that provide the ability to manage PC communications with the use of soft-phone applications; the in-line control buttons on the headsets offers call control for Volume, Mute, Call-Origination, Call-answer, Call-end and Call-Reject functions.

2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to and from a PC running Avaya one-X® Communicator with the Sennheiser Communications A/S SC 230 USB CTRL and SC 260 USB CTRL headsets and verifying two-way audio. The call types included calls to voicemail, to and from local extensions, and the PSTN.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

Avaya's formal testing and Declaration of Conformity is provided only on the headsets/handsets that carry the Avaya brand or logo. Avaya may conduct testing of non-Avaya headset/handset to determine interoperability with Avaya phones. However, Avaya does not conduct the testing of non-Avaya headsets/handsets for: Acoustic Pressure, Safety, Hearing Aid Compliance, EMC regulations, or any other tests to ensure conformity with safety, audio quality, long-term reliability or any regulation requirements. As a result, Avaya makes no representations whether a particular non-Avaya headset will work with Avaya's Deskphones or with a different generation of the same Avaya Deskphone.

Since there is no industry standard for handset interfaces, different manufacturers utilize different handset/headset interfaces with their Deskphones. Therefore, any claim made by a headset vendor that its product is compatible with Avaya Deskphones does not equate to a guarantee that the headset will provide adequate safety protection or audio quality.

2.1. Interoperability Compliance Testing

All test cases were performed manually. The following features were verified:

- Placing calls to the voicemail system. Voice messages were recorded and played back to verify that the playback volume and recording level were good.
- Placing and receiving calls to and from internal IP (H.323), Digital and Analog extensions to verify two-way audio.
- Placing and receiving calls to and from the PSTN to verify two-way audio.
- Hearing ring back tone on the headsets for incoming and outgoing calls.
- Placing, answering and ending calls using the call control buttons on Avaya one-X® Communicator and in-line call control buttons on the headsets.
- Using the volume control buttons on Avaya one-X® Communicator and in-line volume control buttons on the headsets, to adjust the audio volume on the headsets.
- Using the Mute control button on Avaya one-X® Communicator and in-line Mute control button on the headset, to mute and un-mute the audio on the headsets.
- Using the in-line call control button on the headsets to reject incoming calls.
- Using the Hold button on Avaya one-X® Communicator to hold and un-hold active calls.

Serviceability testing was done by exiting and logging back into Avaya one-X® Communicator and by un-plugging and plugging the headsets from the PC during active calls to ensure that two-way audio is re-established automatically to the headsets.

2.2. Test Results

Testing was completed successfully with the following observations/limitations.

- Executing last number redial by holding the accept/end call button on the headsets for 2+ seconds did not work.

2.3. Support

For support on the Sennheiser Communications A/S Headset solution, contact Sennheiser Communications A/S technical support at:

Website: http://www.sennheisercommunications.com/comm/home_en.nsf/root/service

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Sennheiser Communications A/S SC 230 USB CTRL and SC 260 USB CTRL headsets with Avaya One-X® Communicator. The configuration consists of an Avaya S8300 server running Avaya Aura® Communication Manager with an Avaya G450 Media Gateway and a mix of Deskphones (IP, analog and digital) for placing calls to and from the equipment under test.

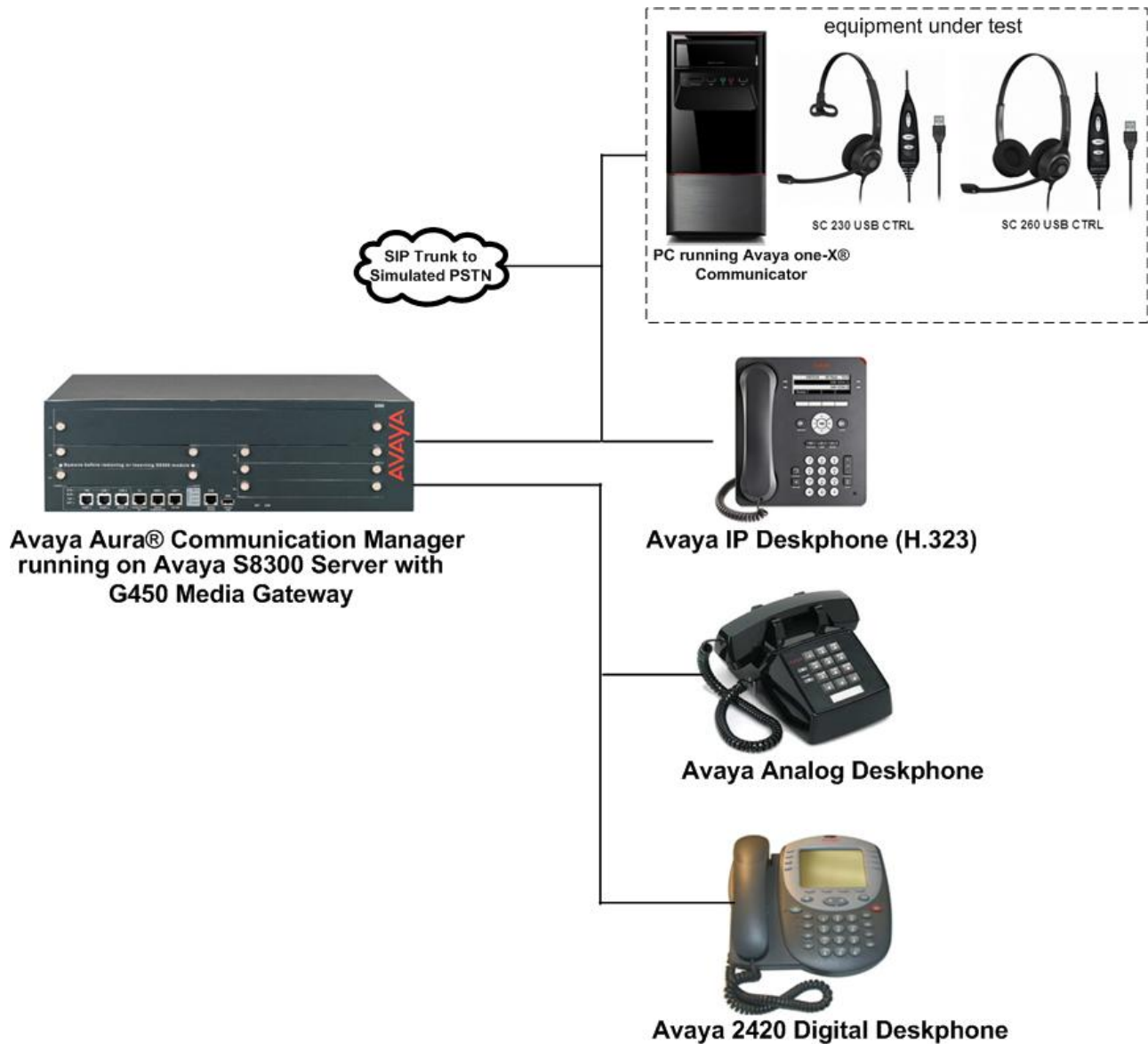


Figure 1: Avaya one-X® Communicator with Sennheiser Communications A/S SC 230 USB CTRL and SC 260 USB CTRL Headsets.

4. Equipment and Software Validated

The following equipment and software were used for the sample configuration:

Equipment/Software	Release/Version
Avaya Aura® Communication Manager running on Avaya S8300 Server with a G450 Media Gateway	6.2 SP3 (02.0.823.0-20001)
Microsoft Windows® XP Professional	Ver. 2002, Service Pack 3
Avaya One-X® Communicator (H.323)	6.1.5.07-SP5-37495
Avaya 9600 Series IP Deskphones (H.323)	Avaya one-X® Desk phone Edition Version 3.104
Avaya Analog Deskphone	N/A
Avaya 2420 Digital Deskphone	6.0
Sennheiser Communications A/S SC 230 USB CTRL Headset	N/A
Sennheiser Communications A/S SC 260 USB CTRL Headset	N/A
Sennheiser Communications A/S HeadSetup Software Application	2.7.0

5. Configure Avaya Aura® Communication Manager

These Application Notes assume that Avaya Aura® Communication Manager is configured and operational. This section focuses only on the configuration of the station to be use with Avaya one-X® Communicator. The values configured in this section were used during the compliance tests, default values may be used for any fields not configured in these Application Notes. The configuration is performed via the System Access Terminal (SAT) on Avaya Aura® Communication Manager.

5.1. Configure a Station for Avaya One-X® Communicator

To create a station to be used with Avaya one-X® Communicator use the **add station n** command; where **n** is an available extension in the dial plan, extension **3048** was used in the sample configuration. Set the **Type** field to the IP Telephone type that will be emulated, **9640** was used in the sample configuration. In the **Security Code** field enter a password to be used by Avaya one-X® Communicator to log in. Set the **Coverage Path 1** field to the Coverage Path configured for Voice Mail, “**1**” was used in the sample configuration. Ensure that **IP SoftPhone?** is set to **y**.

Note that in the screenshot shown below **display station 3048** was used instead of **add station 3048** since station 3048 was previously added.

```
display station 3048                                     Page 1 of 5
STATION
Extension: 3048                                         Lock Messages? n      BCC: M
Type: 9640                                             Security Code: *      TN: 1
Port: S00013                                          Coverage Path 1: 1    COR: 1
Name: H.323 one-X, Ext 3048                          Coverage Path 2:      COS: 1
                                                       Hunt-to Station:

STATION OPTIONS
Loss Group: 19                                         Time of Day Lock Table:
                                                       Personalized Ringing Pattern: 1
Speakerphone: 2-way                                    Message Lamp Ext: 3048
Display Language: english                             Mute Button Enabled? y
Survivable GK Node Name:                               Button Modules: 0
Survivable COR: internal                             Media Complex Ext:
Survivable Trunk Dest? y                             IP SoftPhone? y

                                                       IP Video Softphone? y
Short/Prefixed Registration Allowed: default

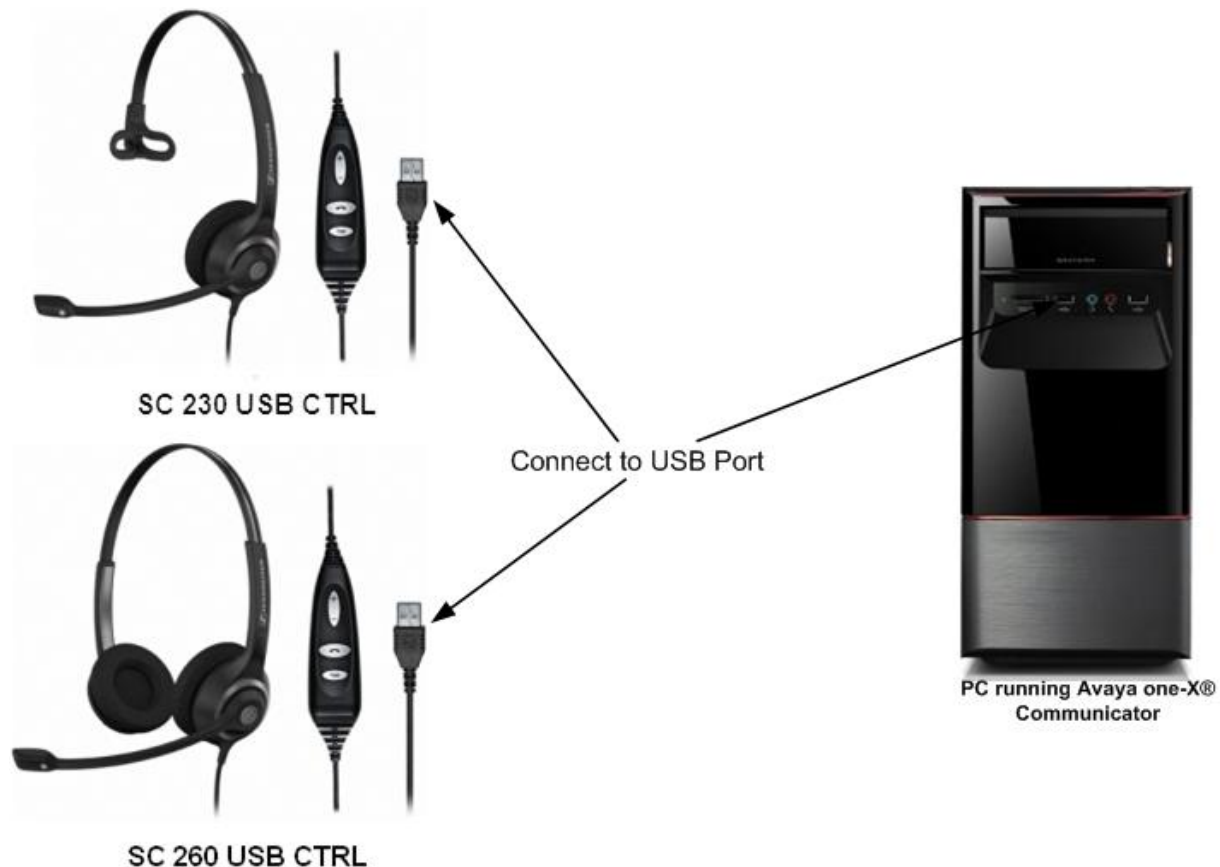
                                                       Customizable Labels? y
```

6. Connect the Sennheiser Communications A/S SC 230 USB CTRL and SC 260 USB CTRL Headsets to the PC running Avaya One-X® Communicator

During the compliance test the Sennheiser Communications A/S SC 230 USB CTRL and SC 260 USB CTRL headsets were connected to the PC running Avaya One-X® Communicator. The Sennheiser Communications A/S SC 230 USB CTRL is a corded monaural headset. The Sennheiser Communications A/S SC 260 USB CTRL is a corded binaural headset. Both headsets offer in-line controls that provide the ability to manage PC communications with the use of soft-phone applications; the in-line control buttons on the headsets offers call control for Volume, Mute, Call-Origination, Call-answer, Call-end and Call-Reject functions.

6.1. Cable connections

To connect the Sennheiser Communications A/S SC 230 USB CTRL or the SC 260 USB CTRL headset to the PC running Avaya One-X® Communicator, see diagram below.



7. Install the Sennheiser Communications A/S HeadSetup™ Software on the PC running Avaya one-X® Communicator

Download and install the latest release of Sennheiser Communications A/S HeadSetup™ software on the PC running Avaya one-X® Communicator. The Sennheiser Communications A/S HeadSetup™ software application enables integrated call control features on the Sennheiser Communications A/S headsets with the use of the in-line control buttons on the headset. The Sennheiser Communications A/S HeadSetup™ software can be downloaded from the Sennheiser Communications A/S web site; please consult references in **Section 12**.

Once the Sennheiser Communications A/S HeadSetup™ software is installed the application can be launched from **Start → Programs → Sennheiser → HeadSetup**.

If Avaya one-X® Communicator is not running, the program icon will initially be a gray circle with a white slash, as shown below, to indicate that it is not connected to a soft-phone.



If Avaya one-X® Communicator is running, the program icon will change and will show a green arrow, as shown below, to indicate that it is connected to a soft-phone.



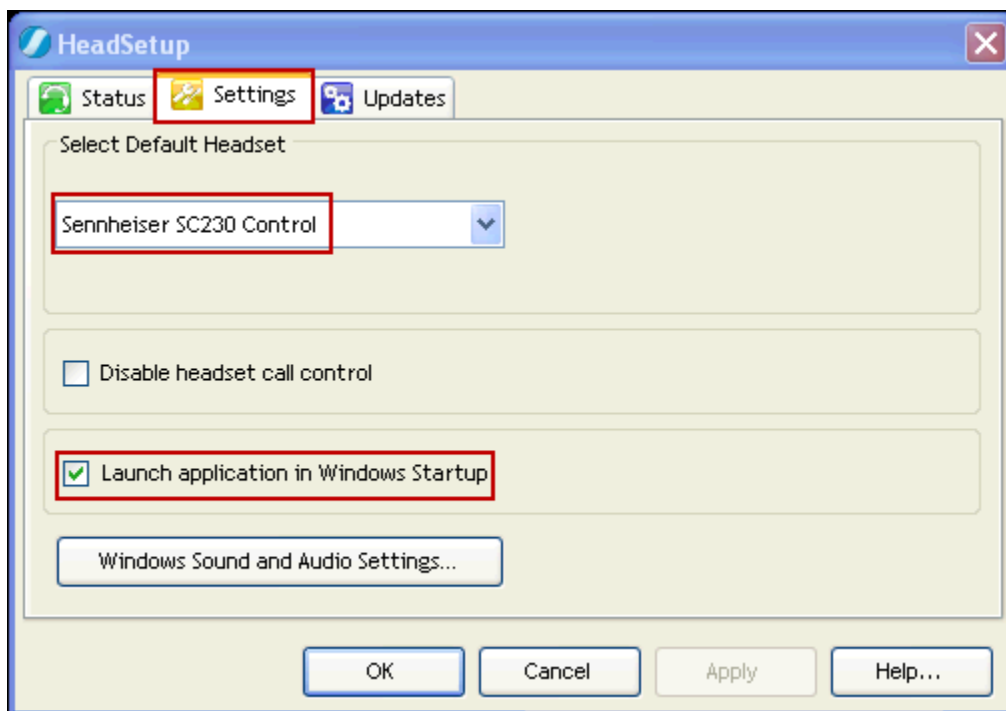
7.1. Configure the Sennheiser Communications A/S HeadSetup™ Application

Once the HeadSetup™ application is launched and is running, double click on the HeadSetup™ application icon shown below.

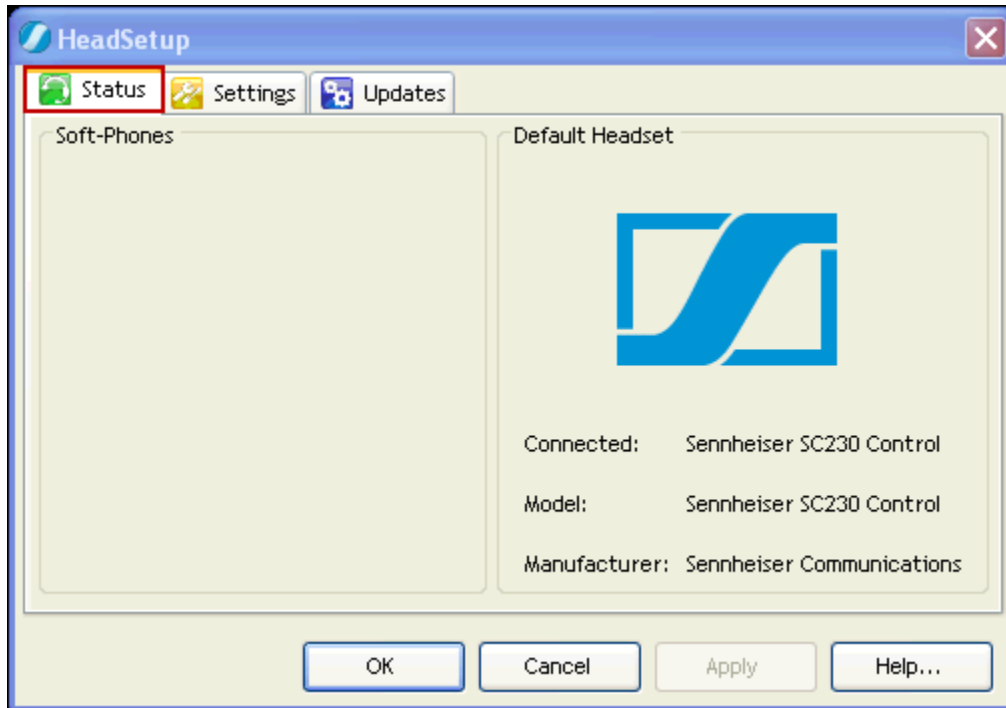


Verify that on the **Settings** tab, the **Launch application in Windows Startup** is checked (recommended).

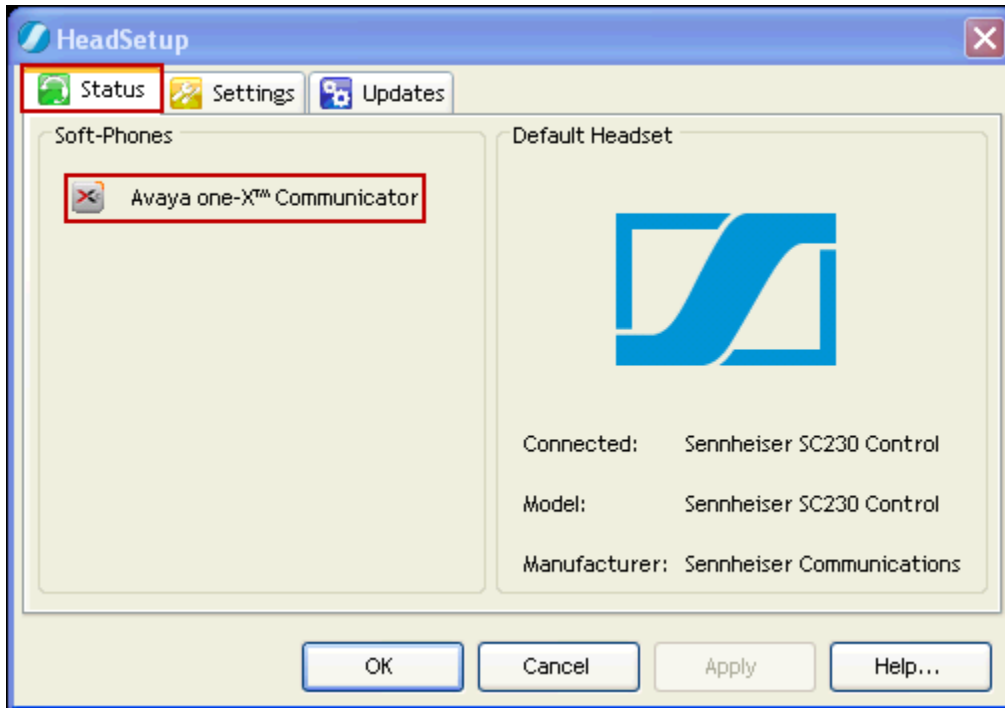
Under **Select Default Headset** the Sennheiser SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headsets is automatically detected as **Sennheiser SC230 Control** or **Sennheiser SC260 Control** (not shown).



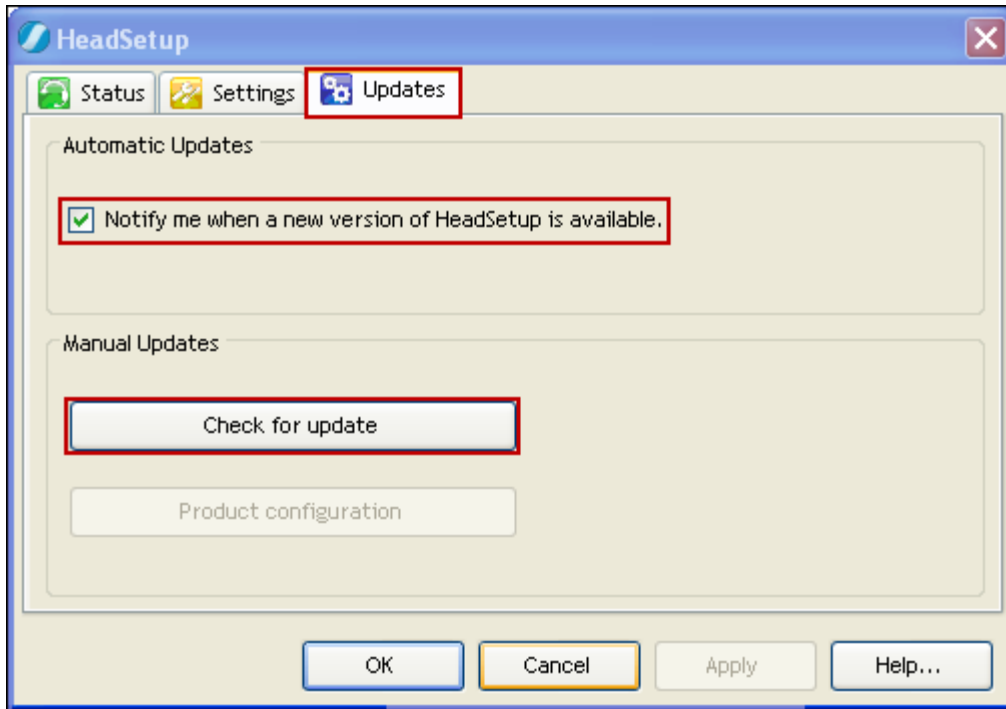
With the Sennheiser SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headsets connected to the PC and **before** launching Avaya One-X® Communicator, the **Status** tab will show the program as running and connected to the **Sennheiser SC230 Control** or the **Sennheiser SC260 Control** headset (not shown). Since Avaya One-X® Communicator is not running yet no soft-phone will be listed as registered under **Soft-Phones**.




With the Sennheiser SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headsets connected to the PC and **after** launching Avaya One-X® Communicator, the **Status** tab will show the program as running and connected to the **Sennheiser SC230 Control** or the **Sennheiser SC260 Control** headset (not shown) with Avaya One-X® Communicator listed under **Soft-Phones**.

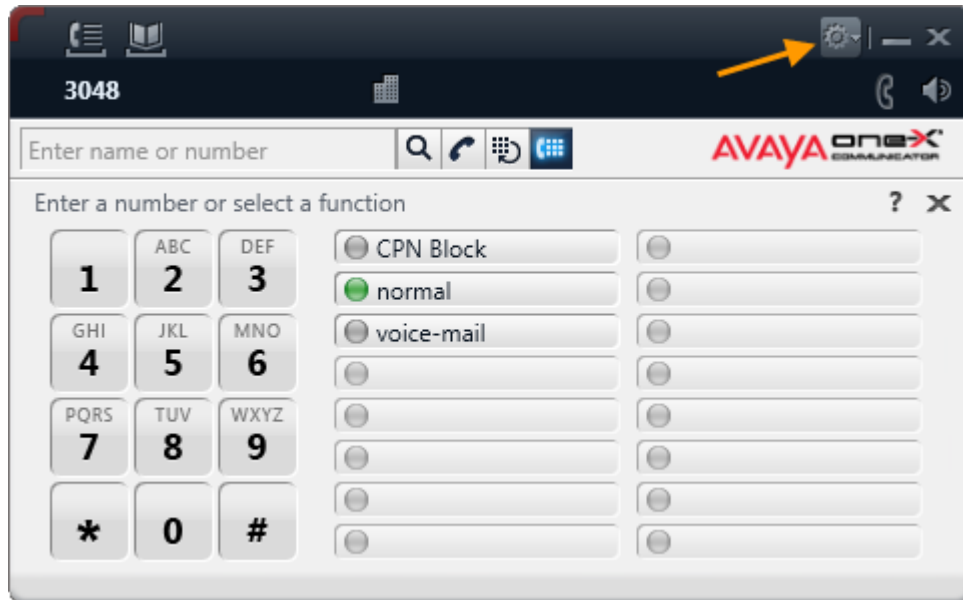


The software Version of the Sennheiser Communications A/S HeadSetup™ Application can be updated after the application is installed. To update the software manually go to the **Updates** tab and click on **Check for update**. Updates notifications can also be enabled by checking **Notify me when a new version of HeadSetup is available**.

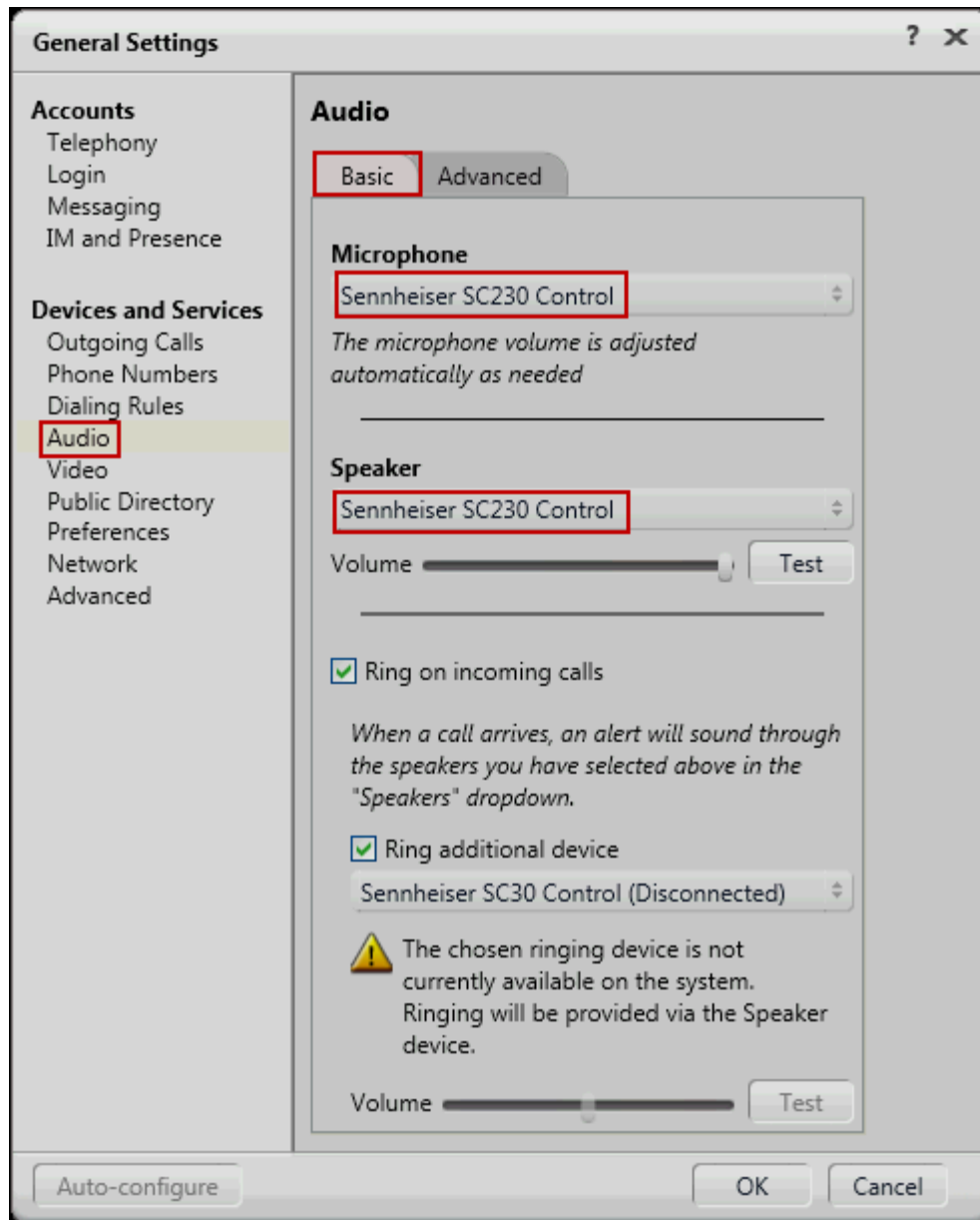


8. Configure Avaya One-X® Communicator

These Application Notes assume that Avaya one-X® Communicator is already configured and operational. This section focuses only on the settings used with the Sennheiser Communications A/S SC 230 USB CTRL and SC 260 USB CTRL headsets. After logging into Avaya one-X® Communicator, select  → **Settings** → **General Settings** from the menu as shown below.



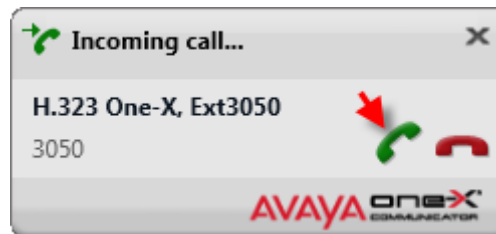
Under **Devices and Services** select **Audio**. Once logging into Avaya one-X® Communicator is completed the Sennheiser Communications A/S SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headset is automatically detected by Microsoft Windows® as **Sennheiser SC230 Control** (not shown) or **Sennheiser SC260 Control** (not shown), Avaya one-X® Communicator will display **Sennheiser SC230 Control** or **Sennheiser SC260 Control** (not shown) under the **Microphone** and **Speaker** tabs. Under **Speaker** → **Test** adjust the **Speaker** volume of the headset as needed. The Speaker volume of the headset can also be adjusted under **Sounds and Audio Devices Properties** in Microsoft Windows® **Control Panel** (not shown).



9. Answering, Ending, and Placing Calls

To answer, end, or place a call using the Sennheiser Communications A/S SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headsets follow the instructions below.

To Answer a Call: During incoming calls Avaya one-X® Communicator will display an Incoming call toast similar to the one shown below, press the green telephone handset icon on the incoming call toast to answer a call.



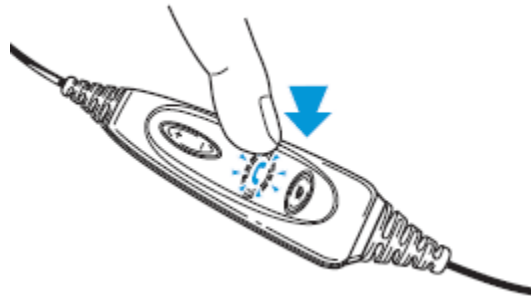
Or press the in-line Answer/End button on the Sennheiser Communications A/S SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headset to answer a call.



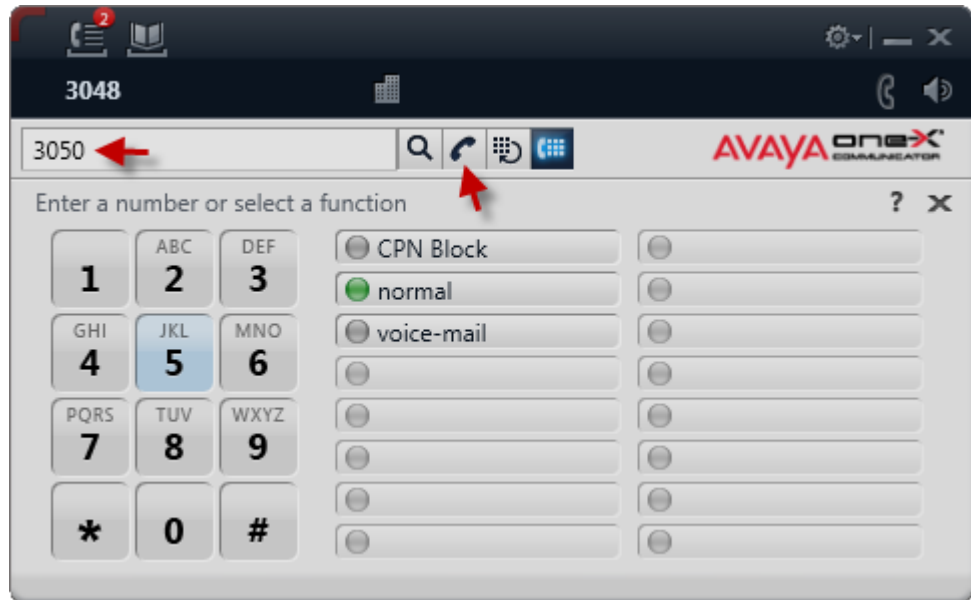
To End a Call: Press the red telephone handset icon on Avaya one-X® Communicator to end a call.



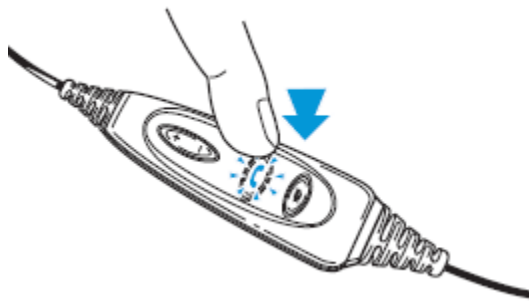
Or press the in-line Answer/End button on the Sennheiser Communications A/S SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headset to end a call.

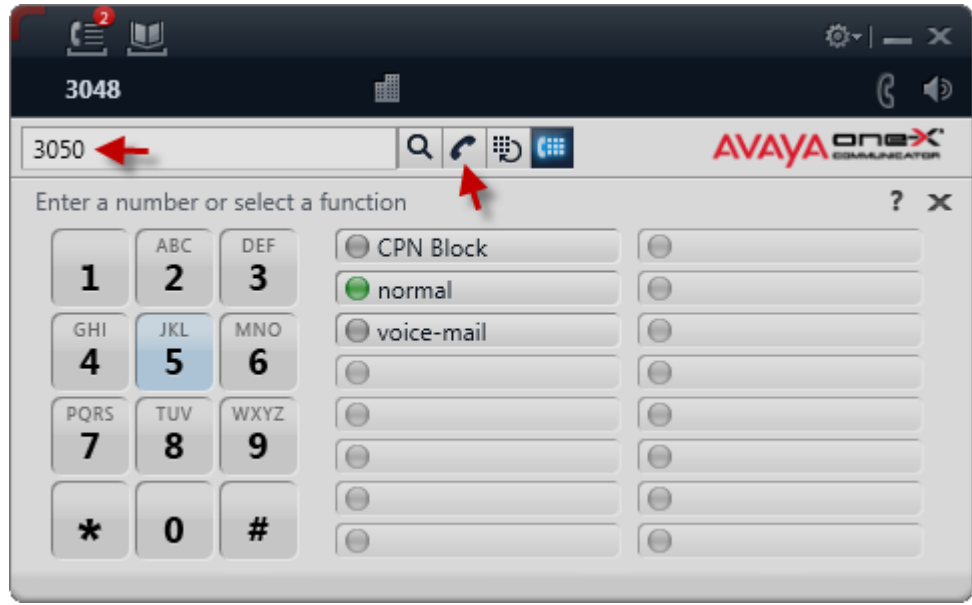


To Place a Call: Press the black telephone handset icon on Avaya one-X® Communicator to receive dial tone, enter the number after receiving dial tone and press **Enter** on the PC key board (not shown), or enter a number first as shown below, then press the black telephone handset icon to place a call.

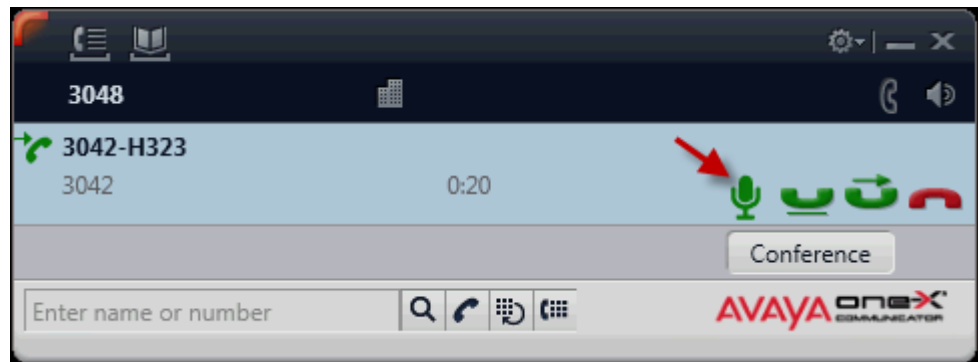


Or press the in-line Answer/End button on the Sennheiser Communications A/S SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headset to receive dial tone, enter the number on Avaya one-X® Communicator, then press the black telephone handset icon or press **Enter** on the PC key board (not shown) to place a call.





To Mute an active call: Press the MUTE button on Avaya one-X® Communicator to place an active call on mute.

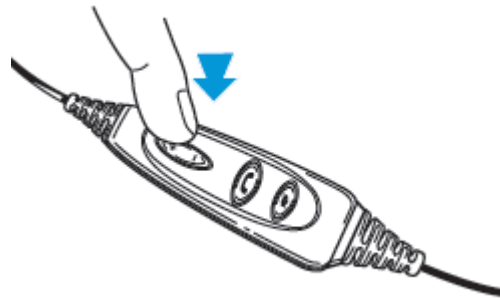


Or Press the MUTE button on the Sennheiser Communications A/S SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headset to place an active call on mute.



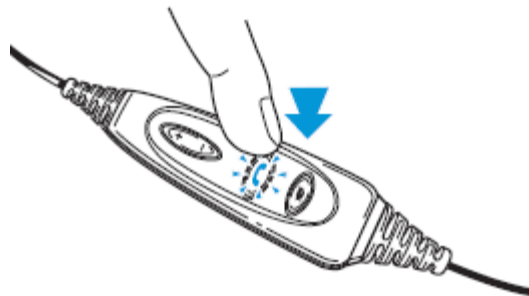
To adjust the speaker volume:

Use the volume control buttons on the Sennheiser Communications A/S SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headset to adjust the speaker volume on the headset.



To reject incoming calls:

Press the in-line Answer/End button on the Sennheiser Communications A/S SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headset for an extended period of time without releasing.



For more information on how to use the headsets refer to the Sennheiser Communications A/S SC230 USB CTRL or the Sennheiser SC 260 USB CTRL headsets Quick Guides included with the headsets. For the link to on-line documentation refer to **Section 12**.

10. Verification Steps

Verify that the Sennheiser Communications A/S SC 230 USB CTRL or the Sennheiser SC 260 USB CTRL headset have been connected to the PC running Avaya One-X® Communicator, as shown in **Section 6.1**. Launch and configure Avaya One-X® Communicator and the Sennheiser Communications A/S HeadSetup™ software application as shown in **Sections 7 and 8**. Verify that incoming and outgoing calls can be established using the call control buttons on Avaya one-X® Communicator and in-line buttons on the headsets, and that clear two-way audio, dial tone, ring-back tone can be heard on the headset when making and receiving calls.

11. Conclusion

These Application Notes describe the configuration steps required to integrate the Sennheiser Communications A/S SC 230 USB CTRL and SC 260 USB CTRL headsets with Avaya One-X® Communicator. Testing was completed successfully with observations noted in **Section Error! Reference source not found.**

12. Additional References

This section references the Avaya and Sennheiser Communications A/S documentation that are relevant to these Application Notes.

The following Avaya product documentation can be found at <http://support.avaya.com>

- [1] *Administering Avaya Aura™ Communication Manager*, Release 6.0, Issue 6.0, June 2010, Document Number 03-300509.
- [2] *Implementing Avaya One-X® Communicator*, June 2012.

The following Sennheiser Communications A/S documentation can be found at <http://www.sennheisercommunications.com/>

- [3] *Quick guide for SC 230 USB ML and SC 260 USB ML*.

The Sennheiser Communications A/S HeadSetup™ software application can be downloaded from the following Website:

<http://www.senncom.com/headsetup>

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