



Avaya Solution & Interoperability Test Lab

Application Notes for EPOS IMPACT SD & DW Series DECT Headset using EPOS CEHS-AV04 Adapter with Avaya J100 Series Deskphone - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate EPOS IMPACT SD & DW Series DECT Headsets using EPOS CEHS-AV04 Adapter with Avaya J100 Series Deskphone.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

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

The EPOS IMPACT SD & DW Series DECT Headsets connects with Avaya J100 Series Deskphone (hereafter referred to as J100) using EPOS CEHS-AV04 adapter. The EPOS CEHS-AV04 adapter is compatible with the EPOS IMPACT SD & DW Series Headsets.

The following EPOS IMPACT SD & DW Series DECT headsets were used for compliance testing.

- IMPACT SD Pro 2 ML
- IMPACT DW Office ML
- IMPACT DW Pro 2 ML

Note: See the EPOS Declaration of Compliance, **Attachment 1**, which provides details of other EPOS IMPACT SD & DW Series DECT headset models for which this testing applies. For additional information contact EPOS support as shown in **Section 2.3**.

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 the J100 and verifying two-way audio. The call types included calls to voicemail, to local extensions, and to the PSTN. Auto-answer, call hold and resume, mute and un-mute, and volume were also tested.

The serviceability testing focused on verifying the usability of the headset solution by reconnecting the headset cable to the J100 Deskphone, cycle power the headset and after restarting J100 Deskphone and moving away from the DECT range.

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 recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and endpoints utilized enabled capabilities of TLS/SRTP.

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 telephone.

Since there is no industry standard for handset interfaces, different manufacturers utilize different handset/headset interfaces with their telephones. Therefore, any claim made by a headset vendor that its product is compatible with Avaya telephones 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 calls to internal extensions to verify two-way audio.
- Placing calls to the PSTN to verify two-way audio.
- Hearing ringing tone for incoming and ring back for outgoing calls.
- Answering and ending calls using the call control buttons on the headset and headset button on J100.
- Auto-answer calls place to J100 with headset.
- Using the volume control buttons on the J100 and headset to adjust the audio volume.
- Using the mute control buttons on the J100 and headset to mute and un-mute the audio and verifying the mute status.
- Using the hold soft button on the J100 to hold and resume the call.
- Switching between the headset, the phone handset and speaker while in conversation.

For the serviceability testing, the adapter cable was reconnected to the J100 headset port, power cycle the headset, restart J100 and moving away from the DECT range to verify proper operation of the headset.

2.2. Test Results

All test cases passed, and one observation was made:

- The call is muted, but the mute status is not synchronized between EPOS headset and J100.

2.3. Support

For support on this EPOS headset solution, contact EPOS Technical Support below where sign-in is required:

- Website: <https://eposaudio.com/support/>

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify EPOS CEHS-AV04 adapter integration with Avaya J100 Series Deskphone using EPOS IMPACT SD & DW Series DECT headsets. The EPOS IMPACT SD & DW Series DECT headsets connect through the headset port via the CEHS-AV04 Adapter to Avaya J100 Series Deskphone. Refer to the **Section 6** for more details. Avaya J189 SIP Deskphone and Avaya J179 H.323 Deskphone were used in these compliance test. The following IMPACT SD & DW Series were used for compliance testing.

- IMPACT SD Pro 2 ML
- IMPACT DW Office ML
- IMPACT DW Pro 2 ML

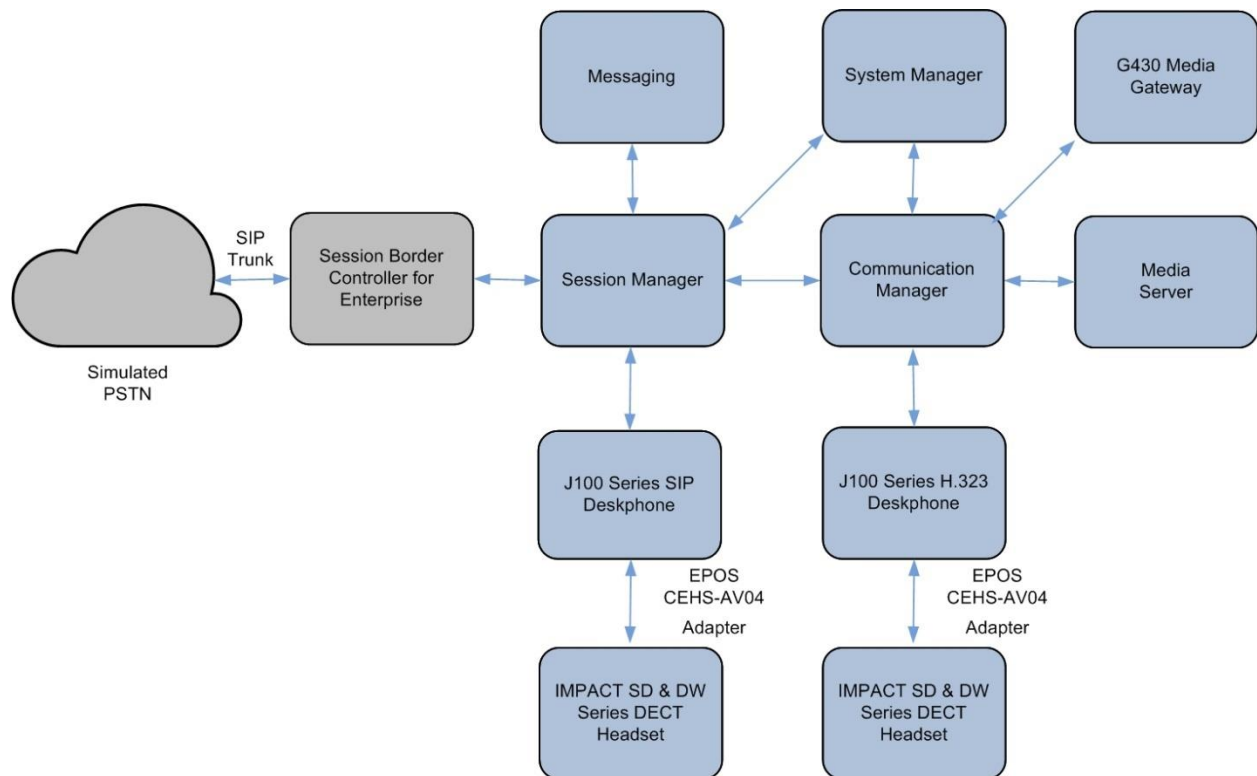


Figure 1: Test Configuration

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® Communication Manager	8.1.3.0.1-FP3P1
Avaya G430 Media Gateway <ul style="list-style-type: none">• MGP	41.34.1
Avaya Aura® System Manager	8.1.3.1 Build No. - 8.1.0.0.733078 Software Update Revision No: 8.1.3.1.1012244 Service Pack 1
Avaya Aura® Session Manager	8.1.3.1.813113
Avaya Aura® Media Server	8.0.2.138
Avaya Messaging	10.8 SP1SU2
Avaya J179 Deskphone (H.323)	6.8511
Avaya J189 Deskphone (SIP)	4.0.10
EPOS IMPACT SD & DW Series DECT Headsets <ul style="list-style-type: none">• IMPACT SD Pro 2 ML• IMPACT DW Office ML• IMPACT DW Pro 2 ML	175
EPOS CEHS-AV04 Adapter	N/A

5. Configure Avaya J100 Deskphone

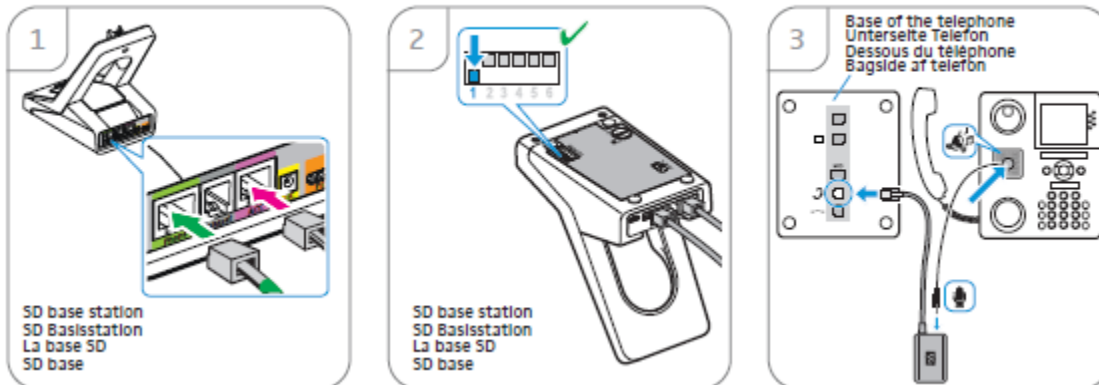
It is implied a working Communication Manager system is already in place, including dial plans and SIP trunks to Session Manager. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**. It is assumed that J100 have been configured and setup. Below list the additional settings required of the J100 Deskphone from the **Menu** button for setting the **Audio Path** and **Headset Signaling**.

- Menu → Settings → Audio → Audio Path → **Headset**
- Menu → Settings → Audio → Headset Signaling → **Switch Hook and Alert**

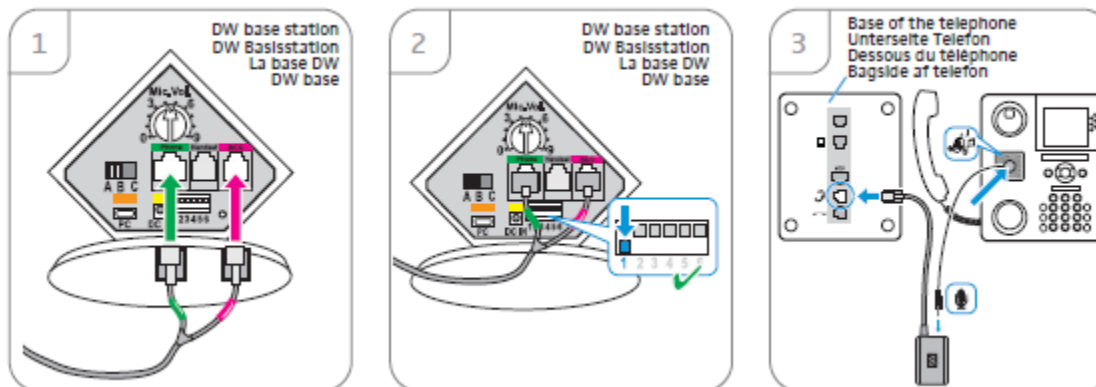
6. Setup of EPOS CEHS-AV04 adapter

The following shows the connection and DIP switch settings on the base for both EPOS IMPACT SD and DW Series base station to the headset port of the Avaya J100 Deskphone.

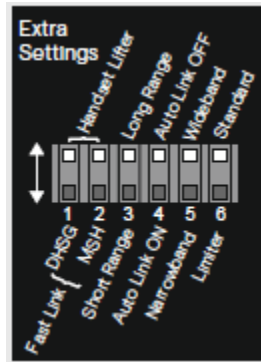
SD series



DW series



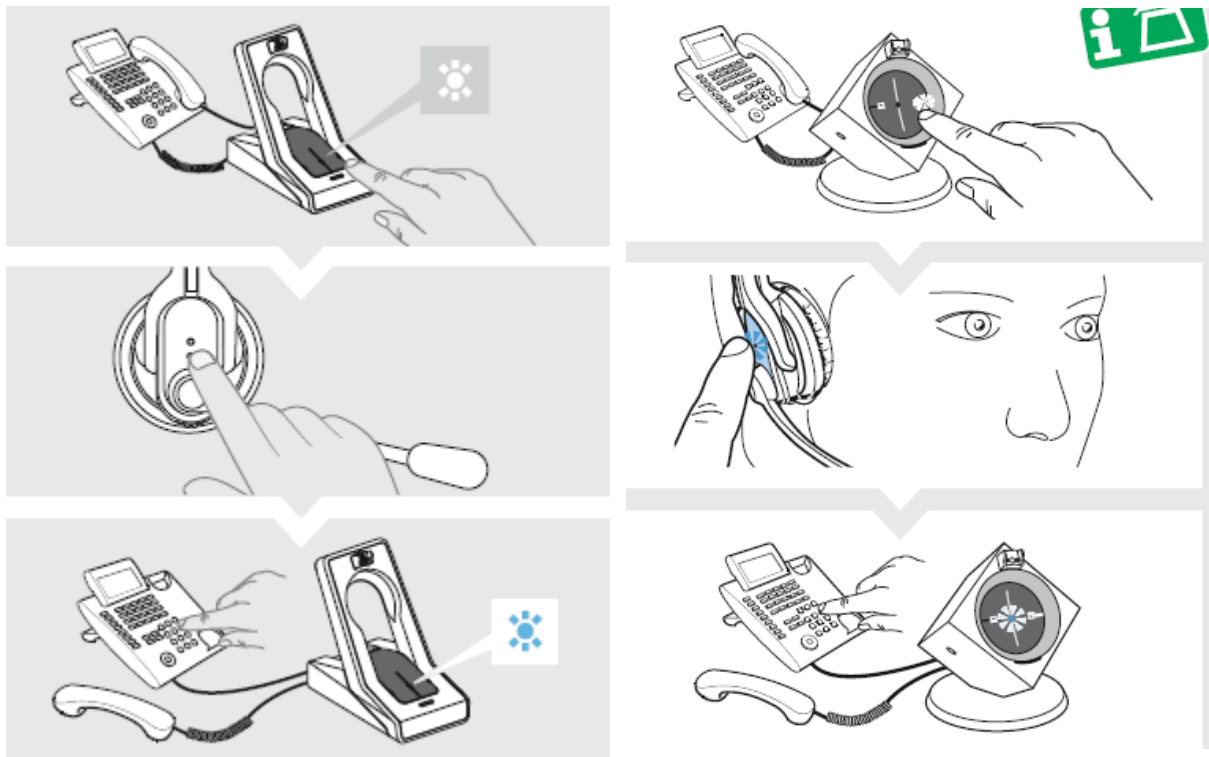
The DIP switch 1 is set (down position) for using DHSG standard. In these compliance test, DIP switch 4 is also set (down position) for automatically establish link between headset and base station when taking headset out of the base station. Leave the rest as default.



7. Verification Steps

This section verifies that the EPOS adapter has been successfully integrated with J100.

- Setup the EPOS CEHS-AV04 adapter as in **Section 6** with the adapter cable to both the J100 and EPOS headset base station.
- Verify the J100 Deskphone menu is configured as in **Section 5**.
- Verify dial tone can be heard by pressing the headset button on J100 or press the call control button on the headset or the base station.
- Make incoming and outgoing calls and verify that calls can be established with two-way audio. For incoming calls, answer the call by pressing the call control button on the headset or the base (as shown below for both EPOS IMPACT SD and DW Series).
- End the call by pressing the same call control button on the headset or base.
- Verify also that the headset is able to remotely control call functions such as mute/un-mute and adjust the volume. Similarly, verify such call control functions could also be done on the J100.



8. Conclusion

These Application Notes describe the integration of EPOS IMPACT SD & DW Series DECT Headsets using EPOS CEHS-AV04 Adapter with Avaya J100 Series Deskphone. All test cases were completed successfully with observations noted in **Section 2.2**.

9. Additional References

This section references the Avaya and EPOS 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 8.1.x, Issue 8, Nov 2020.
- [2] *Administering Avaya Aura® Session Manager*, Release 8.1.x, Issue 7, Oct 2020.
- [3] *Using Avaya J189 SIP IP Phone in Avaya Aura®*, Release 4.0.1, Issue 1, July 2021.

The EPOS documentation can be obtained at <http://www.eposaudio.com>.

- [5] *EPOS IMPACT SD Series Quick guide*.
- [6] *EPOS IMPACT DW Series Quick guide*.

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Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.

EPOS Group A/S
 Industriparken 27,
 DK-2750 Ballerup, Denmark
 eposaudio.com

Declaration of Compliance

We, EPOS Group A/S, declare under sole responsibility that product series, IMPACT DW Office/Pro 1/Pro2, and IMPACT SD Office/Pro1/Pro2 are only mechanical variations with no impact on firmware (FW) functionality or acoustical performance.


The difference between the IMPACT DW Office/Pro 1/Pro2 and IMPACT SD Office/Pro 1/Pro2 is the base station which was redesigned mechanically while the schematics and RF board is kept 100% the same. The FW is also the same. The headsets which defines the acoustics are 100% the same.

	IPC Recommended product series	Variant series
Product sales name	IMPACT DW Office IMPACT DW Pro 1 IMPACT DW Pro 2	IMPACT SD Office IMPACT SD Pro 1 IMPACT SD Pro 2
Product similarities	Firmware image Headsets supported RF PCBA Schematic Acoustical design	
Product differences	Mechanical design of basestation	

Table 1: Products overview



Theis Mørk
 VP Product Management Enterprise
 Solutions
 EPOS Group A/S



Jurate Beniulyte
 Head of Strategic Alliances
 EPOS Group A/S

EPOS Group A/S
Industriparken 27,
DK-2750 Ballerup, Denmark
eposaudio.com

Appendix 1: Photos

Front side: IMPACT DW Office/Pro 1/Pro2 base

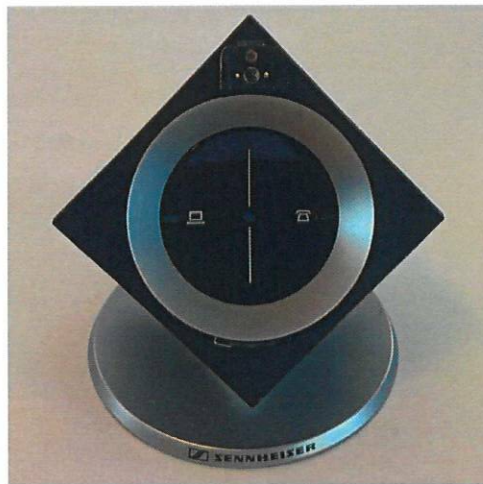


Photo 1: IMPACT DW Office/Pro 1/Pro 2 base, front view

Showing buttons for selection of soft phone or desk phone & hook on / answer and hook off and led lights and contacts for charging.

Front side: IMPACT SD Office/Pro 1/Pro2 base



Photo 2: IMPACT SD Office/Pro 1/Pro 2 base, front view

Showing buttons for selection of soft phone or desk phone & hook on / answer and hook off, led lights and contacts for charging.

EPOS Group A/S
 Industriparken 27,
 DK-2750 Ballerup, Denmark
 eposaudio.com

Rear side: IMPACT DW Office/Pro 1/Pro2



Photo 3a; IMPACT DW Office/Pro 1/Pro2, rear side view

Showing termination selector (ABC button), volume control, dip switches, connectors for phone, handset & ACC, micro USB and power supply.



Photo 3b ; IMPACT DW Office/Pro 1/Pro2, rear side view, close up

Rear side: IMPACT SD Office/Pro 1/Pro2

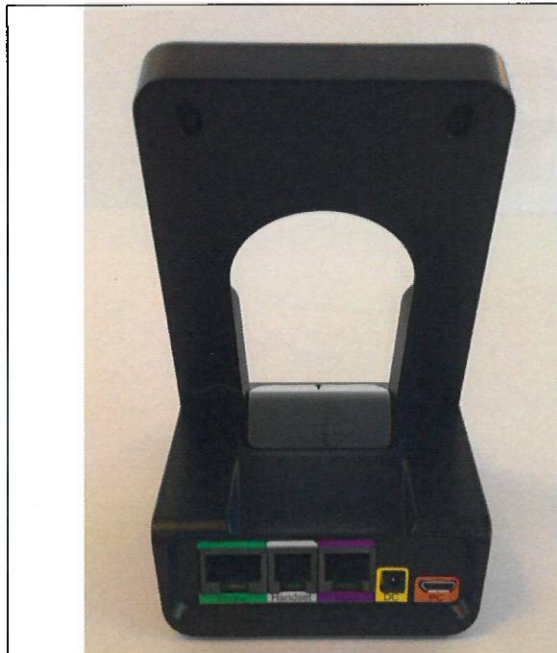


Photo 4a; IMPACT SD Office/Pro 1/Pro2, rear side view

Showing connectors for phone, handset & ACC, micro USB and power supply.



Photo 4b; IMPACT SD Office/Pro 1/Pro2, bottom side view

Showing termination selector (ABC button), volume control and dip switches.