

Simply Headsets



Technical Information Bulletin

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System: iPECS eMG80 & UCP

Topic: **Ericsson-LG EHSA**

Product Support Group

REVISION HISTORY

ISSUE	DATE	AUTHOR	CHANGES
1.0	2/3/2018	W.Smith	Initial Documentation
2.0	12/10/2020	Sang Park	Added more information about EHSA (V1/V2/V3/V4).

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1. INITIAL INFORMATION.

Note: The Ericsson-LG LIP-EHSA has replaced the Fonewise EHS unit
For Fonewise information see ATIB-1041

See the EHSA User Guide – hard copy or download from the partner portal.

Product Brief – Ericsson-LG Electronic Hook Switch Adaptor.

For connecting wireless headsets to Ericsson-LG iPECS system LIP-9000, LDP-9200, and 1000i handsets.

Description

The LIP-EHSA (Electronic Hook Switch Adaptor) is a product that connects a wireless office headset with an Ericsson-LG keyset. The adaptor allows the headset user to hear incoming call notification in the headset earpiece, and to answer and terminate calls by pressing a button on the headset. This enables the customer to take full advantage of the wireless headset, and to be able to operate the phone while being away from the workstation/desk.

The EHS Adaptor supports a number of wireless headsets from Jabra™, Plantronics® and SennheiserInc.

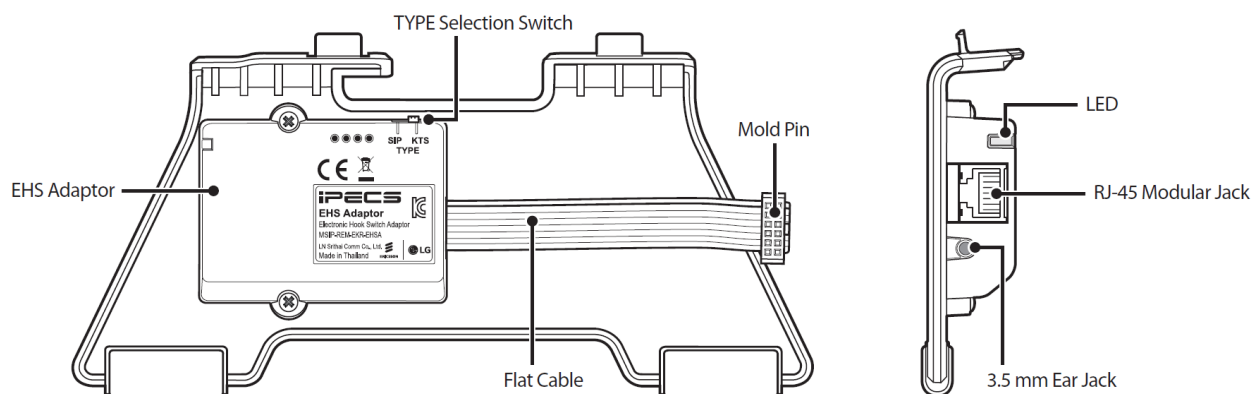


Figure 1 – EHSA

Package contents

In case of EHSA H/W V1/V2



- EHSA unit with hardwired cord & stand for iPECS handsets
- Extension cord for Jabra™
- Extension cord for Plantronics®
- User Guide (in English)

In case of EHSA H/W V3/V4



- EHSA unit with hardwired cord
- Screws (for fitting a EHSA on an existing stand)
- Extension cord for Jabra™
- Extension cord for Plantronics®
- User Guide (in English)

EHSA H/W Version V1/V2/V3 and V4

EHSA H/W V1

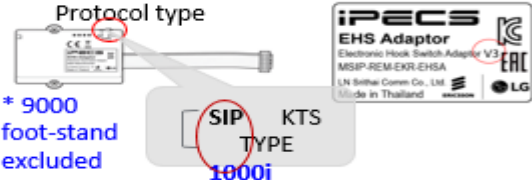
EHS Adapter V1	
Model name / PDM code	EHS Adaptor / TKTN9020301
Package / product label	 
Compatible Phones/Headset	LIP-9000, LDP-9200 Jabra, Plantronics
Remark	<ul style="list-style-type: none"> LIP-9000/9200 Protocol type needs to be selected to KTS according to the phone's protocol type. 9x00 DSS12/24/LSS24(button kits) and EHSA can be attached at the same time. 9x00 DSS48 and EHSA can't be attached at the same time.

EHSA H/W V2

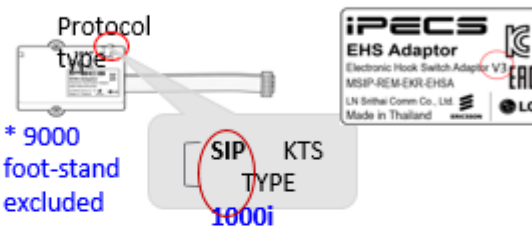
EHS Adapter V2 (Q3 2018~)	
Model name / PDM code	EHS Adaptor / TKTN9020301
Package / product label	 
Compatible Phones/Headsets	LIP-9000, LDP-9200, 1000i Jabra, Plantronics, Sennheiser
Remark	<ul style="list-style-type: none"> LIP-9000/LDP 9200 Protocol type needs to be selected to "KTS". 9x00 DSS12/24/LSS24(button kits) and EHSA can be attached at the same time. 9x00 DSS48 and EHSA can't be attached at the same time. 1000i Protocol type needs to be "SIP". 1000 iDSS24/iLSS48 and EHSA V2 can't be attached at the same time. Need to detach the 9000 foot-stand and attach it on to 1000i foot-stand.

For 1000i, only high angle of foot stand can be used due to short length of flat cable of EHSA H/W V2 when it is attached to a 1000i foot stand.

EHSA H/W V3

EHS Adapter V3 (Q1 2020~)	
Model name / PDM code	EHS Adaptor_V3 / TKTN9020303
Package / product label	<p>* Flat cable extension to 200mm</p> <p>Protocol type</p>  <p>* 9000 foot-stand excluded</p>
Compatible Phones	<p>LIP-9000, LDP-9200, 1000i</p> <p>Jabra, Plantronics, Sennheiser</p>
Remark	<ul style="list-style-type: none"> LIP-9000/9200 Protocol type needs to be selected to "KTS" 9x00 DSS12/24/LSS24(button kits) and EHSA can be attached at the same time. 9x00 DSS48 and EHSA can't be attached at the same time. attach it on to 9000 foot-stand. 1000i Protocol type needs to be "SIP". 1024 idss24/1048 ilss and EHSA V3 can't be attached at the same time. But when the S/W version of EHSA is V2.0, it can be fitted on 1024 idss or 1048 ilss. attach it on to 1000i foot-stand.

EHSA H/W V4

EHS Adapter V4 (Q3 2020~)	
Model name / PDM code	EHS Adaptor_V4 / TKTN9020303
Package / product label	<p>* Flat cable extension to 200mm</p> <p>Protocol type</p>  <p>* 9000 foot-stand excluded</p>
Compatible Phones	<p>LIP-9000, LDP-9200, 1000i</p> <p>Jabra, Plantronics, Sennheiser</p>
Remark	<ul style="list-style-type: none"> LIP-9000/9200 Protocol type needs to be selected to "KTS" 9x00 DSS12/24/LSS24(button kits) and EHSA can be attached at the same time. 9x00 DSS48 and EHSA can't be attached at the same time. attach it on to 9000 foot-stand. 1000i Protocol type needs to be "SIP". 1024 idss24/1048 ilss and EHSA V4 can be attached at the same time. attach it on to 1000i foot-stand.

EHSA S/W Version.

- From S/W Version 1.6, it can support Sennheiser Headset.
- From **S/W Version 2.0**, EHSA can be fitted on 1024idss/1048ilss(1000i keyset can have EHSA and its DSS keyset simultaneously).
- EHSA H/W V4 has S/W version 2.0.
- EHSA H/W V3 can have either S/W version 1.6 or 2.0.
- EHSA S/W version can't be field upgradable.

How to check EHS Adaptor S/W version

1. On LIP – 90xx Series

- 1) Set Protocol Switch to KTS and connect an EHSA to the serial port of phone.
- 2) Connect a Line cord, and wait until the phone is booted completely.
- 3) Press *****#*** when the phone is in idle state and the phone goes into test mode.
- 4) Press 6.
- 5) Check the EHSA S/W version.
- 6) Press 'Speaker' button to exit from the test mode, or reboot.

2. On 1000i Series

- 1) Set Protocol Switch to SIP and connect an EHSA to the serial port of phone.
- 2) Connect a Line cord, and wait until the phone is booted completely.
- 3) Press *****#*** when the phone is in idle state and the phone goes into test mode.
- 4) Press 6.
- 5) Check the EHSA S/W version.
- 6) Press 'Speaker' button to exit from the test mode, or reboot.

3. On LDP – 92xx Series

- 1) Set Protocol Switch to KTS and connect an EHSA to the serial port of phone.
- 2) Connect a Line cord, and wait until the phone is booted completely.
- 3) Press and hold **'*'+ '0'+ '#'** for more than 3 seconds together in idle state.
- 4) And release the buttons then the phone goes into test mode.
- 5) Check the EHSA S/W version.
- 6) Dial '0' button to exit from the test mode, or reboot.

Compatible Telephone models

The EHSA is compatible with the following handsets in the LG Ericsson iPECS series:

- **LIP-9008, LIP-9010, LIP-9020, LIP-9030, LIP-9040, LIP-9040C**
- **LDP-9224DF, LDP-9240D**
- **1020i, 1030i, 1040i, 1050i**

The EHSA is supported on:

iPECS eMG80/UCP software version 2.2.10 onward using keyset firmware **1.0Fh** onward for LIP-90xxD handsets.

To use 1000i Keyset, iPECS eMG80/UCP software version should be ver 4.0.6 onward.

To fit an EHSA on 1024idss/1048ilss, Version 1.0.16 onward for 1000i keyset should be used.

If your iPECS does not meet these minimum requirements, you will need to upgrade to newer software and/or firmware.

- Dial TRANS 72 to determine the system software.
- Dial TRANS 79 to determine the keyset firmware.

Non-Compatible Telephone models

The EHSA is not compatible with the following handsets in the LG Ericsson iPECS series:

- All models not listed in the above list. Basically, all smaller and legacy handsets.

This includes but not limited to:

- LIP-9002, LIP-9050, LIP-9070, LIP-9071, LDP-9208D, 1010i.
- LDP-9000 series, LIP-8000 series and any other legacy handsets.
- Any handset fitted with the LIP-9048DSS
- To fit an EHSA on 1024idss or 1048ilss and make it work, the EHSA S/W version should be 2.0 onward and the S/W of 1000i should be 1.0.16 onward. In case of 1048ilss, the version of 1048ilss should be 0.0.8 onward.

Compatible Headset models

The EHSA is compatible with a number of wireless office headsets from Jabra™ and Plantronics®

As a guide, the EHSA is compatible with the following wireless headsets:

(Aria Technologies is not liable for the functionality or limitations that may present with the following products. Third party specifications may change without notice. Also some headsets may meet customer requirements better than others. If a headset is unsuitable e.g. has a delay in connecting/disconnecting, please try another model. Unlisted headsets may or may not function correctly at all – if required, unlisted headsets can be tested at Aria Technologies Melbourne for a nominal testing fee to determine compatibility, settings & functionality.)

Plantronics® - Refer to Q621

SAVI 700 Series

CS500 Series

Jabra™ - Refer to Q628

Jabra Pro 920/925,

Jabra Pro 9400 Series,

Jabra Engage 65/75

Sennheiser – Refer to Q637

D10,

DW Series,

SDW Series

Other headset vendors may offer headsets that claim to be compatible with the Ericsson-LG LIP-EHSA Adaptor, however Aria Technologies will not conduct testing or accept anecdotal evidence of compatibility of these headsets

Installation Considerations

The EHSA is connected to the iPECS telephone through the DSS connector.

If one or more DSS modules are fitted on the telephone, the EHS cannot be connected.

But from EHSA S/W version 2.0, the EHS can be fitted on 1028idss or 1048ilss.

The EHSA is connected to the AUX port on the wireless headset base station through one of the two cables supplied with the adaptor.

The audio connection between the wireless headset and the headset port on the telephone is handled by the cable enclosed with the wireless headset. The audio stream is not passing through the EHSA.

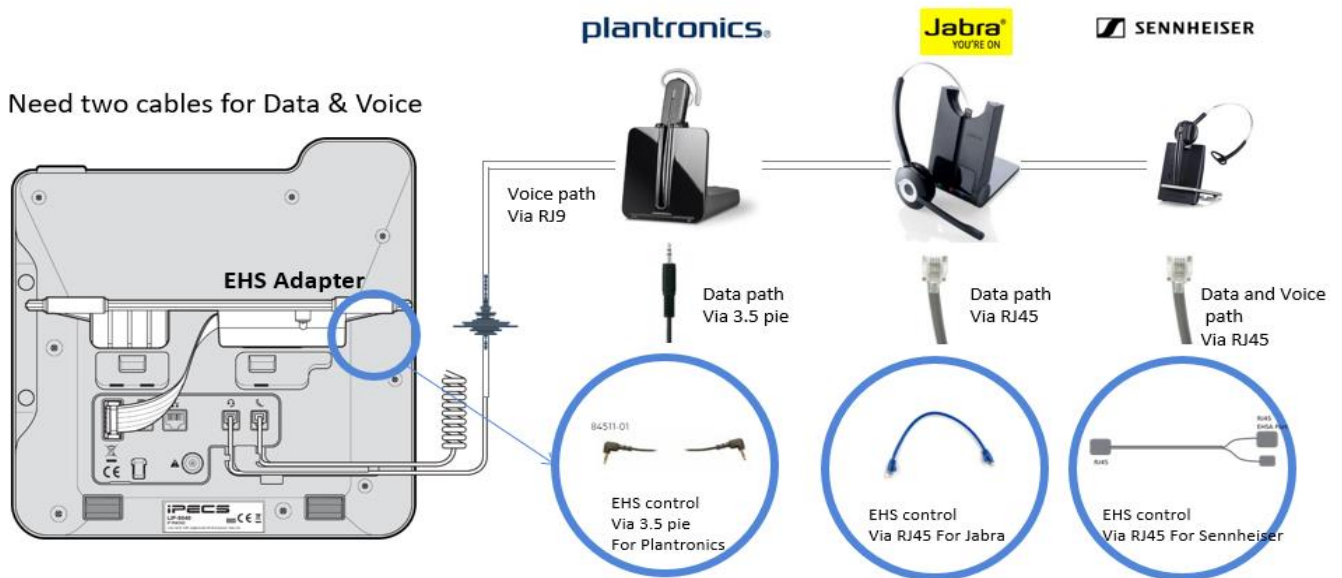


Figure 2 – Compatible Headset brands.

LED which be located on the left hands of the EHS Adapter indicate 5 kinds operation status.

LED color	(Ctrl) cation
White	The data transceiver is disconnected between Phone and EHS Adapter
RED	The link is disconnected or data communication is failed between Phone and EHS base set. If you experience this problem we suggest you turn Off the power of EHS Base and turn On again.
Green	indicates that the EHS Adapter protocol type is set with iPKTS, or EHS Base Set is in standby mode or during a call.
Blue	indicates that the EHS Adapter protocol type is set with SIP(1000i), or EHS Base Set is in standby mode or during a call.
Red <-> Blue	EHSA is trying to discover EHS

Figure 3 – LED indication.

Regulatory Approvals

The EHSA complies with all applicable Australian regulatory requirements.



Figure 4 – EHSA

2. INSTALLATION

Connecting the EHSA

- **Disconnect power** from the iPECS handset by removing the network cable if using POE (or the power adaptor if using a power supply unit).
- Connect the 4 wire (RJ11) audio cable that is supplied with the cordless headset. The cable is connected to the headset plug on the telephone and to the base station of the headset.
- Connect the signalling cable between the EHSA and the cordless headset base station.
 - For the Jabra™ headsets the enclosed 8 wire (RJ45) modular cable is used.
 - For the Plantronics™ use the enclosed 3.5mm jack audio cable.
- Connect the flat cable on the EHSA to the expansion socket on the side of the telephone. The **red marking** on the cord must be orientated upwards.

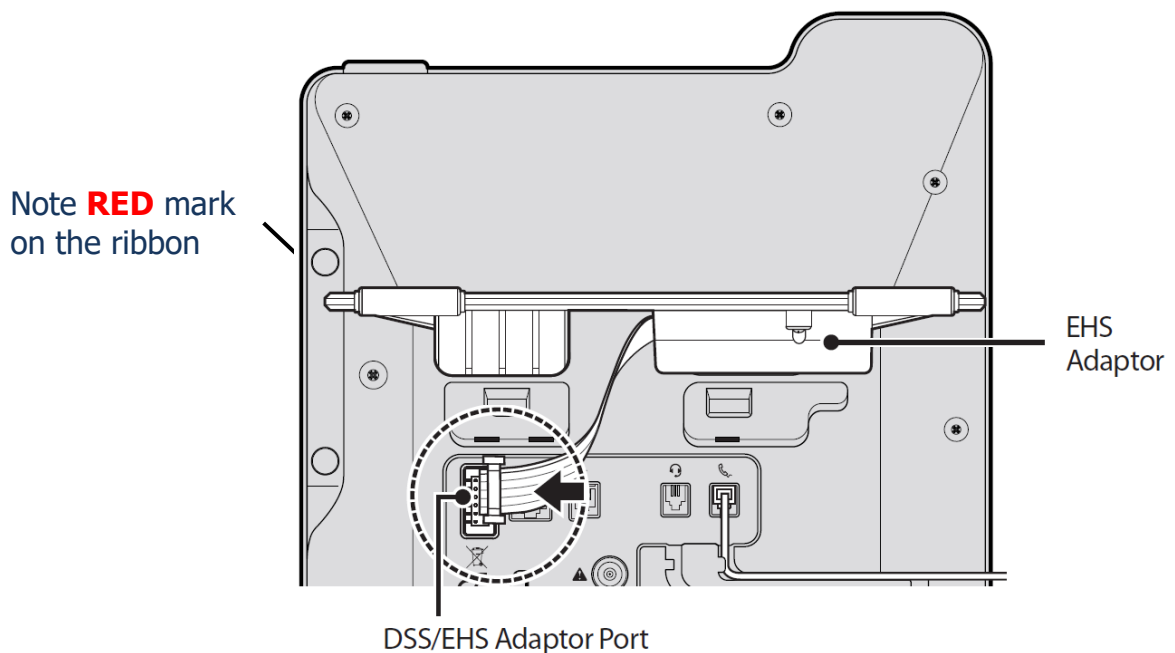


Figure 5.

- Now power the telephone back up.
- Ensure that the headset mode is enabled **by pressing: the Headset button.** (The LDP also has a **headset button**)
 - You don't need the TRANS XX codes but if you do there are two different codes for the 2 different types of handsets, LDP or LIP. Please use the correct code or use the headset button as mentioned above.

Note. Most cordless headsets require charging before use. This can be an ideal time to review the headset user guide.

Example, Refer to Q621 in detail.

Cabling (Plantronics EHS)



1. Plug 12pin flat cable into a phone.
2. Connect RJ9 cable between headset port on phone and Plantronics audio port.
3. Connect 3.5mm ear jack cable between EHS and base station.
4. Then, insert power plug

- A 3.5 mm jack cable comes with the EHS box

Figure 6.

Example using a LDP-9224DF and Plantronics

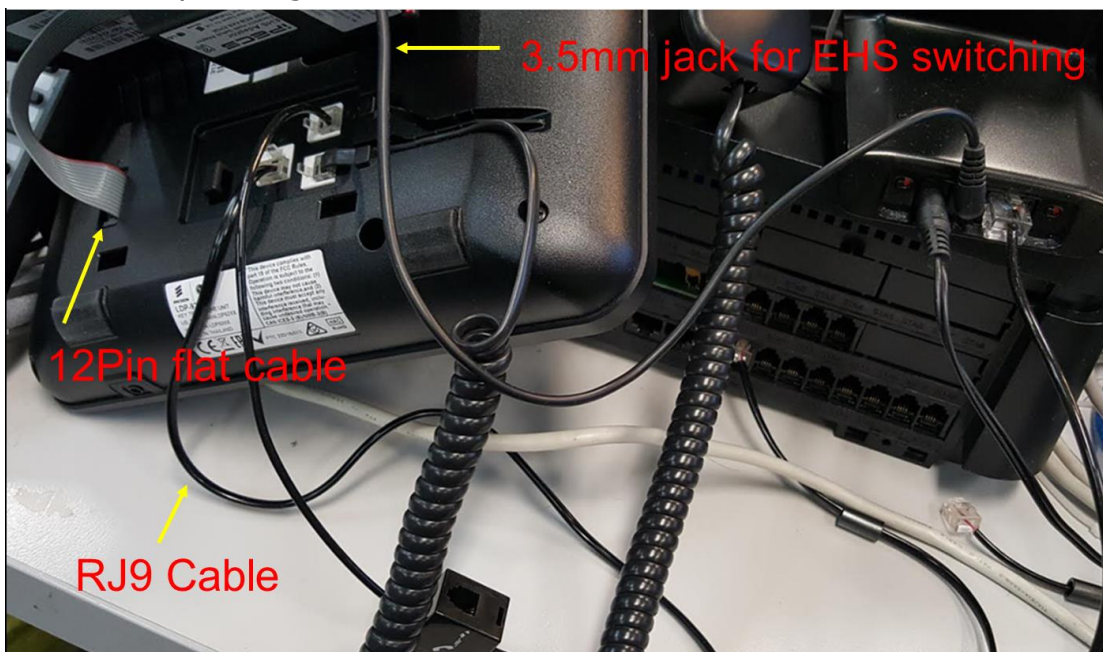


Figure 7.

Example, Refer to Q628 in detail

Cabling (Jabra EHS)



1. Plug 12pin flat cable into a phone.
2. Connect RJ9 cable between headset port on phone and Jabra audio port.
3. Connect RJ45 cable between EHS box and Jabra base station.
4. Then, insert power plug
 - RJ45 EHS cable comes with EHS box

Figure 8.

Example LDP-9224DF with a Jabra headset

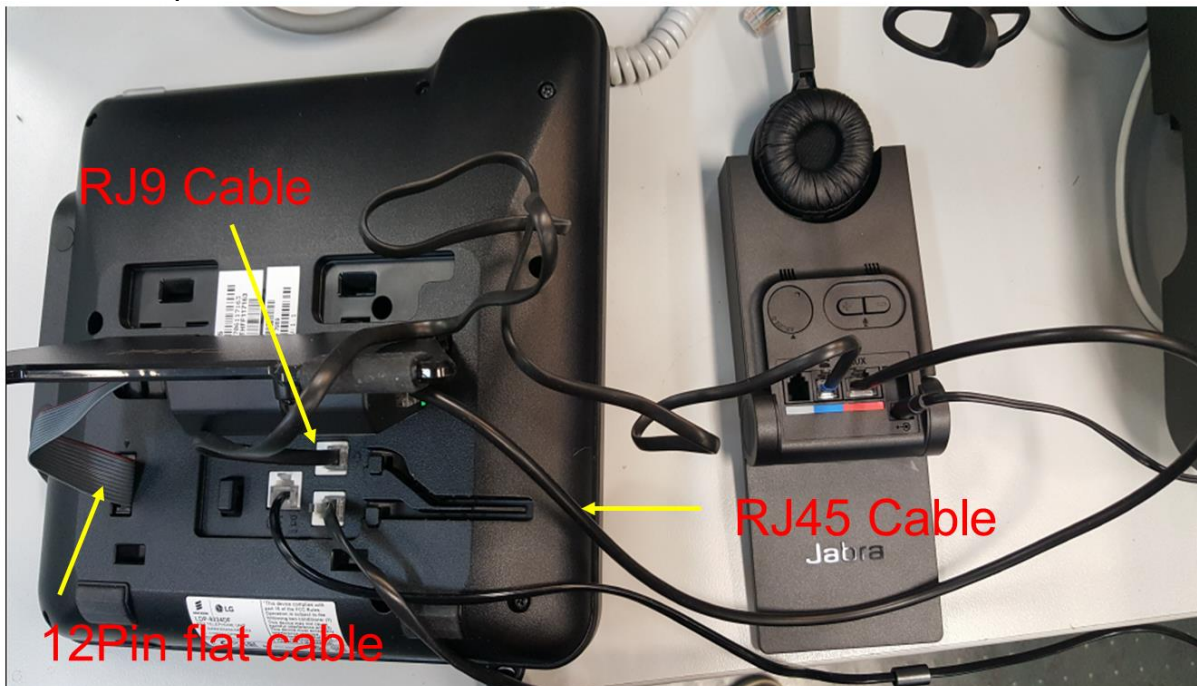


Figure 9.

Example, Refer to Q637 in detail

Cabling (Sennheiser)



Figure 10.

3. User Instruction

Receiving a call

- When an incoming call is ringing ring signalling will be heard through the headset earpiece.
- The call is answered by pressing the button on the headset or by pressing the speaker button on the telephone.
- The call is terminated by pressing the button on the headset or the telephone speaker button again.

Dialling out

- Press the button on the headset to turn the headset on.
- Dial the number and press the call button on the phone.
- To terminate the call, or after the other party hangs up, press the button on the headset again to turn the headset off.

Disclaimer

Specification and information regarding the product are subject to change without notice. All information is presented without warranty of any kind. Third party equipment specifications may change without notification to or from Aria Technologies.

If you are having technical difficulties with a headset please contact your point of sale or the vendor directly.

4. Conditions.

The EHS Adaptor should be connected to LDP-9240D/9224DF, LIP-9008/10/20/30/40/40C, and 1020i/1030i/1040i/1050i telephone through the DSS serial connector.

Limitation

- Therefore, if a DSS which has a 12 pin flat serial cable is fitted on a handset, the EHS adaptor can't be attached to the DSS.
- But, in case of EHSA S/W Version 2.0, the EHSA can be fitted on 1024idss or 1048ilss, thus the EHSA adaptor can be attached to the DSS.

Solution

To use the EHS adaptor on LIP-9000 series with DSS keysets, stand-alone DSS modules which have their own physical port should be used or clip-on DSS/LSS modules not using the serial flat cable.

- LIP-8040LSS *
- LIP-9012DSS
- LIP-9024DSS
- LIP-9024LSS

Further Solutions

- Upgrade 1000i Series Handsets with 1024idss or 1048ilss and use an EHSA that has S/W version 2.0.
- Upgrade the handset to a LIP-9071 which can use LIP-9048DSS

For this solution use an APU-75 (for Plantronics headsets), an Jabra Link 14201-30 (for Jabra Headsets), or Voyager UC instead of EHSA (or even other USB headset models).

- Plantronics HL10 / Jabra / Sennheiser headset lifter on 9000 series handsets (not on 1000i handsets)
- LDP-9224/40 with LDP-9248DSS
- Or revert to manual answer button (without EHS) if 9048DSS is a priority.


* **Tip:** When a stand-alone DSS is used, "serial DSS usage" in PGM111 should be turned off on the master station. See **KB-103** for more information regarding the LIP-8040LSS.

5. Troubleshooting.

- Upgrade system software and handset firmware as documented above.
- Check the EHSA user guide.
- Check the user settings as listed above.
- Check the headset user guide for the correct settings and battery levels.
- Try another model or brand of headset. Most models function quite differently and the current model may not be suitable for your customer.
- If you determine your EHS unit is faulty or needs upgrading please replace via the Aria Dealer EFD process.

- Try a replacement EHS unit especially if it is not the current version. See page 1 for the listing of the current version.

6. Specification.

Items		EHS Adaptor
		
H/W	CPU	Cortex M0
	Power	From Phone (5V, 3.3V)
	Voice I/F	None
	Phone Communication	DSS Port 14 Pin
	EHS I/F	3.5 Pie (Plantronics), RJ45(Jabra)
	EHS Type Selection	Auto Detection
M/D	Mounting	On the foot stand
	Wall Mount	Not support
S/W	Phone I/F protocol	iPKTS, SIP
	EHS Communication	Plantronics Serial Bus (PSB) Jabra UART Bus Sennheiser DHSG