

White Paper

Headset Support

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Background

All snom phones support headset devices. There are two types of connections:

- RJ connector (standard telecom handset connector)
- 3.5mm chinch connector (standard for PC audio cards)

Required specification for the headset: Microphone

Type: Electret

Sensitivity: - 38 dB to - 48 dB, 0dB=1V/Pa, at f=1kHz, Pin=1Pa

Supply voltage (Vs) & impedance (RL): 2 V – 3 V, 1.5 KOhm– 3 KOhm

Directivity: Omnidirectional

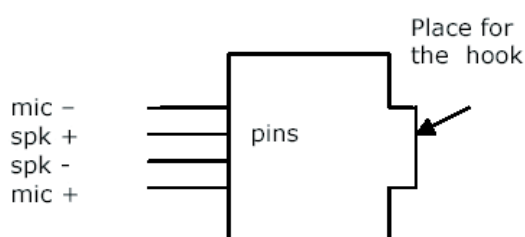
Speaker

Type: Dynamic receiver

Input impedance: 150 Ohm (+- 50 Ohm)

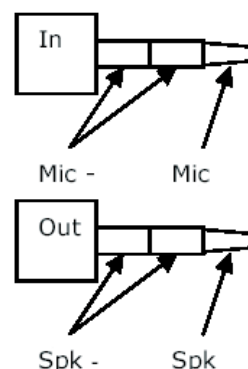
Frequency range: 20 Hz - 10 KHz

RJ pin connector layout



(for snom 360, 320, 190,
220, 200)

Chinch 3.5mm pin layout



(for snom 190, 220, 200, 105, 100)

Problems

- **I can hear on the head speaker(s) but my headset microphone is not working.**

1. Check if you really switched to headset mode. See White Paper: Using different audio devices.

2. (RJ connector only) Check the bottom cable that you use with your headset. There are two pin layouts for the mic - and mic + on the RJ connector. Headset suppliers support both layouts. For example: U10P-S is the right Plantronics bottom cable (QD) for the snom phone, RJ connector. GN Netcom QD cable for the snom phone: QD cable (ordering number): flat 8800-00-01; spiral 8800-01-06, RJ connector.

3. (RJ connector only) If your handset doesn't have a bottom cable then you have to replace the headset and get one with the correct microphone pin layout. See the pin layout for the RJ connector in the diagram, above.

4. (Chinch connector only) Mic - pin and Spk - pin are connected together having common ground connection. Snom190 and snom3xx use differential inputs for the speaker and the

microphone and this short circuit is not allowed. Check the specification for your headset and if it is possible check connectivity between spk – pin and mic – pin (no connection is correct).

- **I have a humming noise coming from my headset microphone when connected to the snom phone.**

1. To get rid of the humming noise use a shielded Ethernet connector which will provide ground connection (be sure that your switch/hub has the shielded connector connected to the ground).

2. If this option is not possible use your second PC port and connect it with your desktop PC with the shielded cable, if possible. The desktop PC Ethernet card is always grounded.

3. If solutions 1 and 2 are not possible, you have to use a headset with good preamp microphone circuitry, for example, Plantronics H51/A.

4. If you cannot implement the solutions offered in para 1-3, above, you need to buy a 3-pin, grounded power supply for the AC cable. Please, contact snom Sales for more details.

- **Speaker audio volumes are not loud enough or I have to use maximum speaker volume for on my headsets**

The headset type (usually with chinch) that you use has low speaker impedance, usually 32 Ohm or 16 Ohm (standard for the pc audio cards), and snom audio output is built for 100 Ohm – 150 Ohm output impedance. The workaround is to use firmware version 3.60b or later (applies for snom360, snom190, snom320).

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