



**Synway Voice Board Accessories**

**HandSet-JB**

**Handset Recording Adapter (4 Pins to 2)**

# **Hardware Manual**

**Version 1.1**

**Synway Information Engineering Co., Ltd**

**[www.synway.net](http://www.synway.net)**

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## Revision History

Version	Date	Comments
Version 1.0	2008-11	Initial publication
Version 1.1	2013-01	Add relative information about the wire length requirements.

**Note:** Please visit our website <http://www.synway.net> to obtain the latest version of this document.

# Chapter 1 Overview

Under some circumstances where analog recording boards are used to record digital phones or where analog lines cannot be connected in parallel, there is probably a need of recording through handset of phones. At present, most telephone handset interfaces are RJ11 (4P4C) jack. A telephone handset consists of two parts – headphone and microphone. 4 pins in an RJ11 jack respectively connect to 2 components, with different connection methods and polarity arrangements from various manufacturers. The Synway handset recording adapter HandSet-JB, used to convert 4 pins to 2 for recording purpose, is applicable to a great number of telephone models, satisfying the requirements of most users.

## 1.1 Features

- Equalizes and enlarges the volume of headphone and microphone for mix output.
- Uses a standard RJ11 jack for output, allowing connection with a variety of analog voice boards.
- Applicable to a plenty of analog and digital phone models.
- Optional between A-type and B-type via a transfer switch.

# Chapter 2 Installation

## 2.1 Connection Model

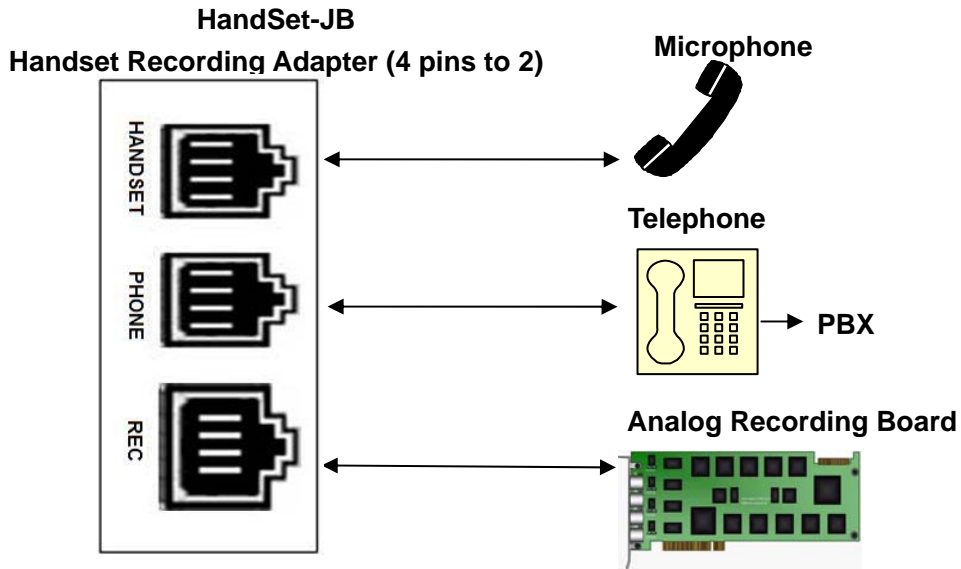


Figure 2-1 Connection Model

## 2.2 Hardware Structure

- HandSet-JB

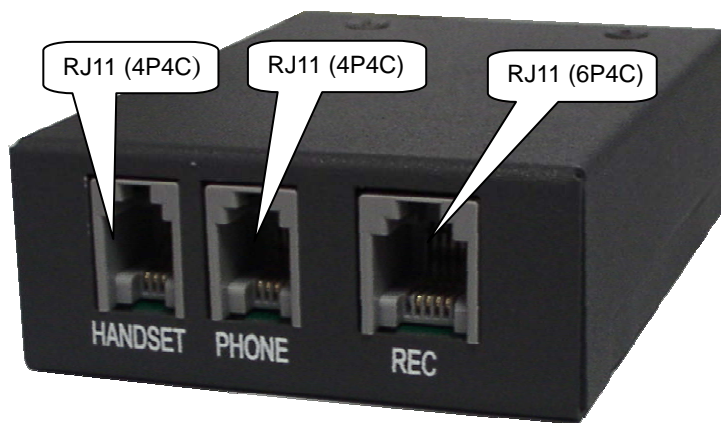


Figure 2-2 Front View

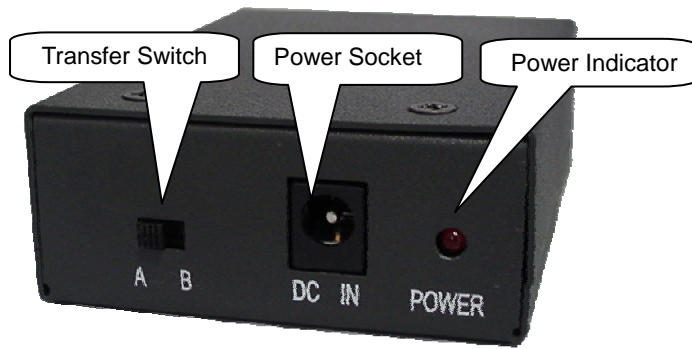


Figure 2-3 Rear View

● **Interface Definition**

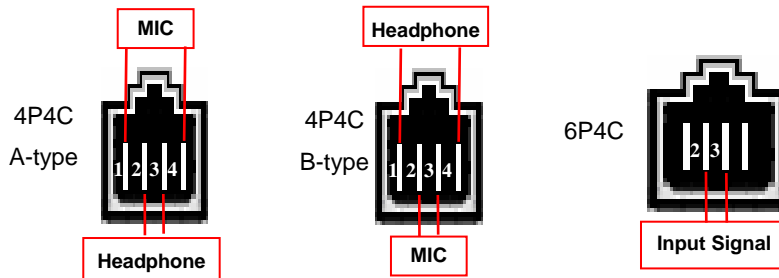


Figure 2-4 Interface and Connection

## 2.3 Installation Procedure

**Step 1: Set the transfer switch.**

As illustrated in Figure 2-4, for A-type 4P4C jack, the 2<sup>nd</sup> and 3<sup>rd</sup> pins correspond to incoming voices while the 1<sup>st</sup> and 4<sup>th</sup> pins to outgoing voices; for B-type 4P4C jack, quite the reverse, the 2<sup>nd</sup> and 3<sup>rd</sup> pins correspond to outgoing voices while the 1<sup>st</sup> and 4<sup>th</sup> pins to incoming voices.

In case you are not sure about the line connections in the handset, you may set the transfer switch to A-type at first to perform recording. If the recorded incoming and outgoing voices sound quite different in volume, that is, one is quite loud and the other rather low, then set the transfer switch to B-type.

For 6P6C jack, only the 2<sup>nd</sup> and 3<sup>rd</sup> pins are in use.

**Step 2: Connect input and output lines.**

As shown in Figure 2-1, connect the telephone and the microphone respectively to ‘PHONE’ and ‘HANDSET’ jacks. Use ordinary phone lines (6P4C RJ11) to connect with the ‘REC’ jack at one end and the analog voice board at the other end.

**Step 3: Turn on the power.**

Input applicable power supply and use the analog recording board to record voices once the

power indicator is on. Note that power socket is positive outside and negative inside.

## 2.4 Precautions

- This adapter can only be used indoors;
- Do not mix up the corresponding lines and pins in connection;
- When this adapter is powered off, the telephone can still be used normally, but no signals will be output through 'REC'.
- Always turn off the power before switching from A-type to B-type and vice versa.



# Appendix A Technical Specifications

## Dimensions

86mm x 61 mm x 26mm

## Weight

≈145g

## Environment

Operating temperature: 0 °C—55 °C

Storage temperature: -20 °C—85 °C

Humidity: 8%—90% non-condensing

Storage humidity: 8%—90% non-condensing

## Audio Jack

Handset jack: One RJ11 (4P4C)

Telephone jack: One RJ11 (4P4C)

Audio output jack: One RJ11 (6P4C)

## Power Interface

Interface: 6.5mm power socket (positive outside and negative inside)

Operating Voltage: 12V DC

Operating Current: ≤100mA

## Audio Specifications

Input impedance: ≥1MΩ DC, ≥100kΩ AC

Output impedance: 600Ω AC

Frequency response: 300-3400Hz (±3dB)

Signal-to-noise ratio: ≥38dB

## Wire Length

The wire used to connect each interface should meet the following length requirements:

HANDSET: L ≤ 2m

PHONE: L ≤ 2m

REC: L ≤ 100m

## Appendix B Technical/sales Support

Thank you for choosing Synway. Please contact us should you have any inquiry regarding our products. We shall do our best to help you.

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