

## Sipura SPA-3000 - 1 port VOIP phone adaptor with advanc...

Author:

[www.freespeech.co.uk](http://www.freespeech.co.uk)

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### Sipura SPA-3000 - 1 port VOIP phone adaptor with advanced Gateway features

This device allows you to use a standard analogue telephone for VOIP (Voice over IP). This device also allows you to connect an analogue telephone (PSTN) line to use as a backup phone line. This adaptor has advanced Gateway features to allow dial in through the regular landline to bridge the call via your VOIP account (for example, if a call is made from your mobile to your landline the SPA-3000 can answer and allow you dial over VOIP for a low cost international call). It can also be used in the opposite way for VOIP to PSTN bridging (for example, if you are using your VOIP phone abroad and want to dial over your home landline connection). The SPA-3000 is an advanced adaptor and can be tricky to configure, this guide only covers the basic setup to get you making and receiving calls. Refer to the manual for more advanced information or post to the forum.

The adaptor has the following connectors.

LINE - To connect your adaptor to a normal analogue phone (PSTN) line.

PHONE - To connect a regular telephone.

LAN - To connect to your router.

POWER - To power the device (5V DC).

[Product homepage](#)

*Please refer to the user manual for full details on connecting your phone and LAN connection.*

This guide is for configuring the phone connected (via FXS port) to the SPA-3000 to make and receive calls. This is known as Line 1 on SPA-3000.

**IMPORTANT:** Always confirm you are connected to the Internet before trying to setup your phone. An easy way to do this is visit a public web page from a PC connected to the same router as your Adaptor (like <http://www.freespeech.co.uk>).

### Logging on

Before you can configure the device you will need to connect a phone to the PHONE connector and have the LAN connector connected to your router.

Find out your IP address by dialing \*\*\*\* on the connected phone, then when prompted 110#.

Connect to the web configuration page by typing <http://<ip address>/admin/basic> (replace with your IP) into your browser navigation bar.

## Configuring Freespeech account

Select Line 1 from the menu. Configure as shown below. Make sure to select Submit All Changes when you are finished.

## Check you are online

Select Info from the main menu and scroll down to Line 1 Status. The Registration State should be Registered

**IMPORTANT:** If the state is Not Registered, refresh the page using the browsers refresh button. if your adaptor shows registered you should be able to pick up the phone and dial 1742 for an echo test. You should also be able to call your phone number from a landline or mobile.

### Problem solving

Typically problems are status 'Not Registered' (offline) and one way or no audio. These are almost always related to NAT (Network Address Translation). Here are some tips if you have problems. If your adaptor stays online for a period, then goes offline OR your incoming calls go to voicemail. Try using NAT keep alive as follows.

If you have problems getting online, one-way audio or your calls go to voicemail. Try using STUN as follows

(You'll also need NAT mapping active)

### Port forwarding

Some routers have problems with VOIP that can only be solved with port forwarding or placing in a DMZ (demilitarised zone). The following ports on your router will need to be forwarded to use the SPA-3000 (all UDP).

If you are only having audio problems then forward RTP ports (audio). You will need to forward the full range (16384 to 16482).

If you have problems going online then you will need to forward the SIP port for Line 1 (5060). There is also a SIP port for the PSTN line (5061).

Note: you should assign your SPA-3000 a static IP address from your router if using port-forwarding.

## Some useful regional settings

The SPA-3000 is set for USA by default, you may want to set up some of the UK regional settings. Set in advanced mode from the Regional menu.

Dial tone: 350@-19,440@-22;10(\*0/1+2)

Ring back: 400@-20,450@-20;\*(.4/.2/1+2,.4/2/1+2)

Busy tone: 400@-20;10(.375/.375/1)

Reorder tone: 400@-20;10(\*0/1)

SIT 1 tone: 950@-16,1400@-16,1800@-16;20(.330/0/1,.330/0/2,.330/0/3,0/1/0)

MWI dial tone: 350@-19,440@-22;10(.75/.75/1+2)

CWT1 cadence: 30(.1/2)

CWT2 cadence: 30(.25/.25,.25/.25,.25/5)

CWT frequency: 400@-10

Ring 1 cadence: 60(.4/.2,.4/2)

Ring 2 cadence (used for BT Call Sign): 60(1/2)

Ring 3 cadence (used for BT Ring Back): 60(.25/.25,.25/.25,.25/1.75)

Ring 4 cadence: 60(.4/.8)

Ring 5 cadence: 60(2/4)

Time Zone: GMT

FXS Port Impedance: 370+620||310nF

Caller ID Method: ETSI FSK With PR(UK)

PSTN Disconnect Detection

Detect CPC: yes

Detect Polarity Reversal: no

Detect PSTN Long Silence: yes

PSTN Long Silence Duration: 30

Min CPC Duration: 0.09

Detect Disconnect Tone: yes

Disconnect Tone: 400@-30;20(\*0/1)

International Control

FXO Port Impedance: 370+620||310nF

On-Hook Speed: 3ms (ETSI)

Current Limiting Enable: yes

Ring Validation Time: 256ms

Ring Indication Delay: 0

Ring Timeout: 128ms

