AX301 FXS TO FXO PORT CONVERTER

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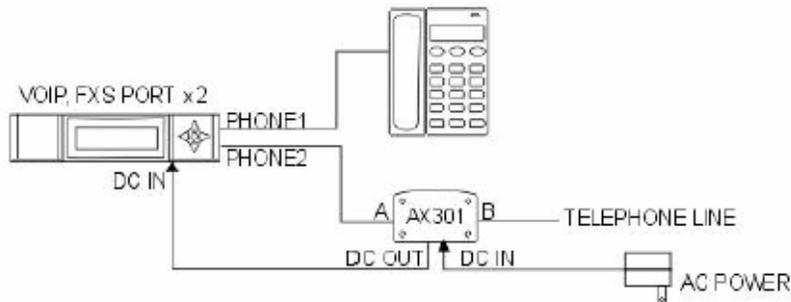
## AX301 Port Converter Connection

(a) Connect LINE 1 (L1) of AX301 to PHONE2 of VOIP, LINE 2 (L2) to the telephone line.

(b) If the VOIP use a DC power supply, you can remove the DC jack from VOIP, and plug it into DC IN jack of AX301. Then connect DC OUT to the VOIP with the DC power wire (included). The power range supported is between 9V and 20V, AC or DC, regardless of polarity.

(c) From the connection diagram above, the PHONE2 jack (an FXS port) of VOIP is supposed to connect to a telephone set. By installing AX301, it can connect to a telephone line, work as an FXO port.

(d) If there are 2 or more AX301 applied, user can share one DC power adaptor, and connect as below:
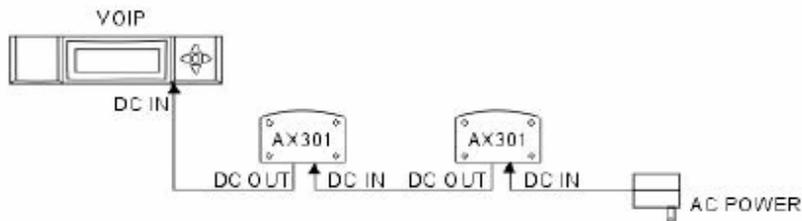
## One-Way/Two-Way Mode

(a) Slide the switch to L1->L2, it becomes to the one-way mode. AX301 will only answer the call from L1.

(b) When the switch is set at L1<->L2, both AX301 will answer calls from both L1 and L2 (two-way mode).
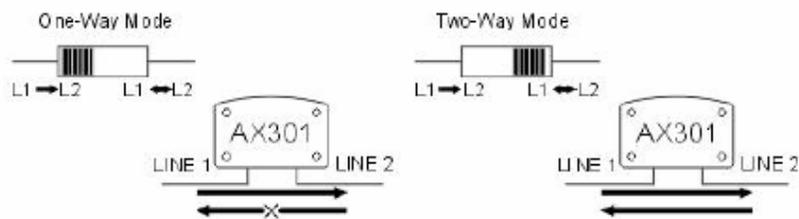
Tuning Busy Tone Frequency Detection

(a) The AX301 automatically release both lines when a busy tone is detected. As there are several busy tones in this world, so it is necessary to tune the detecting frequency before use.

(b) Connect the device according to the connection diagram above.

(c) Prepare a screw driver (must match the VR, variable resistor on the top side).

(d) Use the screw driver to push down the TEST button. Tuning the VR and observe the LED. When the red light comes complete light, the tuning is done.

Use a screw driver to tune the VR. Tune till the Tone Detector LED fully lights on
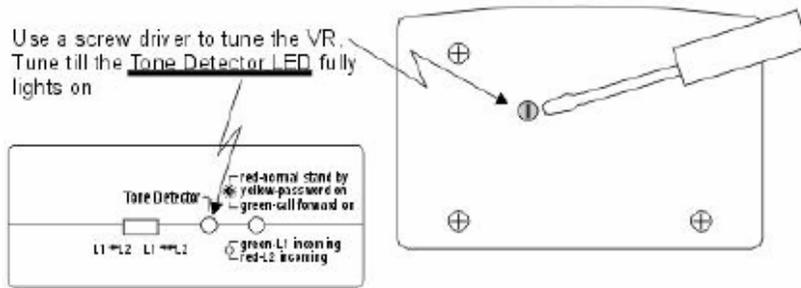
(e) After few seconds, the LED will flash, and hang up the line.

Operation and Indication
During idle mode, the LED blinks in different colors.
Red : Normal stand by
Yellow : L1 to L2 password enabled (refer to advanced feature)
Green : L1 to L2 auto call forwarding enabled (refer to advanced feature)

LINE 1 to LINE 2
(a) During normal stand by mode, when ring comes from LINE 1, LED becomes green, AX301 will auto engage the line, and connect it to LINE 2. The caller can hear the dial tone from LINE 2 and then make a call from this telephone line. If the number dial out is engaged, AX301 will cut the connection when busy tone is heard.
(b) When the caller wants to hang up LINE 2, press #, #. LINE 2 will be disconnected and then connect again after 1.3 seconds. User can make another call.
(c) If the caller hangs up the telephone, AX301 will recover to idle model, LED will blink again.
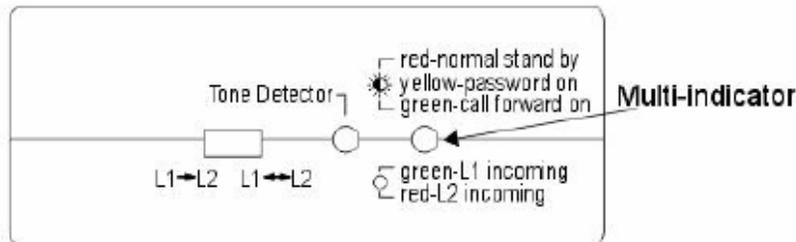
LINE 2 to LINE 1
(a) Under one-way mode, the call from LINE 2 will not activate AX301. Password and auto call forwarding features only effect for the call Line1 to Line2.
(b) Under 2-way mode, when ring comes from LINE 2, LED becomes red, AX301 will auto engage the line, and connect it to LINE 1. The caller can hear the dial tone from LINE 1 and then make a call from this telephone line. If the number dial out is engaged, AX301 will cut the connection when busy tone is heard.
(c) When the caller wants to hang up the LINE 1, press #, #. LINE 1 will be disconnected and then connect again after 1.3 seconds. User can make another call.
(d) If the caller hangs up the telephone, AX301 will recover to idle model, LED will blink in yellow again.

Advanced Feature Settings
(a) AX301 provide several powerful features. Uses can enable, disable and configure them by setting the feature parameters.
(b) The parameters are stored in flash memory, therefore the settings are permanent even after power failure.

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Setting Procedure
i.   Press # 1 # (you will hear a BEEP)
ii.   Press [Parameter Code] (you will hear a BEEP)
iii.   Key in the value
iv.   Press *# to save the value (you will hear a BEEP)
Repeat step 2 to 4 to set more parameters.

For example, to program parameter [01]=1234, and
[02]=8881234, procedure is:
Call any of the 2 lines (Line 1 or Line 2), when hear the dial tone,
1. Press # 1 # (you will hear a BEEP)
2. Press 01 (you will hear a BEEP)
3. Key in 1234
4. Press *# (you will hear a BEEP)
5. Press 02 (you will hear a BEEP)
6. Key in 8881234
7. Press *# (you will hear a BEEP)
Hang up the phone

Settings	Procedure
Password (for accessing Line2) Parameter [01]	This password is to prevent unauthorized access to VOIP or telephone line. When the password is set, all calls from Line 1 will need to key in the password first to access the dial tone of Line 2. You can set any password up to 8 digits. Parameter [01] Length: 1-8 Default Value: Null • When password is set, the multi indicator flash in YELLOW during idle state. • Password feature is invalid for Line2 to Line1
Auto Call Forwarding Parameter [02]	This feature allows all calls from Line 1, forward to another number (VOIP or PSTN) via Line 2. Parameter [02] Length: 1-26 Default Value: Null • When auto call forwarding feature is activated, the multi indicator flash in GREEN during idle state. • Auto call forwarding feature is invalid for Line2 to Line1 • You cannot program both password and auto call forwarding
Number of Ring before Auto Call Forwarding Parameter [11]	You can set the number of ring before AX301 makes auto call forwarding. Parameter [11] Length: 1 (from 1 ring to 9 rings) Default Value: 1
Maximum Call Duration Time Limitation Parameter [21]	Parameter [21] Length: 3 Unit: minute (from 001 ~999 minutes) Default Value: 000 (no limitation)

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Busy Tone Detection Condition Parameter [31]	There are 4 different conditions to detect the busy tone of both lines. If you already tune the frequency well, yet it hangs the line, or cut abnormally, you can set different detection condition, will improve the busy tone detection performance. Parameter [31] Length: 1 (only 1, 2, 3 and 4) Default Value: 1
DTMF Dialing Speed Parameter [78], [79]	When the auto call forwarding feature is activated, AX301 will dial out the pre-programmed number automatically. You can set up the speed of DTMF dialing. If the value of [78], [79] is smaller, it means faster dialing speed. Parameter [78] Definition: DTMF duration of each digit Length: 2 Unit: 10 milisecond Default Value: 06 (60 ms) Parameter [79] Definition: DTMF inter digit duration Length: 2 Unit: 10 milisecond Default Value: 06 (60 ms)

System Password Parameter [88]	To prevent the advance settings are changed by unauthorized person, you can set the system password. Once the password is set, you need to key in password when you want to program any parameter or to reset.
	Parameter [88]
	Length: 1-8
	Default Value: Null
	• If there is a password, the program procedure will become:
	  i. # 1 # password
	  ii. Key in parameter code
	  iii. Key in the value and *# (BEEP)
	• if the password is correct, you can hear a BEEP, then you can continue next steps, otherwise, BEEP will not be heard and you cannot program any parameter
	• If you forget the password, the unit must be sent back to the factory to reset.

Reset to Default Setting (RESET) Parameter [99]	To reset all parameters back to the default values, Parameter [99] Value: Not applicable Length: Not applicable Default Value: Not applicable Step: # 1 # (B) 99 (B) *# (B) • It is recommended to do reset before programming.