SIP MODULE

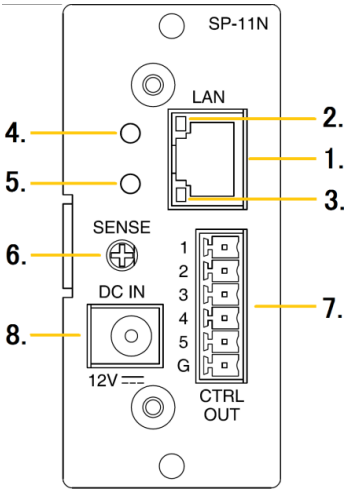
SP-11N

Please carefully follow the instructions in this manual to obtain the optimum results and to ensure long trouble-free use of your equipment.

1. GENERAL DESCRIPTION

The SP-11N is a VoIP phone paging module supported SIP (Session Initiation Protocol) with Auto-answer function. It can be connected with IP network and directly registered as one SIP phone station on various management software of SIP server. It also has VOX and mute functions designed for use with TOA's 9000M2, 900, 700 and BG-2000 series amplifiers.

2. NOMENCLATURE AND FUNCTIONS



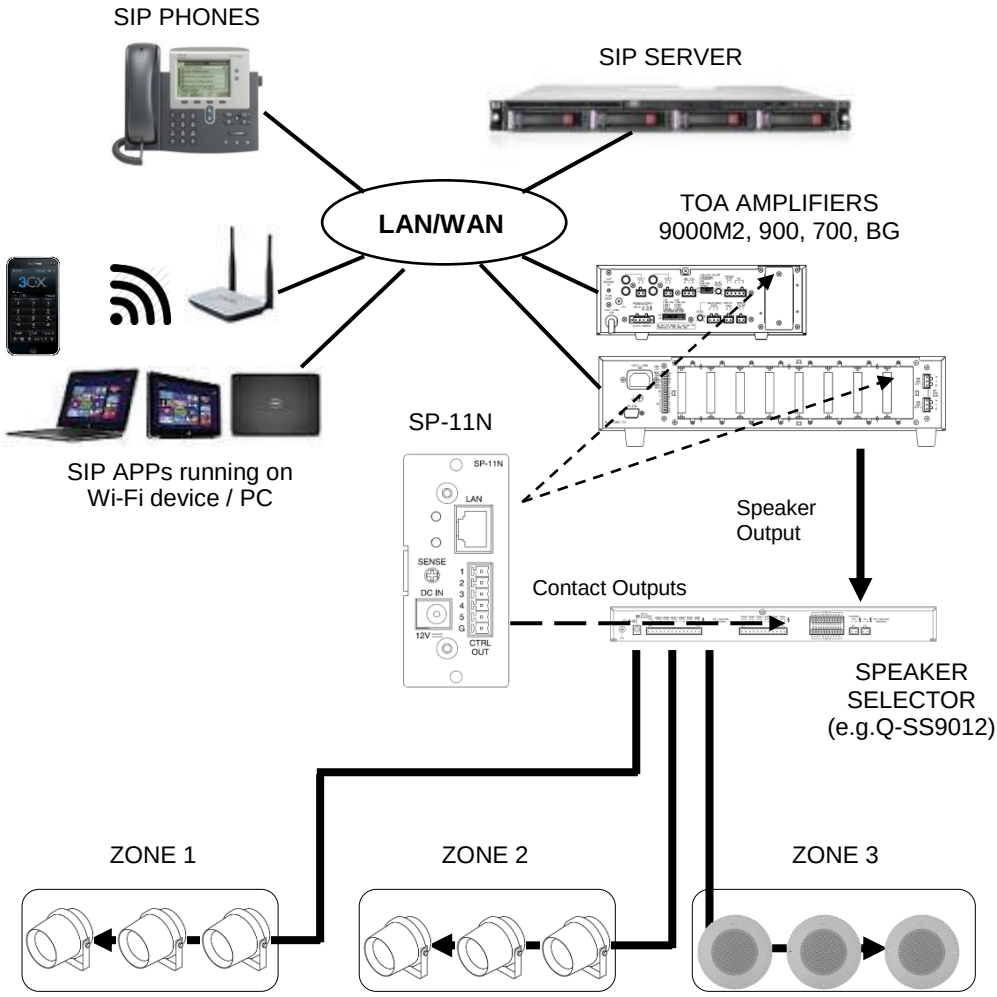
1. Network Connection terminal
   Can be connected with to a network of 10BASE-T/100BASE-TX in auto-sensing.
2. ACT indicator (yellow)
   Lights while transmitting or receiving the data.
3. LINK indicator (green)
   Lights when connected with a network.
4. STATUS indicator (green)
   Lights when working in normal operation.
5. ERROR indicator (red)
   Flashes during initialization or lights when an error happens.
6. VOX / MUTE Sensitivity Control
   Turn CCW to increase the dynamic sensitivity for VOX (Voice Operated Switch) or MUTE send, and CW to reduce it. (Factory preset: Fully CCW)
7. Control Output Terminal
   5 ports of open collector output (Withstand Voltage: 27V DC, Control current: 50mA Max.). Can be controlled via dial data from SIP phone during the paging.
8. AC adaptor Terminal
   Connect the AC adaptor (AD-1215P, or its equivalent) to this terminal.

⚠ CAUTION

Never shut down the power supply nor remove this AC adaptor's connector when the amplifier this module is inserted into is ready to output audio, as doing so, it may cause a noise, damage of speakers or amplifier, and hearing impairments.

3. SYSTEM CONFIGRATION EXAMPLE

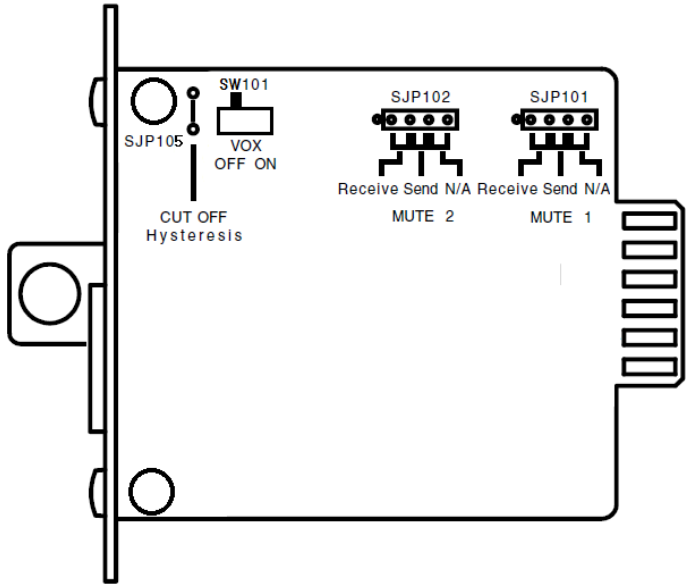
The system below is an example of “multiple zone paging system” initiated by SIP phone and other devices.



4. JUMPER AND SWITCH SETTINGS FOR VOX/MUTE FUNCTION

VOX (Voice Operated Switch) function:

When the level of input signal coming from phone system is the exceeded the threshold level adjusted by VOX/MUTE sensitivity control, the input signal goes into the amplifier. Using this function, user can avoid to have output of ambient noise around a paging station. And, user can start and finish paging only by the voice if there is a SIP call continuously connected.
This function can also turn on/off MUTE 1 or 2 bus of TOA 900 Series amplifiers, if the jumper is set to “SEND” position.



Designator	Setting
SJP105	Cutting the jumper disables hysteresis during VOX or MUTE send (if so set) operation.
SW101	OFF: Disables VOX. ON : Enables VOX.
SJP101 (for MUTE 1) SJP102 (for MUTE 2)	Rceive: This module is muted when the MUTE 1 or 2 bus is short-circuited by other module. Send: Mutes other modules connected to the MUTE 1 or 2 bus when the signal is input to this module. N/A: Mute function not applicable

5. NETWORK SETTINGS

SP-11N has a Web (HTTP) server function for setting.

Factory default settings:

SP-11N doesn't have any static IP address setting by factory default. "0.0.0.0"

When connected with the network with a factory default setting, using IPzator™* technology, the unit itself finds out the applicable IP address in the network segment automatically. If there is no network node included PC in the network, the unit may get a default IP address, for example "192.168.1.168/16".

After confirmation of self-assigned IP address, the unit starts to speak IP address setting towards inserted amplifier by SonicIP®* function.
Please connect PC with the same network and access that IP address using Web browser. For more details of settings, please see the help window on Web browser which you can access with "http://xxx.xxx.xxx.xxx".

Note
You can continuously use SonicIP®* function everytime turn on the power until you change the setting of this function to disabled from the setting window on Web browser.
But, after registration on your SIP server, please setup static IP address specifying the registered address.
Then, it may be preferable to turn off SonicIP®* function in order to avoid unnecessary paging.

6. SPECIFICATIONS

Power Source	AC Adaptor AD-1215P or its equivalent
Network Interface	RJ-45 connector 10BASE-T / 100BASE-TX, Auto-negotiation
Network Protocol	SIP (RFC3261), TCP. UDP, BOOTP, DHCP, RTP SNMP, ICMP, HTTP
Audio Format	G.711 u-law / a-law
Control Output	5 channels open collector output (Max. Voltage: 27V DC, Control current: 50mA Max.) Removable terminal block (6 pin)
Operating Temperature	-32°F (0°C) degree to 104°F (40°C) degree
Finish	Panel: Aluminum, Hairline finish
Dimensions	1.38"(W) x 3.07" (H) x 3.6"(D)
Weight	0.2lb (86g)

* IPzator™ is trademark and SonicIP® is registered by Barix AG