TOA

SIP VIDEO DOOR STATION   N-SP80VS1
SIP AUDIO DOOR STATION   N-SP80AS1
4 SIZE BACK BOX   YC-400

Thank you for purchasing TOA's N-SP80VS1 SIP Video Door Station and N-SP80AS1 SIP Audio Door Station. Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.
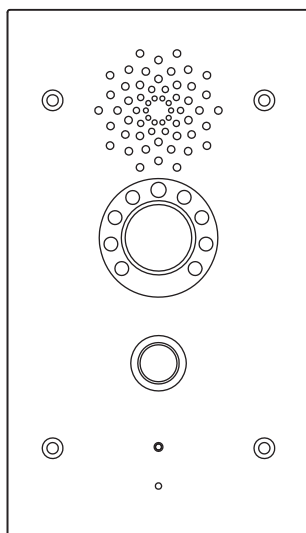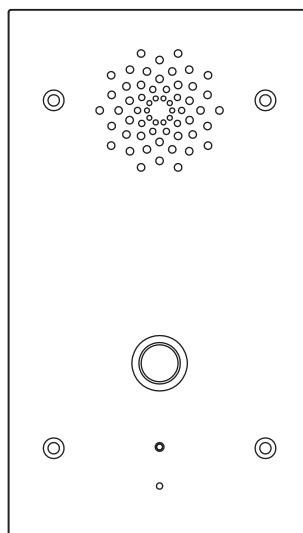
N-SP80VS1   N-SP80AS1

This is a quick manual for the N-SP80VS1 and N-SP80AS1.
Be sure to see the separate "N-SP80 Series Instruction Manual" before using the N-SP80VS1 and N-SP80AS1.
The latest version of the "N-SP80 Series Instruction Manual" can be downloaded from the TOA product data download site (https://www.toa-products.com/international/).

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1. SAFETY PRECAUTIONS

· Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
· Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
· After reading, keep this manual handy for future reference.

⚠ **CAUTION** Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

· Avoid touching the unit's sharp metal edge to prevent injury.

· Use the 12 V DC power supply and PoE switching hub for the unit. Note that the use of another adapter and PoE switching hub may cause a fire. (N-SP80VS1 and N-SP80AS1 only)

FCC REQUIREMENTS

Note
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

· Reorient or relocate the receiving antenna
· Increase the separation between the equipment and receiver
· Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
· Consult the dealer or an experienced radio/TV technician for help

Modifications
Any modifications made to this device that are not approved by TOA Corporation may void the authority granted to the user by the FCC to operate this equipment.

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2. GENERAL DESCRIPTION

The N-SP80VS1 and the N-SP80AS1 are door stations for use in the SIP (Session Initiation Protocol) Intercom system.
The door station is available in 2 models: the one with camera and the one without camera.
The station can be used not only in SIP server mode but also in peer-to-peer mode: the former enables the station to work by connecting to the SIP server and the latter enables it to work without using the SIP server.
In this manual, the N-SP80VS1 and the N-SP80AS1 are collectively described as the door station.

3. FEATURES

- Fully compliant with SIP.
- Connected to the network via Ethernet.
- Supports 2 ways of connection: Connection to the SIP server using SIP and peer-to-peer connection.
- Supports the following audio codecs: G.711, G.722, and G.729.
(Audio codec is fixed to G.722 when in peer-to-peer connection.)
- Can be powered by means of PoE or from the DC power supply unit.
- The camera incorporated in the door station with camera has 3 mega pixels, featuring the built-in infrared light that allows images to be taken at night.
- The built-in acoustic echo canceller ensures full duplex conversation.
- Equipped with a relay output function. Relay control can be performed from a multimedia station or other SIP telephones.
- Equipped with an external control input function. Different types of calling can be made when an external control switch is connected.
- Compatibility with CUCM obtained by Cisco systems.

- Easy conversations between stations even under high noise environment.

Note: Cisco Systems is a registered trademark of Cisco Systems, Inc. in the United States and certain other

countries

4. HANDLING PRECAUTIONS

The transmission quality of the internet is not always guaranteed.
Therefore, when this system is connected via the Internet, the following symptoms may happen when the network is congested.

- Packet loss
- Interruption of speech voice
- Generation of noise

5. NOMENCLATURE AND FUNCTIONS

· Designed for wall-recessed installation (YC-400 is required.)
· Hands-free (with AEC function) type
· Call button x 1, Relay output x 2, External control input x 2
· PoE compatible (IEEE802.3af compliant)
· Equipped with a camera, luminance sensor, and infrared light (N-SP80VS1 only)

[Front]
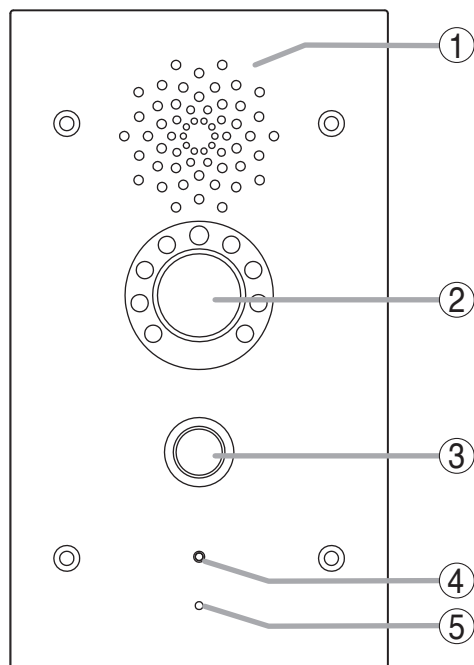
The figure shows the N-SP80VS1.

1. Speaker
Outputs speech voice from the partner station during conversation.

2. Camera (N-SP80VS1 only)
A built-in camera with 3 mega pixels.
Used when making conversation with a multimedia station.

3. Call button
Press this button to start conversation.
Pressing this button will call the preset partner station.

4. Operation indicator
Lights or flashes during conversation or during a call from this door station.
(The indication color and when the indicator lights or flashes can be changed by the setting.)

5. Microphone
Picks up the speaker's voice during conversation, which is then sent to the partner station.

[Rear]
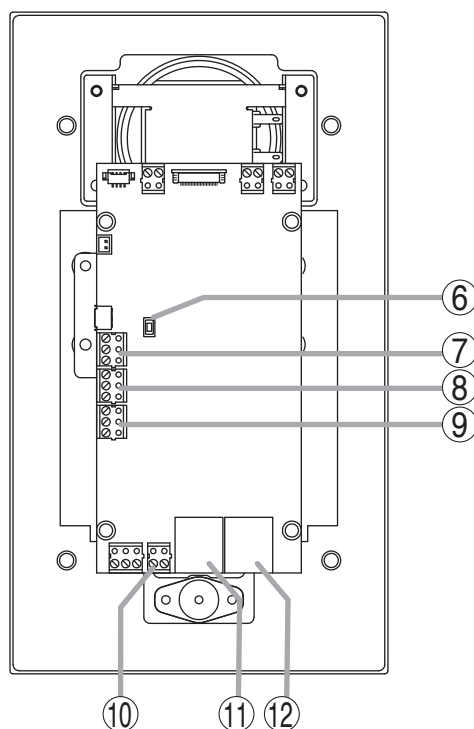
The figure shows the N-SP80VS1.

6. Reset button
Press this button to restart the station.
Holding down this button for 5 seconds or more restarts the door station in the default state. (The settings data will be initialized.)

7. External control inputs 1 and 2
A special calling can be performed by connecting an external control switch or sensor output to this terminal.

8. Relay 1 connection terminal
The relay output can be controlled by the specific dial code from the partner station during conversation. Used to unlock the nearby door. (An appropriate dial code can be set.)

9. Relay 2 connection terminal
Has the same function as the Relay 1 connection terminal (8).

10. DC power input terminal
The door station can be operated by inputting 12 V DC to this terminal.

11. Ethernet connection terminal
Used when connecting to the network.

12. Ethernet connection terminal (PoE compatible)
Used when connecting to the network.
Power can be supplied when this terminal is connected to the PoE switching hub.

6. INSTALLATION

The door station is designed to be mounted into the wall in conjunction with the YC-400 Wall recessed 4 size back box. For mounting, follow the procedure below.

Step 1. Remove a knockout hole in the YC-400.
Before mounting the YC-400 into the wall, punch out the knockout hole with a screwdriver or other tool to make a cable entry hole.

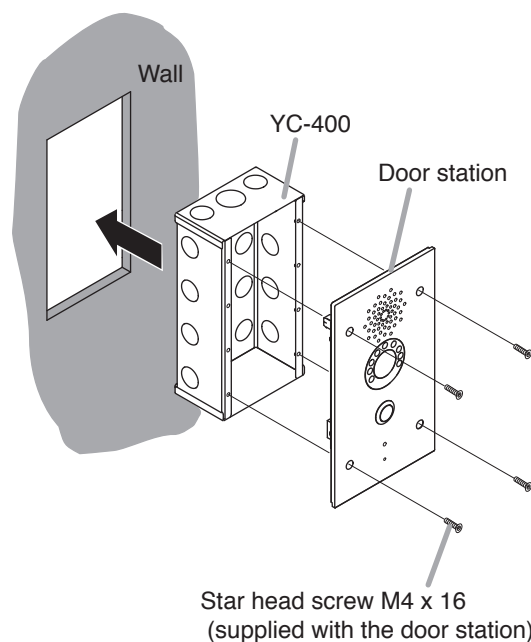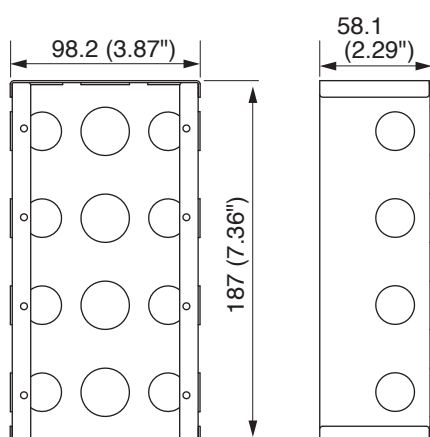**Step 2.** Make a mounting hole in the wall such as a gypsum board, then mount the YC-400 into the wall.

Tip
Install the YC-400 at the appropriate height from the floor (approx. 1.5 m or 5 ft).
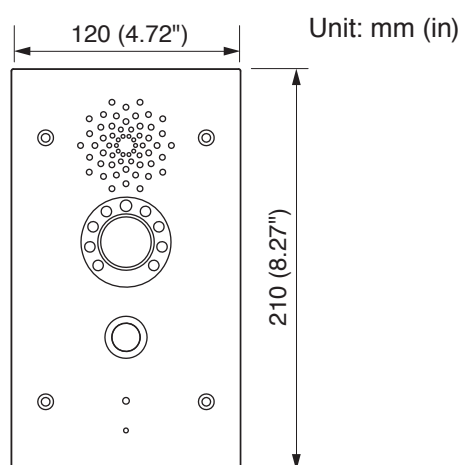
[YC-400 dimensional drawing]

[Front]   [Side]

Unit: mm (in)

98.2 (3.87")   58.1 (2.29")

187 (7.36")

[Door station dimensional drawing]

Note
The N-SP80VS1 and the N-SP80AS1 have the same dimensions.

120 (4.72")   Unit: mm (in)

210 (8.27")

Wall

YC-400

Door station

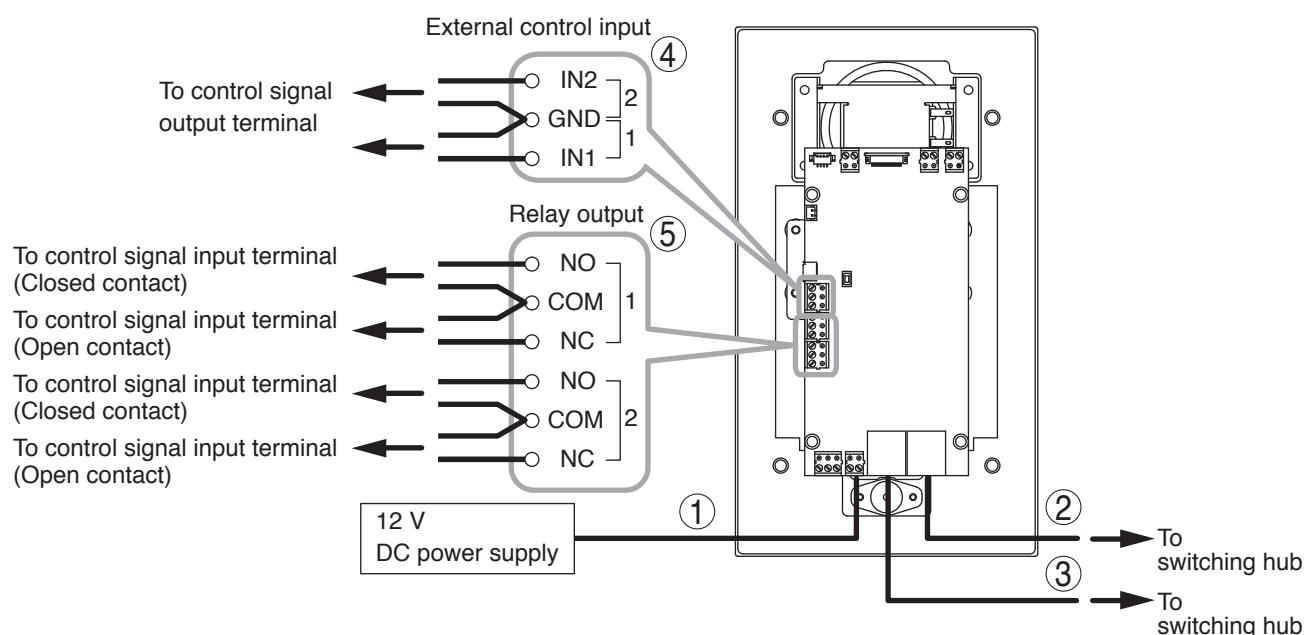Star head screw M4 x 16
(supplied with the door station)

Step 3. Run the connection cable through the cable entry hole in the YC-400, then connect it to the door station.

Step 4. Secure the door station to the YC-400.
Use the screws supplied with the door station and the star head screwdriver.

7. CONNECTION

[Power supply connection]

Power is supplied from the 12 V DC power supply or the PoE-compatible switching hub.
For the power supply from the switching hub, see below "2. Ethernet connection terminal."

1. DC input terminal

Connect the 12 V DC power supply to this terminal. This terminal has no polarity. Connect the "+" and "−" cables to each terminal.
Prepare the 12 V DC power supply separately.

Tip

If both the 12 V DC power supply and the PoE switching hub are connected, the power will be supplied from the one that has started feeding first.

[Switching hub connection]

2. Ethernet connection terminal (PoE compatible)

Connect this terminal to the 100BASE-TX-compatible network.
Use the Ethernet RJ-45 connector for connection.

As this terminal can be connected to PoE switching hub, power can be supplied from the PoE switching hub when this terminal is connected to it.
In this case, use the switching hub meeting the following specification.

Specification of the usable PoE switching hub: IEEE802.3af compliant

> ⚠ **CAUTION**
>
> When power is supplied from the PoE switching hub, be sure to use the one meeting the specified specification.
> The use of the switching hub other than the specified one may cause a fire.

Tip

If both the 12 V DC power supply and the PoE switching hub are connected, the power will be supplied from the one that has started feeding first.

3. Ethernet connection terminal

Connect this terminal to the 100BASE-TX-compatible network.
A PC can also be connected to this terminal when performing various settings.
Use the Ethernet RJ-45 connector for connection.

Note

This terminal is not PoE-compatible.

[Other connections]

4. External control input terminal*

No-voltage make contact, Open voltage: 30 V DC, Short-circuit current: 10 mA, Short-circuit duration: 200 ms or more
Connect such a device that outputs the control signals as an external control switch or sensor to this terminal.
Two channels of the control signals can be applied. The table below shows the combination of the terminals.

	Combination of the terminals
Control input 1	IN1 and GND
Control input 2	IN2 and GND

5. Relay connection terminals 1 and 2*

Contact type: Relay contact output, Contact capacity: 30 V DC, 0.5 A
Connect the device that is controlled by the relay output such as an electric lock to this terminal.
Two channels of the control signals can be output. Also, a closed contact or open contact can be selected for each signal depending on the terminal to be connected.
The table below shows the combination of the terminals.

	Combination of the terminals	
	When the closed contact is selected	When the open contact is selected
Relay output 1	Relay output 1's NO and COM	Relay output 1's NC and COM
Relay output 2	Relay output 2's NO and COM	Relay output 2's NC and COM

Note
Never connect any devices to both the closed contact and open contact terminals of the same relay output at the same time, as this could result in the unit failure.

* To use these terminals, you need to make the system setting on the browser.
For the details, see the separate "N-SP80 Series Instruction Manual."
The latest version of the "N-SP80 Series Instruction Manual" can be downloaded from the TOA product data download site (https://www.toa-products.com/international/).

8. SYSTEM SETTING USING A BROWSER

A browser is required to access the system settings to activate unit.

Verified browsers (Version): Microsoft Edge (38.14393.1066.0)
Google Chrome (Version 63.0.3239.132)
Firefox (Version 58.0.2)

Connect to the unit's Web server by using the IP address.
The default IP address is 192.168.1.102. (Subnet mask is 255.255.255.0.)
When using the default IP address, enter "http: //192.168.1.102" to establish the connection.
Holding down the call button for 5 seconds or more within 5 minutes after power-on, the IP address can be confirmed in voice.
For the details, see the separate "N-SP80 Series Instruction Manual."
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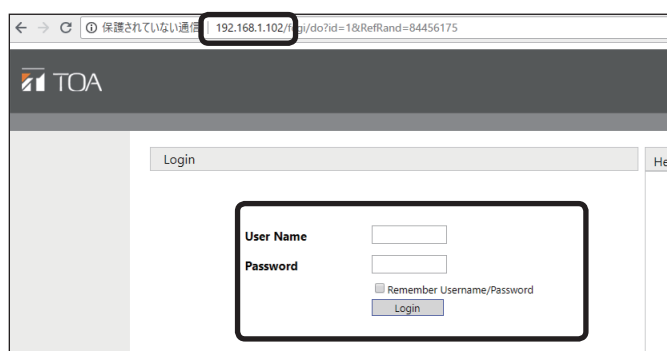User name and password settings are as follows.

User name: N-SP80
The user name is fixed. It cannot be changed.
Password: guest (default setting)
The password can be changed.
Enter it with up to 63 characters.

Notes
• Unusable characters : &, %, ', =
• Password is case-sensitive.

URL: https://www.toa.jp/

TOA Corporation

133-06-00041-02