

## 8201 SIP PoE Intercom FW Version 1.5

### Installation & Configuration



#### Order Codes

**8201** SIP PoE Intercom

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## **Important Safety Information**

This product is powered by a certified limited power source (LPS), Power over Ethernet (PoE); through CAT5 or CAT6 connection wiring to an IEEE 802.3af compliant network PoE switch. The product is intended for installation indoors or on outdoor perimeter of a building. If used in an outdoor environment, additional protective measures must be taken according to the installation manual. All wiring connections to the product must be in the same building. If the product is installed beyond the building perimeter or used in an inter-building application, the wiring connections must be protected against overvoltage / transient. Algo recommends that this product be installed by a qualified electrician.

If you are unable to understand the English language safety information then please contact Algo by email for assistance before attempting an installation [support@algosolutions.com](mailto:support@algosolutions.com).

## **Consignes de Sécurité Importantes**

Ce produit est alimenté par une source d'alimentation limitée certifiée (alimentation par Ethernet); des câbles de catégorie 5 et 6 joignent un commutateur réseau à alimentation par Ethernet homologué IEEE 802.3af. Le produit est conçu pour être installé à l'intérieur ou dans une zone adjacente à un édifice; selon le manuel d'installation, des mesures de sécurité additionnelles s'avèrent alors nécessaires. Tout le câblage rattaché au produit doit se trouver dans le même édifice. Si le produit est installé au-delà du périmètre de l'édifice ou utilisé pour plusieurs édifices, le câblage doit être protégé des surtensions transitoires. Algo recommande qu'un électricien qualifié se charge de l'installation de ce produit.

Si vous ne pouvez comprendre les consignes de sécurité en anglais, veuillez communiquer avec Algo par courriel avant d'entreprendre l'installation au [support@algosolutions.com](mailto:support@algosolutions.com).

## **Información de Seguridad Importante**

Este producto funciona con una fuente de alimentación limitada (Limited Power Source, LPS) certificada, Alimentación a través de Ethernet (Power over Ethernet, PoE); mediante un cable de conexión CAT5 o CAT6 a un conmutador de red con PoE en cumplimiento con IEEE 802.3af. El producto se debe instalar en lugares cerrados o en el perímetro de un edificio al aire libre. Si se utiliza en un ambiente al aire libre, se deben tomar medidas de protección adicionales de acuerdo con el manual de instalación. Todas las conexiones cableadas al producto deben estar en el mismo edificio. Si el

producto se instala fuera del perímetro del edificio o se utiliza en una aplicación en varios edificios, las conexiones cableadas se deben proteger contra sobretensión o corriente transitoria. Algo recomienda que la instalación de este producto la realice un electricista calificado.

Si usted no puede comprender la información de seguridad en inglés, comuníquese con Algo por correo electrónico para obtener asistencia antes de intentar instalarlo: [support@algosolutions.com](mailto:support@algosolutions.com).

## **Wichtige Sicherheitsinformationen**

Dieses Produkt wird durch eine zertifizierte Stromquelle mit begrenzter Leistung (LPS – Limited Power Source) betrieben. Die Stromversorgung erfolgt über Ethernet (PoE – Power over Ethernet). Dies geschieht durch eine Cat-5-Verbindung oder eine Cat-6-Verbindung zu einer IEEE 802.3af-konformen Ethernet-Netzwerkweiche. Das Produkt wurde konzipiert für die Installation innerhalb eines Gebäudes oder außerhalb eines Gebäudes. Bei der Anwendung außerhalb eines Gebäudes müssen zusätzliche Schutzmaßnahmen gemäß der Gebrauchsanweisung durchgeführt werden. Alle Kabelverbindungen zum Produkt müssen im selben Gebäude bestehen. Wenn das Produkt jenseits des Gebäudes oder für mehrere Gebäude genutzt wird, müssen die Kabelverbindungen vor Überspannung und Spannungssprüngen geschützt werden. Algo empfiehlt das Produkt von einem qualifizierten Elektriker installieren zu lassen.

Sollten Sie die englischen Sicherheitsinformationen nicht verstehen, kontaktieren Sie bitte Algo per Email bevor Sie mit der Installation beginnen, um Unterstützung zu erhalten. Algo kann unter der folgenden E-Mail-Adresse erreicht werden: [support@algosolutions.com](mailto:support@algosolutions.com).

## **安全须知**

本产品由认证的受限电源（LPS），以太网供电（PoE），通过CAT5或CAT6线路联接至IEEE 802.3af兼容的PoE网络交换机供电。本产品适用于室内或建筑物周边安装。如用于室外环境，必须按照安装手册采用附加的保护措施。所有联接本产品的线路必须源自同一建筑物。本产品如需用于超出建筑物周边范围或跨建筑物的安装，线路联接部分必须有过压和瞬态保护。Algo建议本产品由专业电工安装。

如果您对理解英文版安全须知有问题，安装前请通过电子邮件和Algo联系，[support@algosolutions.com](mailto:support@algosolutions.com)。

## Important Safety Information



### EMERGENCY COMMUNICATION

If used in an emergency communication application, the 8201 SIP PoE Intercom should be routinely tested. SNMP supervision is recommended for assurance of proper operation. Contact Algo for other methods of operational assurance including the use of the integrated microphone for automated "sound to air" acoustic testing.

### WET OR OUTDOOR ENVIRONMENTS

The 8201 SIP PoE Intercom is intended for indoor or outdoor locations and may be subjected to spray or weather provided the rear wiring cavity is properly sealed to prevent water ingress.

Gaskets included with the 8201 SIP PoE Intercom may be effective against water ingress on some, but not all surfaces in which case additional protective measures must be taken such as a perimeter sealant.

**CAT5 or CAT6 connection wiring to an IEEE 802.3af compliant network PoE switch must not leave the building perimeter without adequate lightning protection.**

**When the Intercom is connected to wiring that exits the building, there is potential risk of lightning induced electrical surges or high voltages from fault conditions. To reduce risk, outdoor wiring should be protected by Earth grounded conduit whenever possible. Relay input and output connections must not leave the building perimeter without adequate lightning protection.**

## About the Algo SIP 8201 SIP PoE Intercom

Ideal for secure business entrances, emergency intercoms, and residential gates, Algo's 8201 SIP PoE Intercom provides hands-free intercom capability, entrance security with door unlock control, rugged weatherproof design, and superior audio performance.

Fully compatible with SIP industry standards, the 8201 SIP PoE Intercom will work with most hosted or enterprise SIP-base servers supporting third-party SIP endpoints.

The 8201 SIP PoE Intercom is configured using central provisioning features or by accessing a web interface using browsers such as Google Chrome, Firefox, or Internet Explorer.

### What is Included

- 8201 SIP PoE Intercom
- Gaskets

### What is not Included

- Optional 8061 IP Relay Controller

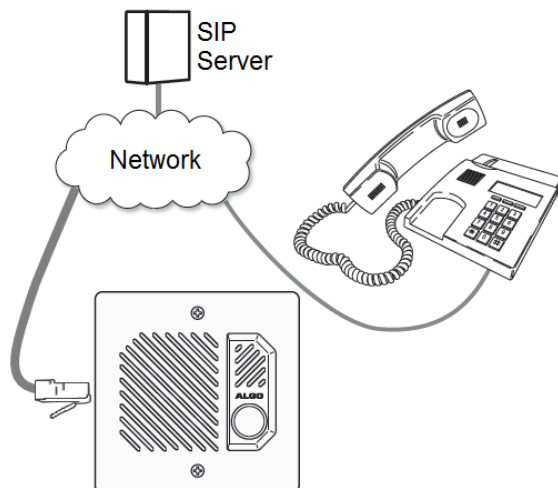


## Getting Started - Quick Install & Test



*This guide provides important safety information which should be read thoroughly before permanently installing the intercom.*

1. Connect the 8201 SIP PoE Intercom to an IEEE 802.3af compliant PoE network switch. The blue call button on the front will turn on. After about 30 seconds, a beep will signal the completion of the boot process.
2. After the boot is complete, press the blue call button on the 8201 to hear the IP address. (Once the SIP Server field is populated in the 8201 web interface, the call button will contact the preconfigured extension when pressed.) The IP address may also be discovered by downloading the Algo locator tool to find Algo devices on your network:  
[www.algosolutions.com/locator](http://www.algosolutions.com/locator)



3. Access the 8201 SIP PoE Intercom web page by entering the IP address into a browser (Chrome, IE, Firefox etc) and login using the default password **algo**.
4. Enter the IP address for the SIP server into the SIP Domain field under the **BASIC SETTINGS > SIP** tab.
5. Enter the SIP Extension, Authentication ID, and Password. Also enter the target Dialing Extension that the Intercom will call.
6. Press the call button on the 8201 Intercom, then answer the phone and communicate over the Intercom. Press the digit 6 on the phone keypad to activate the door control relay for three seconds (if applicable).

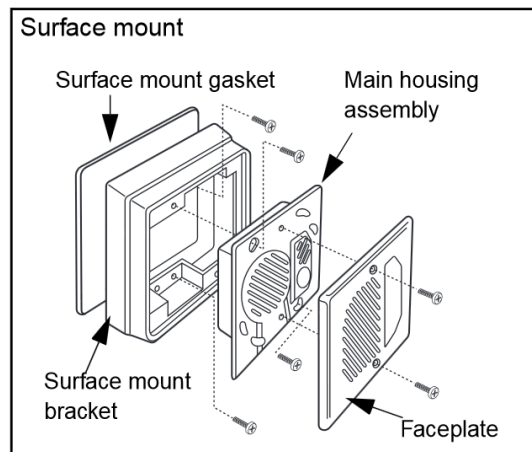
## Installation

The 8201 SIP PoE Intercom is weather protected for outdoor installation. However if network cabling extends beyond the perimeter of the building then adequate lightning protection is required to protect the cabling and network switch from lightning surges. No lightning protection is required by UL or CSA if the 8201 SIP PoE Intercom is located on the outside wall of a building and the wiring is inside the perimeter of the building.

1. Remove the 8201 SIP PoE Intercom faceplate
2. Determine if you want a flush or surface mount installation

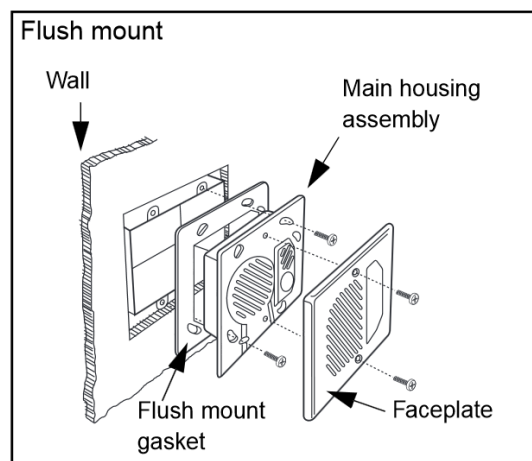
For surface mount:

- Discard the flush mount gasket.
- Verify the correct orientation of the surface mount gasket.
- Thread the wires through the center hole, then through the surface mount bracket.
- Fasten the surface mount bracket at the desired location on the wall



For flush mount:  
(into an electrical box embedded in the wall)

- Discard the surface mount gasket and bracket.
- Slide the flush mount gasket onto the main housing assembly.



## Web Interface

The 8201 SIP PoE Intercom is configurable using the web interface or provisioning features.

After boot up, the speaker will beep and the intercom will have obtained an IP address. If there is no DHCP server the 8201 SIP PoE Intercom will default to the static IP address **192.168.1.111**.

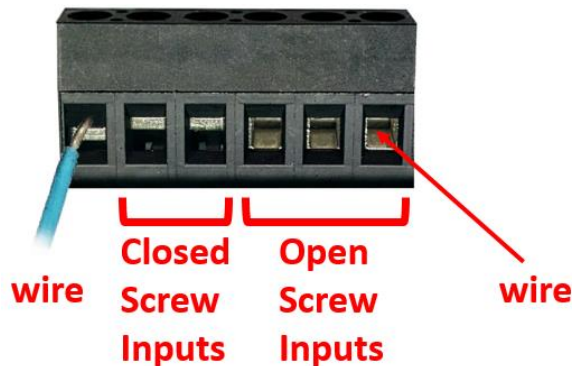
Before the 8201 is configured, the call button on the front can be pressed to play the IP address over the speaker. (Once the SIP Server field is populated on the 8201 web interface, the call button will contact the preconfigured extension when pressed.) The IP address may also be discovered by downloading the Algo locator tool to find Algo devices on your network: [www.algosolutions.com/locator](http://www.algosolutions.com/locator)

Enter the IP address (e.g. 192.168.1.111) into a browser such as Google Chrome, Firefox, or Internet Explorer (other than IE9). The web interface should be visible and the default password will be **algo** in lower case letters.

## Wiring Connections



*Note: The screw inputs by default are closed to prevent vibration when the speaker is active. To use, open the desired input using a screw driver, insert the wire, and close the input again. Ensure that other inputs remain closed if they are not in use.*



## Network Connection

Connect RJ45 jack from PoE network switch or non-PoE network and 48V 350 mA IEEE 802.3af compliant power injector.

There are two lights on the Ethernet jack:

**Green light:** On when Ethernet is working, flickers off to indicate activity on the port.

**Amber light:** Off when successful 100Mbps link is established. Typically on only briefly at power up.

Under normal conditions, the Amber light will turn on immediately after the Ethernet cable is first connected. This indicates that PoE power has been successfully applied. Once the device connects to the network, it will switch to the Green light instead, which will typically flicker indicating traffic on the network.

## **Door Control**

Provides both normally open and normally closed relay contacts.

## **Serial Control**

**\*\*Coming Soon\*\***

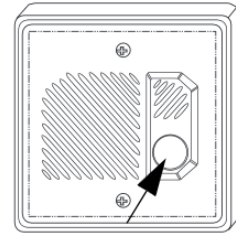
## **Door Sensor (Dry Contact Input)**

It can be configured as an auxiliary Call Button input. Additional features coming soon.

## Blue Call Button

The call button light will be steady during power up and when the intercom is idle.

When making a call, the call button light will flash rapidly, while the call is ringing at the far-end phone. Once the call is answered, the flashing will slow down.



Call button

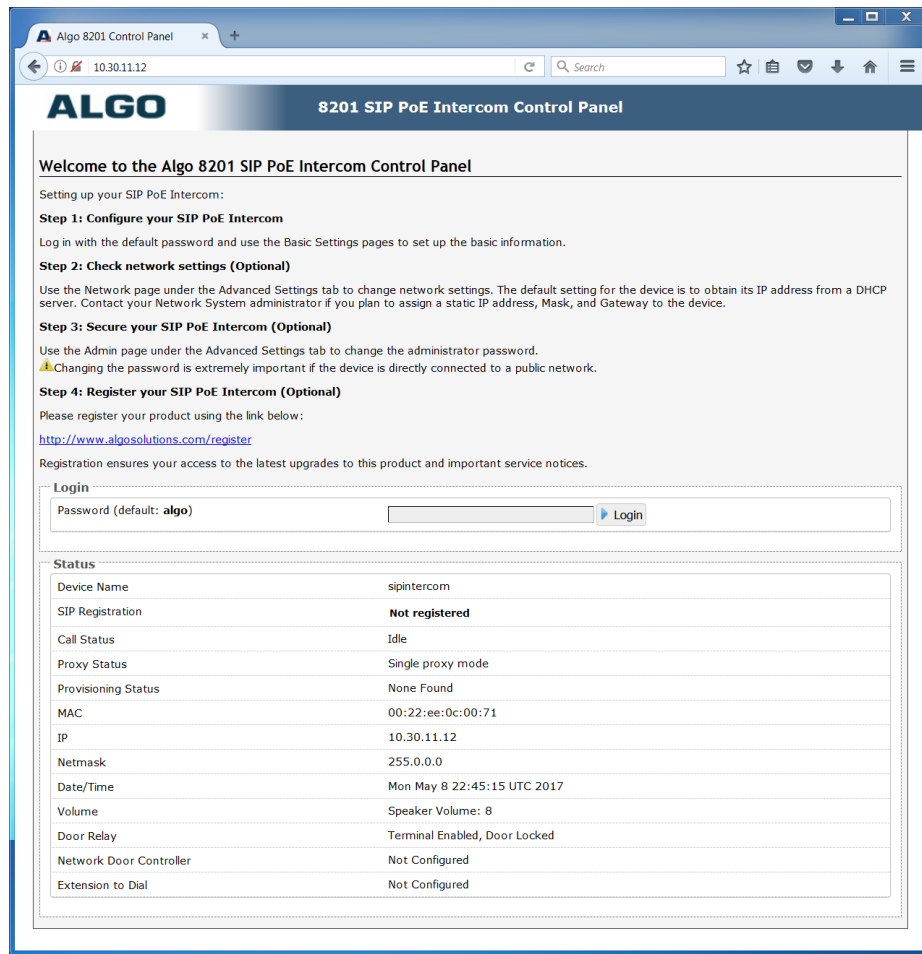
## Reset

The 8201 SIP PoE Intercom can only be reset during a power up. To reset: reboot or power cycle the 8201 SIP PoE Intercom, wait until the blue call buttons flashes and then press and hold the button until it begins a double flash pattern. Release the call button and allow the unit to complete its boot process. **Do not press the blue call button until it begins flashing.**

A reset will set all configuration options to factory default including the password.

## Web Interface Login – Status and Login

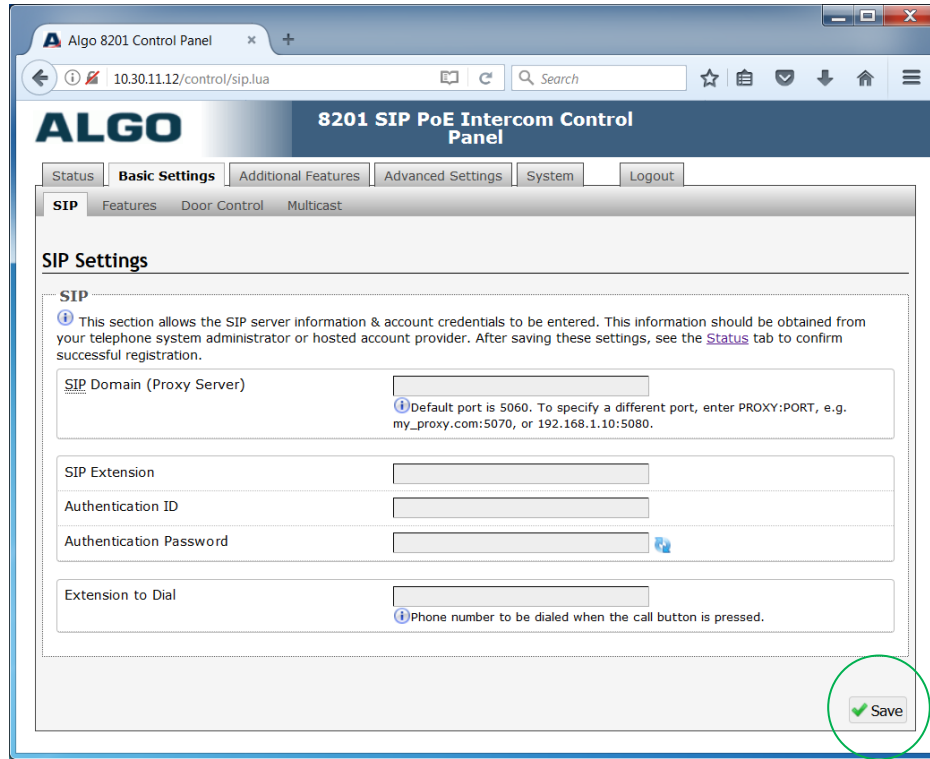
The web interface requires a password which is "**algo**" by default. This password can be changed using the *Admin* tab after logging in the first time.



### Status

The device's Status page will be available before and after log on. The section can be used to check 8201's SIP Registration status of the SIP extensions, Call Status, Proxy Status, Extension to Dial, Door Controller status, and general MAC, IP, Netmask, and Date/Time information.

## Basic Settings Tab – SIP



**Note: Any time changes are made to settings in the Web Interface the "Save" key must be clicked to save the changes**

### SIP Domain (Proxy Server)

SIP Server Name or IP Address.

### SIP Extension

Used to register the 8201 on the SIP Server.

### Authentication ID

May also be called Username for some SIP servers and in some cases may be the same as the SIP extension.



## **Authentication Password**

SIP account password provided by the system administrator.

## **Extension to Dial**

Enter the phone number that will be dialed when the call button is pressed. This can also be a Hunt Group number. Ensure that voice mail is not reached.

## Basic Settings Tab – Features

The screenshot shows the 'Basic Settings' tab with the 'Features' sub-tab selected. The settings are organized into the following sections:

- Audio:** Speaker Volume (8), Automatic Gain Control (AGC) (Enabled).
- Inbound Call:** Answer Inbound Call (Enabled), Answer Tone (<Default>).
- Outbound Call:** Outbound Ring Limit (No limit), Ringback Tone (<Default>), Allow Call Button to End Active Call (Disabled).
- General:** G.722 Support (Enabled), Maximum Call Duration (None).
- Input:** Door Sensor Connector (Disabled).

A 'Save' button is located at the bottom right of the configuration area.

### Speaker Volume

Intercom speaker audio level of the 8201 from 1 (lowest) to 10 (highest).

### Automatic Gain Control (AGC)

Normalizes the audio level. This ensures audio level heard at the speaker is always at a consistent level, independent of the phone that is used to answer the call.

## **Answer Inbound Call**

Allow the 8201 to auto answer an inbound call. By default, this functionality is activated.

## **Answer Tone**

Select a tone to be played over the speaker when the intercom answers an inbound call. Use only Default, or custom uploaded file. The other pre-installed tone files all contain silence at the end in order to generate ring "cadence" of 6 seconds. This silence will block the voice path for several seconds at the start of a call.

## **Outbound Ring Limit**

This feature can be used to set a limit on how long the intercom will ring before timing out. If the call is not answered within this time period, the 8201 will go back to an idle state.

## **Ringback Tone**

Select an audible ringback tone to be played on the 8201 speaker until the call is answered.

## **Allow Call Button to End Active Call**

If enabled, allows the visitor to end an active call by pressing the call button.

## **G.722 Support**

Enable or disable the G.722 codec.

## **Maximum Call Duration**

Select the maximum call length. The call will be terminated once the maximum time is reached. In the event that a call inadvertently reaches voicemail or gets accidentally left on hold, this setting ensures that the 8201 returns on-hook.

## **Door Sensor Connector**

This input can be configured as an auxiliary call button input. Additional features coming soon.

## Basic Settings Tab – Door Control

The 8201 can be used with the optional 8061 SIP Relay Module for additional door security as it is located inside the building. This section allows you to configure the 8061 IP Relay Controller settings (if used), as well as the settings for the on-board relay. For more information about the 8061, see "8061 IP Relay Controller" on page 45.

The screenshot shows the 'Basic Settings' tab for 'Door Control'. It includes a navigation bar with 'Status', 'Basic Settings', 'Additional Features', 'Advanced Settings', 'System', and 'Logout'. Below the navigation bar, there are sub-tabs for 'SIP', 'Features', 'Door Control', and 'Multicast'. The main content area is titled 'Door Controller Settings' and contains several sections:

- Informational text:**
  - This section allows security codes to be configured for unlocking the door. This can be done from inside the building using the DTMF keypad on the inside telephone that answers the call.
  - An electronic doorstrike is required for unlocking the door. These doorstrikes typically require their own power system and a contact closure for activation. The Algo doorphone can provide a contact closure in one of three ways:
    - Door Relay directly on the doorphone (included; for low security applications only)
    - Algo door unlock device connected to "Serial Control" terminals (sold separately or as a bundle)
    - Network Door Controller located elsewhere on the network (sold separately)
- Network Door Controller:**
  - Network Door Controller Address: [Text Input Field]
  - Network Door Controller Password: [Text Input Field with masked characters]
- Door Unlock via Telephone DTMF:**
  - Momentary Open Code: [Text Input Field with '6']
    - 1-4 digit code that can be used to unlock the door for a brief period of time (as set by the Duration field). Leave this field blank to disable this feature.
  - Duration: [Dropdown Menu with '3 seconds']
    - The duration for which to unlock the door when the Momentary Open Code is entered.
  - Latch Open Code: [Text Input Field]
    - 1-4 digit code that can be used to unlock the door indefinitely. Leave this field blank to disable this feature.
  - Latch Closed Code: [Text Input Field]
    - 1-4 digit code that will lock the door again when it is latched open. Leave this field blank to disable this feature.
- Tone:**
  - Door Unlock Tone: [Radio Buttons: Enabled, Disabled (selected)]
- Local Door Controller:**
  - Local Door Relay: [Dropdown Menu with 'Door Control']

A 'Save' button is located at the bottom right of the form.

### Network Door Controller Address

IP address of the optional 8061 IP Relay Controller. For 8061 configuration, see page 45.

## **Network Door Controller Password**

Used to authenticate the link between the 8201 and the 8061. Ensure that the two devices have matching passwords. Default password is **algo**.

*Note: the Relay Module Password is used solely to secure the link between the 8201 and the 8061. It is not the same as the Momentary Open Code.*

## **Momentary Open Code**

1-4 digit DTMF code that can be used to unlock the door for a brief period of time. Leave this field blank to disable this feature.  
(Default: 6)

## **Duration**

The time period for which to unlock the door when the Momentary Open Code is entered. From ¼ to 30 seconds.

## **Latch Open Code**

1-4 digit DTMF code that can be used to unlock the door indefinitely. Leave this field blank to disable this feature.

## **Latch Closed Code**

1-4 digit DTMF code that will lock the door again when it is latched open. Leave this field blank to disable this feature.

## **Door Unlock Tone**

A sound can be played when a door is unlocked, to create awareness.

## **Local Door Relay**

Enable or disable the Door Control Relay on the 8201.

## Basic Settings Tab – Multicast

The 8201 SIP PoE Intercom is able to act as a multicast Slave, allowing it to multicast messages from a Master device (e.g. 8180, 8186, 8188, or 8301) over the intercom speaker. Please note, the 8201 is not meant for paging in large areas. Instead we recommend using the 8186 SIP Horn Speaker for outdoor or wide-area applications (e.g. factory, warehouse), and the 8180 SIP Audio Alerter or 8188 SIP Ceiling Speaker for any other indoor paging requirements.

The screenshot shows the 'Multicast Settings' page with the following configuration:

- Multicast Mode:**  Slave/Receiver. Note: Multicast Zone Definitions can be found in "Advanced Settings > Advanced Multicast".
- Multicast Type:**  Regular (RTP). Note: Regular mode uses RTP audio packets compatible with all Algo SIP endpoints, and most multicast-enabled phones.
- Number of Zones:**  Basic and Expanded Zones
- RTP Extension Header:**  Disabled

**Slave/Receiver Zone Settings:**

- Basic Slave Zones:**
  - Priority Call
  - All Call
  - Music
  - Zone 1
  - Zone 2
  - Zone 3
  - Zone 4
  - Zone 5
  - Zone 6
- Expanded Slave Zones:**
  - Zone \*10 to Zone \*50 (all unchecked)

Buttons:

### Multicast Mode (Slave Selected)

If slave mode is enabled the 8201 intercom speaker will activate when receiving a multicast message.

### Multicast Type - Regular

Select "Regular" if solely multicasting to Algo SIP endpoint(s) and/or multicast-enabled phone(s) that use RTP audio packets.

## Number of Zones

Select “basic” zones if configuring nine or fewer multicast zones or “expanded” to configure up to 50 zones. The expanded zones have the same behaviour as the basic slave zones, but are hidden by default to simplify the interface.

## Slave Zones

Select one or more multicast zones for the 8201 SIP PoE Intercom to monitor. Note that multicast zone priority is based on the zone definition list order (top to bottom).

The screenshot shows the 'Multicast Settings' page with the following configuration:

- Multicast Mode:**  None,  Slave/Receiver
- Multicast Type:**  Regular (RTP),  Polycom Group Page,  Polycom Push-to-Talk
- Polycom Slave Settings:**
  - Polycom Zone:** 224.0.1.116:5001
  - Polycom Slave Channels:**
    - Group 1,  Group 2,  Group 3,  Group 4,  Group 5
    - Group 6,  Group 7,  Group 8,  Group 9,  Group 10
    - Group 11,  Group 12,  Group 13,  Group 14,  Group 15
    - Group 16,  Group 17,  Group 18,  Group 19,  Group 20
    - Group 21,  Group 22,  Group 23,  Group 24,  Group 25

## Multicast Type – Polycom Group Paging/Push-to-Talk

The 8201 SIP PoE Intercom may receive multicast paging compatible with Polycom “**on premise group paging**” protocol.

To configure the 8201 as a slave to play Polycom page announcements, select “Group Page” or “Push-to-Talk”. Then enter the Polycom Zone (IP Address and Port) that matches the configuration of the Polycom phones and Channels. The “Default Channel” is the target group in a Polycom paging environment.

The Polycom phone used as page audio source for the 8201(s), must be configured to use either the G.711 or G.722 audio codec. **The Polycom phone(s) must also be configured with the**

**“Compatibility” setting (“`ptt.compatibilityMode`”) disabled** in order for this codec setting to be applied.

If using a Polycom phone as the Multicast master, a tone may be set for any of the 25 Polycom Groups configured on the Algo device. If an Algo device is used as a Multicast master, a tone does not have to be set as the Algo master will provide its own tone. Polycom Group Tones can be set in Advanced Settings > Advanced Multicast tab.



## Advanced Features Tab

**\*\*Custom Application Section Only\*\***

## Advanced Settings Tab - Network

The screenshot shows the 'Advanced Settings' tab for the 'Network' section. It contains three main configuration areas:

- Network Interface:**
  - Protocol:  Static IP  DHCP
  - IP Address:
  - Netmask:
  - Gateway:
  - DNS Server 1:
  - DNS Server 2:
- 802.1Q Virtual LAN:**
  - VLAN Mode:  Enabled  Disabled
  - VLAN ID:  (Value range: 0 to 4094)
  - VLAN Priority:  (Value range: 0 to 7)
- Differentiated Services:**
  - SIP (6-bit DSCP value):
  - RTP (6-bit DSCP value):

A 'Save' button with a green checkmark is located at the bottom right of the form.

### Protocol

DHCP is an IP standard designed to make administration of IP addresses simpler. When selected, DHCP will automatically configure IP addresses for each 8201 SIP PoE Intercom on the network. Alternatively the 8201 SIP PoE Intercom can be set to a static IP address.

### VLAN Mode

Enables or Disables VLAN Tagging. VLAN Tagging is the networking standard that supports Virtual LANs (VLANs) on an Ethernet network. The standard defines a system of VLAN tagging for Ethernet frames and the accompanying procedures to be used by bridges and switches in handling such frames. The standard also provides provisions for a quality of service prioritization scheme commonly

known as IEEE 802.1p and defines the Generic Attribute Registration Protocol.

## **VLAN ID**

Specifies the VLAN to which the Ethernet frame belongs. A 12-bit field specifying the VLAN to which the Ethernet frame belongs. The hexadecimal values of 0x000 and 0xFFF are reserved. All other values may be used as VLAN identifiers, allowing up to 4094 VLANs. The reserved value 0x000 indicates that the frame does not belong to any VLAN; in this case, the 802.1Q tag specifies only a priority and is referred to as a priority tag. On bridges, VLAN 1 (the default VLAN ID) is often reserved for a management VLAN; this is vendor specific.

## **VLAN Priority**

Sets the frame priority level. Otherwise known as Priority Code Point (PCP), VLAN Priority is a 3-bit field which refers to the IEEE 802.1p priority. It indicates the frame priority level. Values are from 0 (lowest) to 7 (highest).

## **Differentiated Services (6-bit DSCP value)**

Provides quality of service if the DSCP protocol is supported on your network. Can be specified independently for SIP control packets versus RTP audio packets.

## Advanced Settings Tab – Admin

The screenshot shows the 'Advanced Settings' tab for the 'Admin' section. The interface includes the following sections:

- Admin Password:** Fields for 'Password' and 'Confirmation' with a 'Save' button.
- General:**
  - Device Name (Hostname): sipintercom
  - Introduction Section on Status Page:  On  Off
  - Web Interface Session Timeout: 1 hour (dropdown menu). Note: Automatically log out web interface after period of inactivity.
- Log Settings:**
  - Log Level:  Error (Lowest)  Notice ("Event")  Info ("SIP")  Debug (Highest)
  - Log Method:  Local  Network  Both
  - Log Server: (empty text field)
- Management:**
  - Web Interface Protocol:  Both HTTP and HTTPS  HTTPS Only
  - Force Strong Password:  Enabled  Disabled
  - Allow Secure SIP Passwords:  Enabled  Disabled. Note: After enabling this option, it is recommended to re-enter SIP passwords and their corresponding realm to store the passwords securely.
  - SNMP Support (v1 get only):  Enabled  Disabled

A 'Save' button is located at the bottom right of the form.

### Password

Password to log into the 8201 SIP PoE Intercom web interface. You should change the default password **algo** in order to secure the device on the network. If you have forgotten your password, you will need to perform a reset using the Reset Button in order to restore the password (as well as all other settings) back to the original factory default conditions.

*For additional password security see "Force Strong Password" below.*

### Confirmation

Re-enter network admin password

## **Device Name (Hostname)**

Name to identify the device in the Algo Network Device Locator Tool.

## **Introduction Section on Status Page**

Allows the introduction text to be hidden from the login screen.

## **Web Interface Session Timeout**

Set the maximum period of inactivity after which the web interface will log out automatically.

## **Log Level**

Use on the advice of Algo technical support only.

## **Log Method**

Allows the 8201 SIP PoE Intercom to write to external Syslog server if the option for external (or both) is selected.

## **Log Server**

If "Network" or "Both" is selected this is the address of the Syslog server on the network.

## **Web Interface Protocol**

HTTPS is always enabled on the device. Use this setting to disable HTTP. When HTTP is disabled, requests will be automatically redirected to HTTPS. Also note that since the device can have any address on the local network, no security certificate exists, and thus most browsers will provide a warning when using HTTPS.

## **Force Strong Password**

When enabled, ensures that a secure password is provided for the device's web interface for additional protection. The password requirements are:

- Must contain at least 10 characters
- Must contain at least 1 uppercase character
- Must contain at least 1 digit (0 – 9)
- Must contain at least 1 special character

## **Allow Secure SIP Password**

Allows SIP passwords to be stored in the configuration file in an encrypted format, to prevent viewing and recovery. Once enabled, the SIP "Realm" field should be entered and all the configured Authentication Password(s) must be re-entered in the Basic Settings > SIP tab, and any other locations where SIP extension have been configured, to save the encrypted password(s).

If the Realm is changed at a later time, all the passwords will also need to be re-entered again to save the passwords with the new encryption.

*To obtain your SIP Realm information, contact your SIP Server administrator (or check the SIP log file for a registration attempt). The Realms may be the same or different for all the extensions used.*

## **SNMP Support (v1 get only)**

Additional SNMP support is anticipated for future, but the 8201 SIP PoE Intercom will respond to a simple status query for automated supervision. Contact Algo technical support for more information.

## Advanced Settings Tab – Time

The screenshot displays the 'Time Settings' configuration page. At the top, there are navigation tabs: Status, Basic Settings, Additional Features, **Advanced Settings**, System, and Logout. Below these are sub-tabs: Network, Admin, **Time**, Provisioning, Tones, Advanced SIP, and Advanced Multicast. The main content area is titled 'Time Settings' and contains a 'General' section. This section includes a 'Timezone' dropdown menu set to 'UTC'. Below this are four 'NTP Time Server' fields, each containing a domain name: 0.debian.pool.ntp.org, 1.debian.pool.ntp.org, 2.debian.pool.ntp.org, and 3.debian.pool.ntp.org. The 'NTP Time Server Source' section has two radio buttons: 'Use DHCP Option 42' (selected) and 'Ignore DHCP Option 42'. A note below states: 'By default, if an NTP Server address is provided via DHCP Option 42, this will be used instead of the options above.' The 'Device Date/Time' field shows 'Mon May 8 21:20:40 2017' and a 'Sync with browser' button. A note below this field says: 'Manual time and date are intended for testing purpose only. Time will be lost upon power down.' A green 'Save' button is located at the bottom right of the form.

Network time is used for logging events into memory for troubleshooting.

### Timezone

Select timezone.

### NTP Time Servers 1/2/3/4

The interface will attempt to use Timer Server 1 and work down the list if one or more of the time servers become unresponsive.

### NTP Time Server Source

When "Use DHCP Option 42" is chosen, if an NTP Server address is provided via the DHCP Option 42, that NTP Server will be used instead of the 4 mentioned above. Alternatively, "Ignore DHCP Option 42" can be chosen to only use servers mentioned above.

### Device Date/Time

This field shows the current time and date as set on the device. If testing the device on a lab network that may not have access to an external NTP server, the "Sync with browser" button can be used to temporarily set the time on the device.

*Note, this time value will be lost at power down, or overwritten if NTP is currently active. Time and date are used only for logging purposes and are not typically required.*



## Advanced Settings Tab – Provisioning

Provisioning allows installers to pre-configure 8201 SIP PoE Intercom units prior to installation on a network. It is typically used for large deployments to save time and ensure consistent setups.

The device can be provisioned via the Auto mode (where all three DHCP options (Option 66/160/150) will be automatically checked for an active provisioning server), just one of the three specified DHCP options, or a Static Server. In addition, there are four different ways to download provisioning files from a "Provisioning Server": TFTP (Trivial File Transfer Protocol), FTP, HTTP, or HTTPS.

For example, 8201 configuration files can be automatically downloaded from a TFTP server using DHCP Option 66.

This option code (when set) supplies a TFTP boot server address to the DHCP client to boot from.

DHCP must be enabled if using DHCP Option 66/160/150, in order for Provisioning to work.

One of two files can be uploaded on the Provisioning Server (for access via TFTP, FTP, HTTP, or HTTPS):

Generic (for all 8201 Paging Adaptors)	algop8201.conf
Specific (for a specific MAC address)	algom[MAC].conf

## MD5 Checksum

In addition to the .conf file, an .md5 checksum file must also be uploaded to the Provisioning server. This checksum file is used to verify that the .conf file is transferred correctly without error.

A tool such as can be found at the website address below may be used to generate this file: <http://www.fourmilab.ch/md5>

The application doesn't need an installation. To use the tool, simply unzip and run the application (md5) from a command prompt. The proper .md5 file will be generated in the same directory.

If using the above tool, be sure to use the "-l" parameter to generate lower case letters.

## Generating a generic configuration file

1. Connect 8201 to the network
2. Access the 8201 Web Interface Control Panel
3. Configure the 8201 with desired options
4. Click on the System tab and then Maintenance.
5. Click "Download" to download the current configuration file
6. Save the file settings.txt
7. Rename file settings.txt to algop8201.conf
8. File algop8201.conf can now be uploaded onto the Provisioning server

If using a generic configuration file, extensions and credentials have to be entered manually once the 8201 SIP PoE Intercom has automatically downloaded the configuration file.

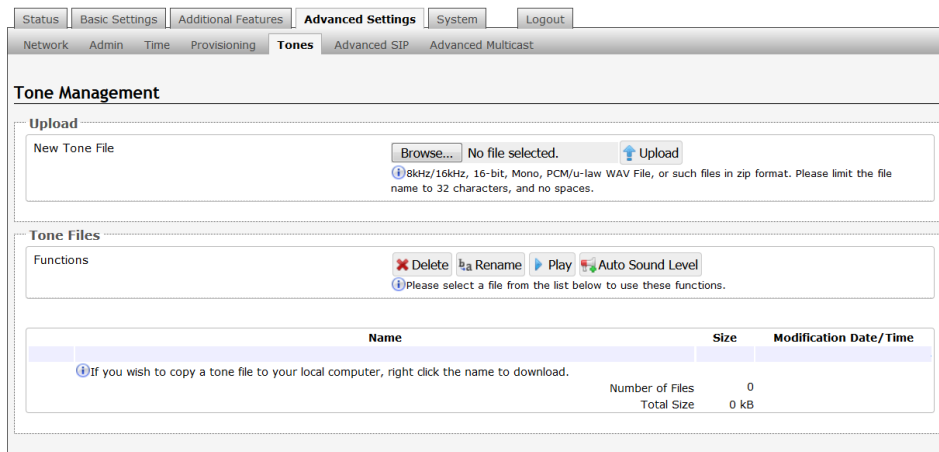
## Generating a specific configuration file

1. Follow steps 1 to 6 as listed in the section "Generating a generic configuration file".
2. Rename file settings.txt to algom[MAC address].conf (e.g. algom0022EE020009.conf)
3. File algom[MAC address].conf can now be uploaded on the Provisioning server.

The specific configuration file will only be downloaded by the 8201 SIP PoE Intercom with the MAC address specified in the configuration file name. Since all the necessary settings can be included in this file, the 8201 will be ready to work immediately after the configuration file is downloaded. The MAC address of each 8201 SIP PoE Intercom can be found on the back label of the unit.

For more Algo SIP endpoint provisioning information, see:  
[www.algosolutions.com/provision](http://www.algosolutions.com/provision)

## Advanced Settings Tab – Tones



### Uploading Custom Ring Tones (WAV Files)

Custom audio files (WAV format) may be uploaded into memory (1 GB) to play for notification applications.

An existing file may also be modified by downloading the original via the links in the web interface, making the desired changes, and then uploading the new version with a different name. Audio files must be in the following format:

- WAV format
- 8kHz or 16kHz sampling rate
- 16-bit PCM, or u-law
- Mono

A zip files containing one or more audio files may also be uploaded. File names must be limited to 32 characters, with no spaces.

## Advanced Settings Tab – Advanced SIP

### Outbound Proxy

IP address for outbound proxy. A proxy (server) stands between a private network and the internet.

### STUN Server

IP address for STUN server if present.

### Register Period (seconds)

Maximum requested period of time where the 8201 SIP PoE Intercom will re-register with the SIP server. Default setting is 3600 seconds (1 hour). Only change if instructed otherwise.

### Keep-alive Method

If Double CRLF is selected the 8201 SIP PoE Intercom will send a packet every 30 seconds (unless changed) to maintain connection with the SIP Server if behind NAT.

## **Server Redundancy Feature**

Two secondary SIP servers may be configured. The 8201 SIP PoE Intercom will attempt to register with the primary server but switch to a secondary server when necessary. The configuration allows re-registration to the primary server upon availability or to stay with a server until unresponsive.

If Server Redundancy is selected the web page will expand as shown below.

### **Backup Server #1**

If primary server is unreachable the 8201 SIP PoE Intercom will attempt to register with the backup servers. If enabled, the 8201 SIP PoE Intercom will always attempt to register with the highest priority server.

### **Backup Server #2**

If backup server #1 is unreachable the 8201 SIP PoE Intercom will attempt to register with the 2nd backup server. If enabled, the 8201 SIP PoE Intercom will always attempt to register with the highest priority server.

### **Polling Intervals (seconds)**

Time period between sending monitoring packets to each server. Non-active servers are always polled, and active server may optionally be polled (see below).

### **Poll Active Server**

Explicitly poll current server to monitor availability. May also be handled automatically by other regular events, so can be disabled to reduce network traffic.

### **Automatic Failback**

Reconnect with higher priority server once available, even if backup connection is still fine.

### **Polling Method**

SIP message used to poll servers to monitor availability.

## Advanced Settings Tab – Advanced Multicast

Status
Basic Settings
Additional Features
Advanced Settings
System
Logout

Network
Admin
Time
Provisioning
Tones
Advanced SIP
Advanced Multicast

**Advanced Multicast Settings**

Current multicast mode: Slave  
Multicast mode can be set in "Basic Settings > Multicast"

**Slave Settings**

Audio Sync (milliseconds, 0 ~ 1000)

When using multicast with other third-party devices that have a delay in their audio path, the audio on the 8201 may be heard slightly earlier than on these other devices. Use this feature to add a small delay to the audio output on the 8201 in order to synchronize with these other devices. Applies to Multicast Slave mode only.

**Basic Zone Definition**

If using an Algo device as a Multicast master, it is recommended to set the slave tones to "None" to avoid conflicts, as the Algo devices already multicast a tone by default.

Zone	IP Address and Port	Page Tone	Page Volume
Priority Call (DTMF:9)	<input type="text" value="224.0.2.60:50000"/>	<None>	<Use Default Volume>
All Call (DTMF:0)	<input type="text" value="224.0.2.60:50001"/>	<None>	<Use Default Volume>
Zone 1 (DTMF:1)	<input type="text" value="224.0.2.60:50002"/>	<None>	<Use Default Volume>
Zone 2 (DTMF:2)	<input type="text" value="224.0.2.60:50003"/>	<None>	<Use Default Volume>
Zone 3 (DTMF:3)	<input type="text" value="224.0.2.60:50004"/>	<None>	<Use Default Volume>
Zone 4 (DTMF:4)	<input type="text" value="224.0.2.60:50005"/>	<None>	<Use Default Volume>
Zone 5 (DTMF:5)	<input type="text" value="224.0.2.60:50006"/>	<None>	<Use Default Volume>
Zone 6 (DTMF:6)	<input type="text" value="224.0.2.60:50007"/>	<None>	<Use Default Volume>
Music (DTMF:7)	<input type="text" value="224.0.2.60:50008"/>	<None>	<Use Default Volume>

**Expanded Zone Definition**

Zone	IP Address and Port	Page Tone	Page Volume
Zone 10 (DTMF: *10)	<input type="text" value="224.0.2.110:50000"/>	<None>	<Use Default Volume>
Zone 11 (DTMF: *11)	<input type="text" value="224.0.2.111:50000"/>	<None>	<Use Default Volume>

↓

Zone 50 (DTMF: *50)	<input type="text" value="224.0.2.150:50000"/>	<None>	<Use Default Volume>
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### Audio Sync

When paging to the 8201 SIP PoE Intercom as well as other third party devices, the low latency of the 8201 may cause the audio to lead other devices. By adding audio delay up to one second, the 8201 may be synchronized with other endpoints or telephones that have greater latency.

## Zone Definition

The “Expanded” Slave zones can be enabled/disabled in Basic Settings > Multicast. Default IP addresses and ports may be revised for any given zone in the table.

*Note: Ensure that the Address and Port settings are the same for all master and slave devices.*

## Page Tone and Page Volume

When an Algo device is the multicast master, a page tone will play on the slave device, so it is recommended to set the slave tone to “None”. If a page is received from a non-Algo device that doesn’t send a tone, a tone can be inserted on the slaves (above) each time they detect page audio starting, allowing them to play a tone.

By default, the same page volume can be set for all slave zones in the Basic Settings > Features tab. Unique page volumes may be revised on a per-zone basis in the table above. For instance, emergency pages can be louder on certain slave speakers.

The screenshot displays the 'Advanced Multicast Settings' page. At the top, there are navigation tabs: Status, Basic Settings, Additional Features, Advanced Settings (selected), System, and Logout. Below these are sub-tabs: Network, Admin, Time, Provisioning, Tones, Advanced SIP, and Advanced Multicast (selected). The main content area is titled 'Advanced Multicast Settings'. A message states: 'Current multicast mode: Slave. Multicast mode can be set in "Basic Settings > Multicast"'. Under 'Slave Settings', there is an 'Audio Sync (milliseconds, 0 ~ 1000)' field with a value of 0. A note explains: 'When using multicast with other third-party devices that have a delay in their audio path, the audio on the 8201 may be heard slightly earlier than on these other devices. Use this feature to add a small delay to the audio output on the 8201 in order to synchronize with these other devices. Applies to Multicast Slave mode only.' The 'Polycom Slave Tones' section has a note: 'If using an Algo device as a Multicast master, it is recommended to set the slave tones to "None" to avoid conflicts, as the Algo devices already multicast a tone by default.' Below this are dropdown menus for 'Group 1', 'Group 2', and 'Group 25', all set to '<None>'. A downward arrow points to the 'Group 25' dropdown. A 'Save' button with a green checkmark is at the bottom right.



## **Polycom Slave Tones**

A tone may be set for any of the 25 Polycom Groups. If using an Algo device as a Multicast master, it is recommended to set the slave tones to "None" to avoid conflicts, as the Algo devices already multicast a tone by default.

These settings are available only if the 8201 is set as a Multicast Slave and "Polycom Group Page" or "Polycom Push-to-Talk" are selected in the Basic Settings > Multicast tab.

## System Tab - Maintenance

The screenshot shows a web interface for system maintenance. At the top, there are navigation tabs: Status, Basic Settings, Additional Features, Advanced Settings, System (selected), and Logout. Below these, there are sub-tabs: Maintenance (selected), System Log, Credits, and About. The main content area is titled "System Maintenance" and is divided into three sections:

- Backup / Restore Configuration:** Contains three rows. The first row is "Download Configuration File" with a "Download" button. The second row is "Restore Configuration File" with a "Browse..." button, a "No file selected." status, and a "Restore" button. The third row is "Restore Configuration to Defaults" with a "Restore Defaults" button.
- Reboot:** Contains one row: "Reboot the device" with a "Reboot" button.
- Upgrade to New Firmware:** Contains three rows. The first row is "Method" with radio buttons for "From Local Files" (selected) and "From URL". The second row is "Firmware Image" with a "Browse..." button and a "No file selected." status. The third row is "MD5 Checksum" with a "Browse..." button and a "No file selected." status. Below these rows is an "Upgrade" button.

### Download Configuration File

Save the device settings to a text file for backup or to setup a provisioning configuration file.

### Restore Configuration File

Restore settings from a backup file.

### Restore Configuration to Defaults

Resets all 8201 SIP PoE Intercom device settings to factory default values.

### Reboot the Device

Reboots the device.

### Method

Specify whether the firmware files will be downloaded from the local computer or a remote URL.

## Firmware Image

Point to the firmware image provided by Algo

## MD5 Checksum

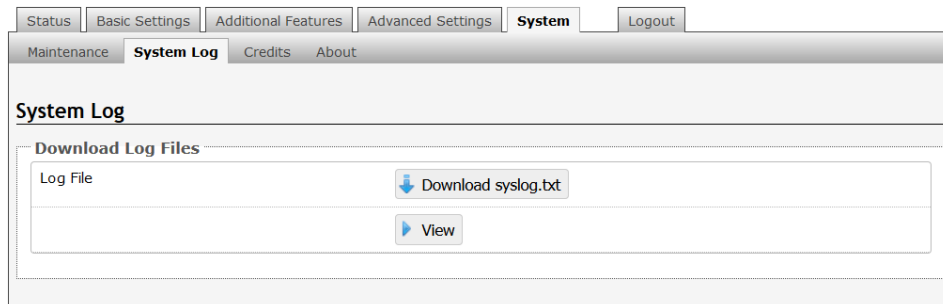
Point to the checksum file provided by Algo

## Upgrade 8201 SIP PoE Intercom Firmware

1. From the top menu, click on System.
2. In the Upgrade section, click on Choose File and select the 8201 SIP PoE Intercom firmware file to upload. Note that both the FW firmware and MD5 checksum files must be loaded.
3. Click Upgrade
4. After the upgrade is complete, confirm that the firmware version has changed (refer to top right of Control Panel).

## System – System Log

System log files are automatically created and assist with troubleshooting in the event the 8201 SIP PoE Intercom does not behave as expected.



## Specifications

<b>Power Input:</b>	48 V PoE IEEE 802.3af Class 0 (Max 6 W - Idle nominal 2 W)
<b>Dimensions:</b>	4.5" x 4.5" x 1.34" (11.5 cm x 11.5 cm x 3.4 cm)
<b>Weight:</b>	0.90 lb (.41kg)
<b>Audio Codecs:</b>	G.711 A-law, G.711 u-law, G.722
<b>Server Redundancy:</b>	Primary, secondary, tertiary
<b>Processor:</b>	Linux OS ARM Cortex-A8 32-Bit RISC Processor
<b>Relay Output:</b>	Normally open or normally closed. Max rating 30 V 50 mA
<b>Relay Input:</b>	Normally open or normally closed dry contact.
<b>Configuration:</b>	Web interface (HTTP or HTTPS) or auto-provisioning server
<b>Provisioning:</b>	TFTP, FTP, or HTTP
<b>NAT:</b>	STUN, CRLF Keep Alive
<b>Environmental:</b>	-40 to 104 deg F (-40 + 40 degC) 10-95% RH non-condensing.
<b>Compliance:</b>	EN60950:2001, IEEE 802.3-2008, RFC3261, RoHS, CE, FCC Class A, CISPR 22 Class A, CISPR 24, CSA/UL (USA & Canada)

## 8061 IP Relay Controller

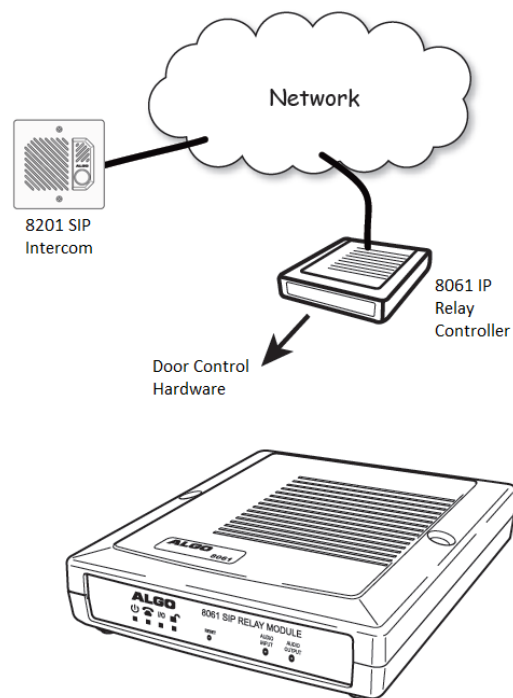
The 8201 can provide secure door control functionality when used with the optional Algo 8061 IP Relay Controller.

The 8061 serves as a bridge between the 8201 and peripheral hardware such as door strikes, door sensors, door bells, etc.

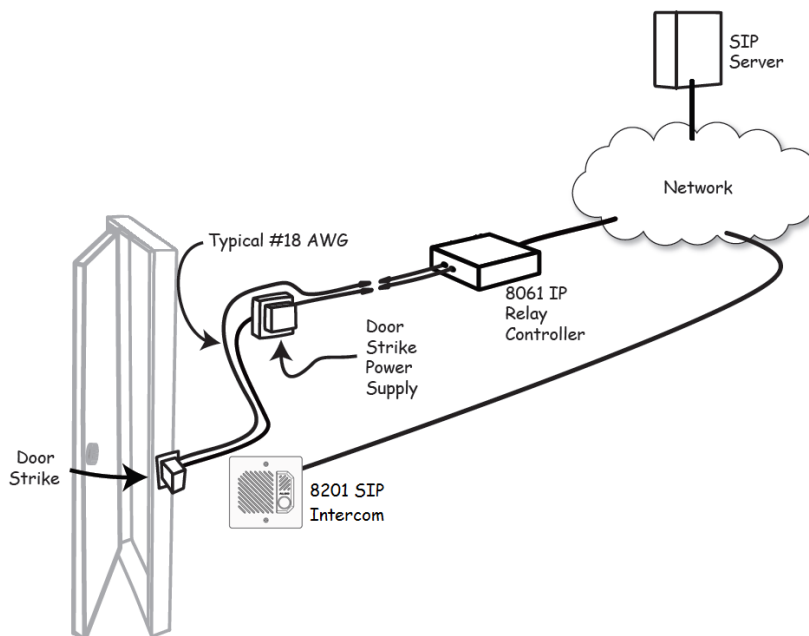
As a door opening controller, the 8061 can be located in a secure environment to prevent tampering by outside visitors.

The 8201's PoE network connection also provides additional security over internal relay wires that can be used to unlock the door if the device is tampered with.

The door control feature is activated by a command from the answering telephone keypad, or entry of the door release code by a visitor.

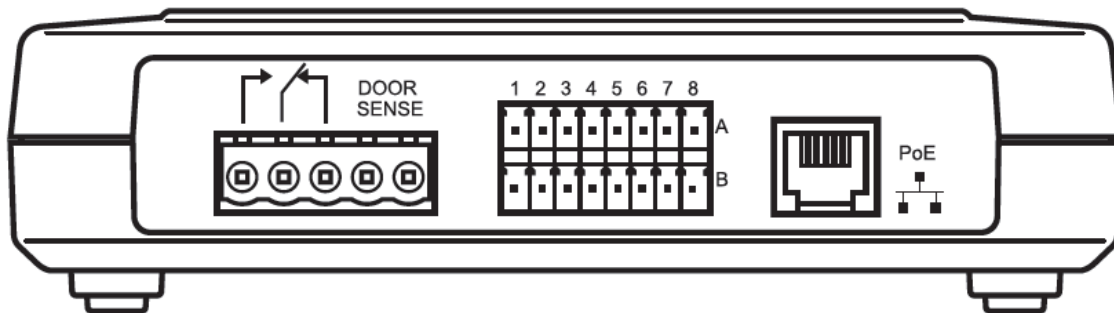


## Typical 8201/8061 Setup



PoE and Relay Connections on back of 8061 IP Relay Controller:

1. Connect the 8061 to the network via an Ethernet cable at the back of the device. Ensure that a PoE port is used for power and that the 8061 is connected to the same subnet and VLAN as the target intercom.
2. Run two wires from the door strike to the Normally Open/Common (NO/C) input pair or Common/Normally Closer (C/NC) input pair on the 8061. For more wiring information please visit: [www.algosolutions.com/doorstrike](http://www.algosolutions.com/doorstrike).



## Configuring the 8061

1. Find the IP address of the Algo 8061 using the Algo locator tool available from the Algo website ([www.algosolutions.com/locator](http://www.algosolutions.com/locator)). This tool displays all of the Algo devices available on the network, and their corresponding IP addresses. Note this address down as you will need it when you configure the 8201 for use with this device.
2. Point your browser to the above IP address. The 8061 Control Panel will be displayed.
3. Log in. The default password is **algo**.
4. Go to the **Basic Settings > Door Control** tab.

The screenshot shows the ALGO web interface. At the top, there are navigation tabs: Status, Basic Settings, Advanced Settings, System, and Logout. Below these, there are sub-tabs for SIP, Input, Events, and Door Control. The Door Control tab is selected. The main content area is titled 'Door Relay Settings'. Underneath, there is a section labeled 'Door Relay' containing two fields: 'Door Control Link' with radio buttons for 'Enabled' (selected) and 'Disabled', and 'Door Control Password' with a text input field containing '1234' and a clear button. A 'Save' button with a green checkmark is located at the bottom right of the form.

5. Set the "Door Control Link" to "Enabled".
6. In the "Door Control Password" field set a password that will be used for configuring the intercom for door control. Note this password down as you will be reusing it when configuring the 8039 with this device.

*See section "Basic Settings Tab – Door Control" page 20 for configuring the 8201 with the parameters from above.*

## FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.