

8128 SIP Strobe Light FW Version 2.7.4

Installation & Configuration



8128
8128A
8128B
8128R
8128ABR

Clear lens only
Clear lens with **AMBER** cover
Clear lens with **BLUE** cover
Clear lens with **RED** cover
Clear lens with 3 color cover kit

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Important Safety Information



The 8128 SIP Strobe Light is **NOT INTENDED FOR FIRE ALARM SIGNALLING APPLICATIONS.**

The 8128 SIP Strobe Light is intended for informative signaling in conjunction with unified communication systems. The 8128 Strobe Light is suitable for OSHA and ADA compliance when properly located and configured.



DO NOT LOOK DIRECTLY at the 8128 SIP Strobe Light while operating in close proximity, as vision may be affected. The LEDs in the 8128 light are classified according to the IEC 62471-2006 standard as "RG-2" for risk group 2. This is defined as "*Moderate risk. Does not pose a hazard due to aversion response to bright light or thermal discomfort*".



PHOTO-SENSITIVITY in some people with epilepsy can trigger seizures from flashing or flickering lights. It is possible that some flash patterns of the 8128 SIP Strobe Light could trigger a seizure for some individuals under some conditions. High intensity patterns should only be selected if necessary for the 8128 to be effective.

Wet or Outdoor Environments

The 8128 SIP Strobe Light 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 8128 SIP Strobe Light 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.

Relay input and output connections must not leave the building perimeter without adequate lightning protection.

About the Algo 8128 SIP Strobe Light

The 8128 light is a SIP compliant, multicast capable, PoE strobe light. The flash intensity can be chosen to suit the application and environment. There are non-flashing patterns for passive, gentle notification, and aggressive patterns for maximum conspicuity in busy environments.

The 8128 is typically wall or ceiling mounted. The 360 x 180 visibility and 16 available flash patterns makes the 8128 suitable for notification and alerting of telephone, emergency, safety, and security events. Light output is equally intense in every direction unless a directional pattern is chosen.

The 8128 SIP Strobe Light can be activated by:

- SIP Ring
- SIP Message Waiting
- SIP In-Use (Subscribe Notify)
- Dry contact closure input
- Multicasting

Multiple Algo endpoints in a SIP environment require only one device to register as a SIP extension. Multicasting capabilities allow the SIP registered strobe to flash and simultaneously stream multicast events to the other Algo strobes, speakers and paging adapters in any combination and number of endpoints.

The 8128 SIP Strobe Light is configured using central provisioning features or by accessing a web interface using browsers such as Google Chrome, Firefox, or Internet Explorer.

What's Included

- 8128 SIP Strobe Light unit with clear lens
- Mounting bracket
- Gaskets
- Colored lens cover (if color option ordered)

Getting Started – Quick Install & Test



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

1. Connect the 8128 SIP Strobe Light to a 802.3af PoE network using the RJ45 jack in the back recess of the housing
2. Allow the 8128 SIP Strobe Light time to boot, about 30 seconds. While booting, the Strobe will turn on all 8 LEDs momentarily and then activate each LED one time as a test pattern. All LED's will then remain on in a dim pattern until boot up is complete.
3. If there is no DHCP server found the 8128 SIP Strobe Light will default to the static IP address **192.168.1.111**. Most often however the 8128 will be assigned an IP address. To determine the IP address for the 8128 download the Algo locator tool to find Algo devices on your network: www.algosolutions.com/locator
4. Access the 8128 SIP Strobe Light web page by entering the IP address into a browser.
5. Enter the IP address for the SIP server
6. Enter the relevant SIP extension and password information
7. Test by dialing the SIP extension. The 8128 SIP Strobe Light should flash in response to ring. (The 8128 will not answer a ring event)

Installation & Mounting

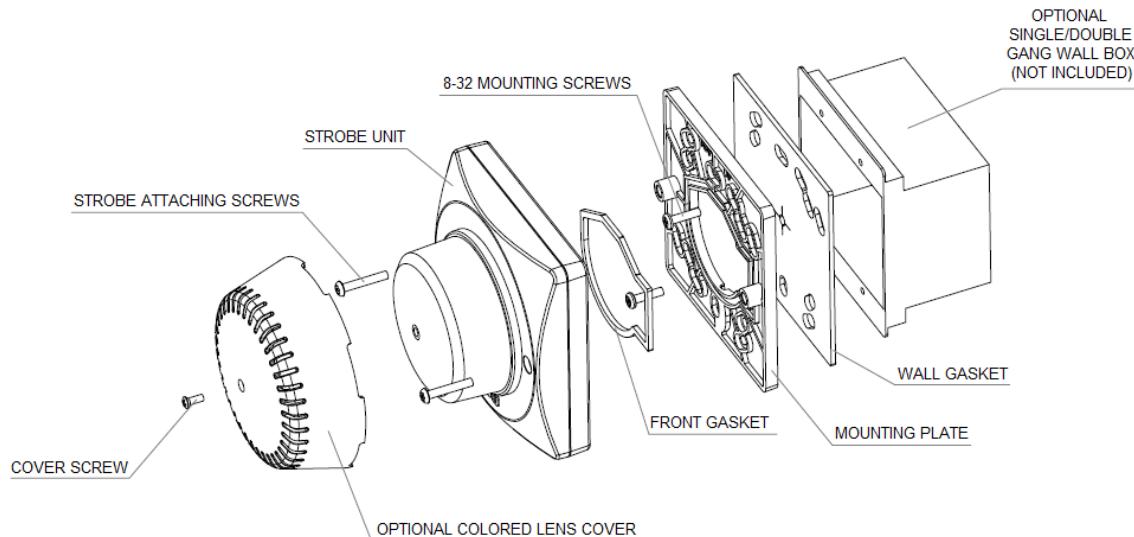
The 8128 SIP Strobe Light can be wall or ceiling mounted. Concealed wiring may enter from the wall into the wiring cavity. Alternatively, surface wiring may enter through a channel from the bottom edge. The channel is intended for cabling 0.2" or 5mm in diameter and is intentionally snug to protect against moisture ingress.

The 8128 can be mounted in any orientation but both the bracket and housing identify TOP. This keeps the bracket wiring chase on the bottom and the RJ45 jack on the top side.

The mounting plate may be used to mount over flush or surface mounted electrical boxes or mud rings and fits securely to a 2 gang electrical box (not included) for installation with wiring conduit.

The 8128 SIP Strobe Light is rated IP65 for wet locations however care must be taken to ensure that water does not enter the wiring cavity. The supplied gaskets or sealant must be used to protect the wiring cavity in wet environments. In dry indoor environments the gaskets are not required. If the wall gasket is used with surface wiring, then the gasket should be attached after placing the cable into the wiring channel.

The 8128 should not be installed beyond a building perimeter without adequately protecting the building wiring from lightning surge.



Web Interface

The 8128 SIP Strobe Light is configurable using the web interface or provisioning features.

After boot up the strobe light will turn off and the device will have obtained an IP address. If there is no DHCP server the 8128 will default to the static IP address **192.168.1.111**.

The IP address may be discovered by downloading the Algo locator tool to find Algo devices on your network:

www.algosolutions.com/locator

Enter the IP address (eg 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.

Multicast Overview

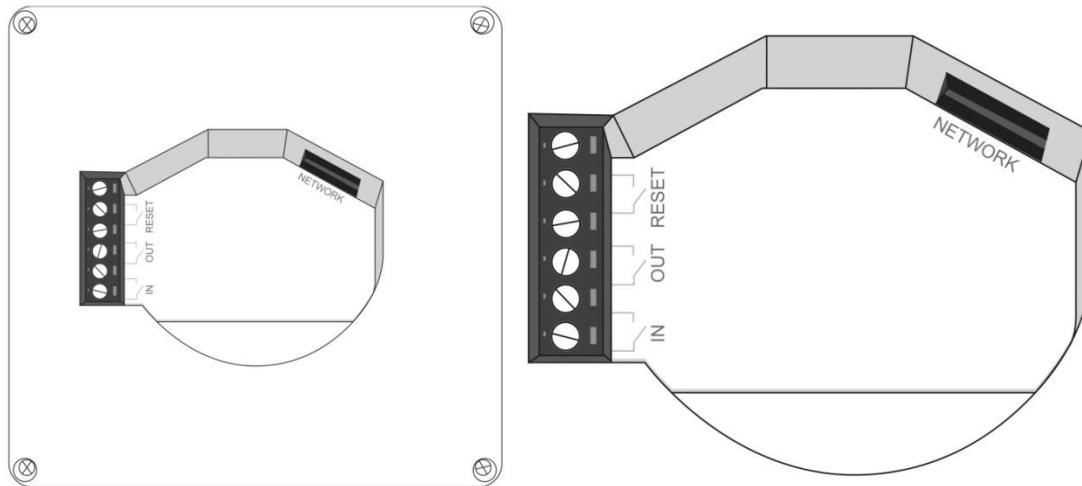
The 8128 SIP Strobe Light is able to send or receive IP multicast messages over the network.

Without multicast, multiple 8128 lights would all require their own SIP extensions and then be added to a hunt group or ring group for simultaneous activation.

Multicasting offers an alternative that requires only one SIP extension and reduces network traffic. The first 8128 SIP Strobe Light deployed can be configured as a multicast Master, so that whatever flash pattern is selected is also broadcast to the network using a multicast IP address. All of the other 8128 SIP Strobe Lights are configured as multicast Slaves and will activate in response to the multicast message. Please note that any number and combination of Algo speakers, paging adapters and strobes can be part of a multicast.

The Slave 8128 SIP Strobe Lights require a PoE network connection but do not require registration to the SIP server.

Wiring Connections



Network Connection

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

Note: The strobe will remain lit in "dim" mode while the device is booting. Typically this will last less than 30 seconds, however it can be a minute or two longer if configured for DHCP or Provisioning but unable to contact the applicable servers. If no network "link" can be established, the light will remain lit in "dim" mode as an error notification (e.g. connection to PoE injector only, with no uplink cable).

Terminal Block Relay In

By default, shorting these terminals will cause the 8128 SIP Strobe Light to activate.

Terminal Block Relay Out

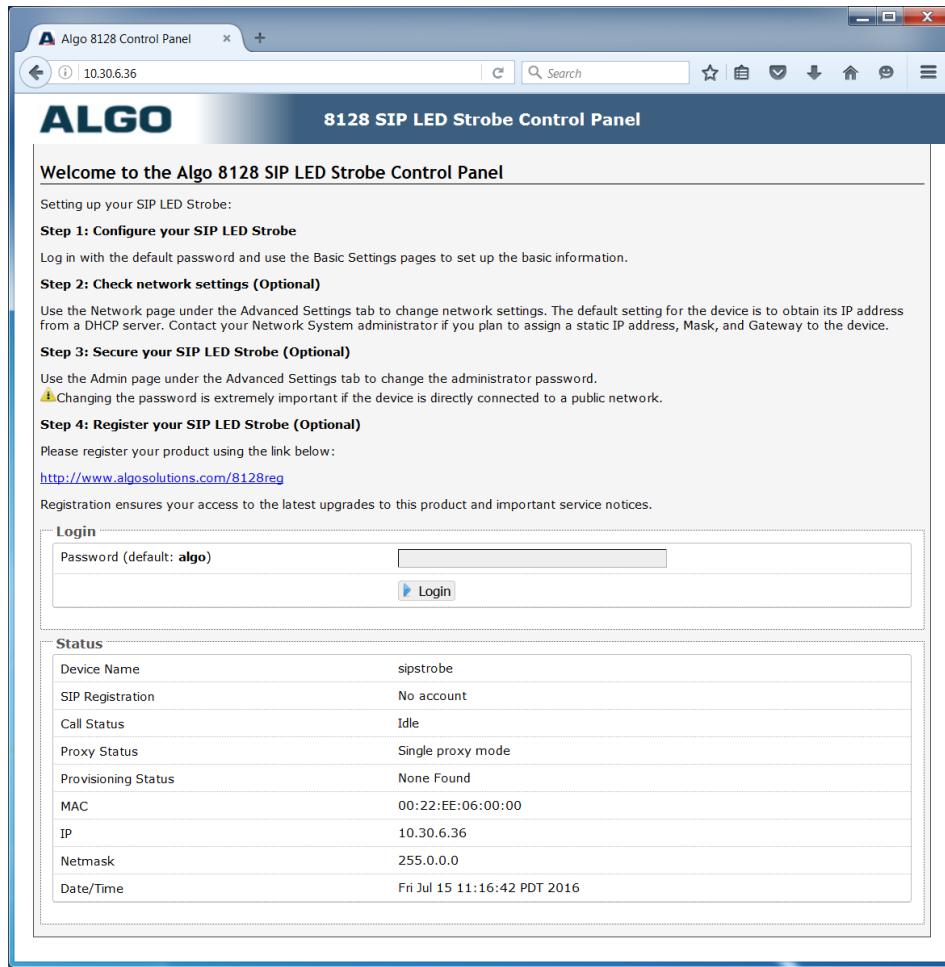
By default these terminals provide a contact closure when the 8128 SIP Strobe Light is active. This relay can be used to interoperate with other Algo speakers and strobes using 24 gauge single twisted pair.

Terminal Block Reset

To return all settings to a factory default, use a wire pair to short these terminals at start up—continue until all the 8128 LEDs start a pulsing flash pattern.

Web Interface 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.

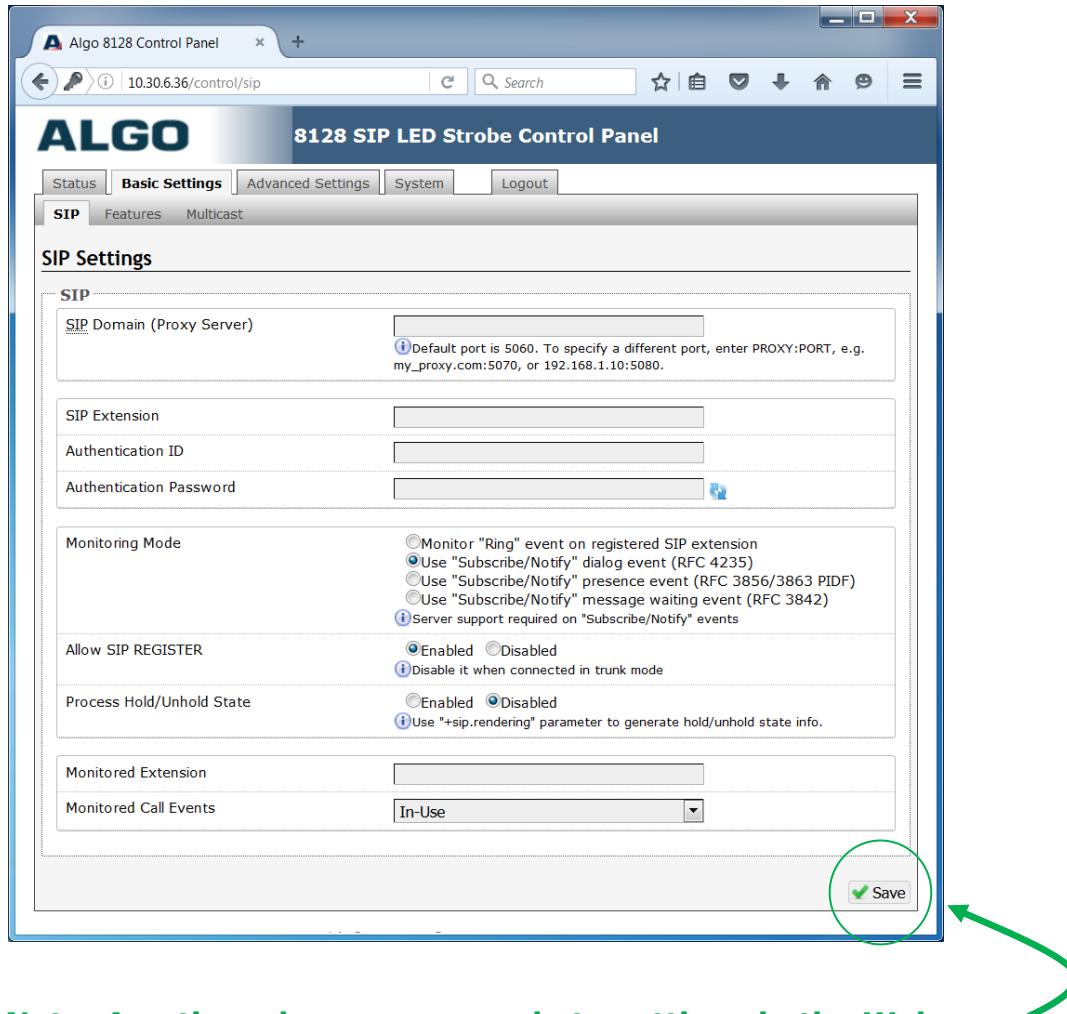


Status

The device's Status page will be available before and after log on. The section can be used to check 8128's SIP Registration status of the Ring/Page extensions, Call Status, Multicast Mode (Slave/Master), Relay Input Status, Proxy Status, and general MAC, IP, Netmask, Date/Time, and Timezone information.

Use the refresh button in your browser to view the latest status 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

This is the SIP extension for the 8128 light. The strobe will activate when a ring event occurs on this extension. SIP registration is also required if using Subscribe/Notify to monitor the status of the extensions (see below).

Authentication ID

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

Authentication Password

SIP password provided by the system administrator for the ID

Monitoring Mode

There are several ways in which the 8128 SIP Strobe Light can be activated. Dry contact input and multicast do not require registration with a SIP server and are discussed elsewhere in this guide.

The modes involving activation from SIP events are discussed below:

Monitor Ring: When a call is made to the SIP extension the 8128 light will flash. Often, the 8128 will be part of a hunt group or ring group to flash in conjunction with a telephone.

Subscribe/Notify (dialog event): If chosen, an additional field appears asking for the "Monitored Extension" (may be different from the 8128 SIP extension) and the event of interest (ring, in-use, or both). The 8128 will monitor this SIP extension for events per RFC 4235. While the event is active, the 8128 will flash.

Subscribe/Notify (presence event): If chosen, an additional field appears asking for the "Monitored Extension" (may be different from the 8128 SIP extension). The 8128 will monitor this SIP extension for events per RFC 3856/3863. While the event is active, the 8128 will flash.

Subscribe/Notify (message waiting event): When a message is left for the SIP extension then the 8128 will flash.

Note: Phone system compatibility is required for "Subscribe/Notify" events.

Basic Settings Tab - Features

The screenshot shows the 'Features' tab of the ALGO 8128 SIP Strobe Light's configuration interface. The top navigation bar includes links for Status, Basic Settings (which is selected), Advanced Settings, System, and Logout. Below the navigation is a secondary menu with SIP, Features (selected), and Multicast.

Flash Pattern

- General Flash Pattern: Set to "9 - Steady bright" with an "Apply" button.
- Test Flash Pattern: Buttons for "Start" and "Stop".
- Flash Pattern - Ring: Set to "<Use General Flash Pattern>"
- Flash Pattern - In-Use: Set to "<Use General Flash Pattern>"
- Flash Pattern - Hold: Set to "<Use General Flash Pattern>"

Cadence

- Continuous: Radio buttons for "Yes" (selected) and "No".

Input/Output

- Relay Input Detection: Set to "Normally Open (NO) Input".
 - Relay Input Action:
 - Normal (trigger while input active)
 - Call to Cancel (inbound call required after input deactivated and SIP monitoring mode must be set to monitor ring event on registered extension)
- Relay Output Mode: Set to "Normally Open (NO) Output".

Save

General Flash Patterns

Choose from 16 available patterns to suit the application requirement. The 8128 SIP Strobe Light uses 8 high intensity LEDs each capable of producing 643 lumens or 198 Candela. In addition to being very bright, the LEDs can be fired simultaneously or individually for interesting effects. Light output is equally bright over 360 x 180 degrees and also illuminates the mounting surface for even greater conspicuity.

Patterns 0 & 1 do not fire the center LEDs and are intended for a ceiling mount application where light is required in every horizontal direction but not straight down.

Pattern 11 does not fire the top and bottom LEDs and is intended for a wall mount application in a hallway with maximum conspicuity to the left, right, and center.

Flash Pattern Options Table

No	Description	Application		Intensity/Strobe		
		Wall	Ceiling	High	Med	Low
15	Classic strobe slow	●	●		●	
14	Classic strobe medium	●	●		●	
13	Classic strobe fast	●	●		●	
12	Flashing	●	●		●	
11	Side to side	●			●	
10	Pulse	●	●			●
9	Steady bright	●	●			●
8	Steady dim	●	●			●
7	Rotating strobe	●	●	●		
6	Multi-strobe slow bright	●	●	●		
5	Multi-strobe slow dimmed	●	●		●	
4	Multi-strobe fast bright	●	●	●		
3	Multi-strobe fast dimmed	●	●		●	
2	Multi-strobe and dim holdover	●	●	●		
1	Rotate slow		●		●	
0	Rotate fast		●		●	



PHOTO-SENSITIVITY in some people with epilepsy can trigger seizures from flashing or flickering lights. It is possible that some flash patterns of the 8128 SIP Strobe Light could trigger a seizure for some individuals under some conditions. High intensity patterns should only be selected if necessary for the 8128 SIP Strobe Light to be effective.

Test Flash Pattern

After selecting the flash pattern the test button may be used to activate the 8128 SIP Strobe Light.

Flash Pattern – (Ring/In-Use/Hold)

Select a flash pattern to signal a Ring, In-Use, and/or Hold action. This setting only applies to Subscribe/Notify modes.

Continuous

The 8128 SIP Strobe Light may be continuously active during an event, or emulate a telephone ring on/off cadence. Using a cadence will also ensure multiple 8128 lights using multicast remain synchronized.

Relay Input Detection

The relay input feature can be set to be active when open or closed. This will depend on the triggering source. Generally, normally closed circuits are preferred so that a wiring open fault will initiate activity.

Note: network connection is still required in order to use relay input activation mode.

Relay Input Action

The relay input may be used to trigger the 8128 SIP Strobe Light only while the input is active. Alternatively the relay input may be used to trigger the 8128 requiring a ring event to reset. If multicast is enabled, the Strobe can also activate other network devices from relay activation.

Relay Output Mode

When the 8128 SIP Strobe Light is active this contact output will be either closed or open according to this selection.

Multicast IP Addresses

Each 8128 SIP Strobe Light has its own IP address, and shares a common multicast IP and port number (multicast zone) for multicast packets. The Master unit transmits to a configurable multicast zone, and all the slave units listen to the multicast zones assigned to them. When a Master unit receives a valid SIP ring event, it will flash locally and also send out a special packet to the multicast zone. The network switches and router see the packet and deliver it to all the members of the group. The multicast IP and port number must be the same on all the Master and Slave units of one group. The user may define multiple zones by picking different multicast IP addresses and/or port numbers.

1. Multicast IP addresses range: 224.0.0.0/4
(from 224.0.0.0 to 239.255.255.255)
2. Port numbers range: 1 to 65535
3. By default, the 8128 Strobe Light is set to use the multicast IP address 224.0.2.60 and the port numbers 50000-50008

Make sure that the multicast IP address and port number do not conflict with other services and devices on the same network

Basic Settings Tab – Multicast (Master Settings)

Navigation Bar: Status, Basic Settings, Advanced Settings, System, Logout
Sub-navigation: SIP, Features, Multicast

Multicast Settings

Multicast Mode

Multicast Mode	<input type="radio"/> None <input checked="" type="radio"/> Master/Sender <input type="radio"/> Slave/Receiver
----------------	--

Multicast Master/Sender Settings

Master Zone	Zone 1
Send Flash Pattern and Cadence	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled <small>If enabled, all Slaves will use the Flash Pattern configured on the Master. If disabled, all Slaves will use their locally configured Flash Pattern.</small>
Send 8180-Compatible Control Signal	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled <small>Allow strobes to communicate with Algo's 8180 SIP Audio Alerter.</small>

Zone Definition

High Priority	224.0.2.60:50000
All Stations	224.0.2.60:50001
Zone 1	224.0.2.60:50002
Zone 2	224.0.2.60:50003
Zone 3	224.0.2.60:50004
Zone 4	224.0.2.60:50005
Zone 5	224.0.2.60:50006
Zone 6	224.0.2.60:50007
Low Priority	224.0.2.60:50008

Save

Multicast Mode (Master/Sender Selected)

If master is enabled the 8128 SIP Strobe Light will broadcast an IP stream when activated in addition to flashing locally. (Note, the 8128 cannot be both a multicast Master and Slave simultaneously).

Master Zone

Select the multicast zone to broadcast on.

Send Flash Pattern and Cadence

Enabling this option means all 8128 SIP Strobe Lights in the multicast zone will mimic the flash pattern of the multicast Master 8128 light regardless of their individual settings. If disabled then each Strobe may have a unique flash pattern according to its settings.

Send 8180-Compatible Control Signal

This option allows the 8128 SIP Strobe Light to activate Algo 8180 Audio Alerters via multicast. www.algosolutions.com/8180

Zone Definitions

Multicast IP addresses and ports are configured by default. These typically do not need to be changed unless they conflict with other multicast addresses on the network. If changed they must be changed on all 8128 SIP Strobe Lights in the multicast group.

Multicast zones are assigned a priority based on the list position. Each 8128 multicast Slave will flash from the highest priority active zone.

Basic Settings Tab - Multicast (Slave Settings)

The screenshot shows the ALGO 8128 SIP Strobe Light's configuration interface. The top navigation bar includes links for Status, Basic Settings (which is the active tab), Advanced Settings, System, and Logout. Below this is a secondary navigation bar with SIP, Features, and Multicast (the active sub-tab). The main content area is titled "Multicast Settings". Under "Multicast Mode", the "Slave/Receiver" option is selected. In the "Multicast Slave/Receiver Settings" section, checkboxes for "High Priority", "All Stations", and "Zone 1" are checked, while "Zone 2", "Zone 3", "Zone 4", "Zone 5", and "Zone 6" are unchecked. A "Low Priority" checkbox is also present. The "Zone Definition" section lists eight entries corresponding to the zones above, each with its IP:Port value: High Priority (224.0.2.60:50000), All Stations (224.0.2.60:50001), Zone 1 (224.0.2.60:50002), Zone 2 (224.0.2.60:50003), Zone 3 (224.0.2.60:50004), Zone 4 (224.0.2.60:50005), Zone 5 (224.0.2.60:50006), and Zone 6 (224.0.2.60:50007). A "Save" button with a checkmark icon is located at the bottom right of the form.

Multicast Mode (Slave Selected)

If Slave is enabled the 8128 SIP Strobe Light will activate when receiving a multicast message. Depending on the Master settings, the 8128 will mimic the Master flash pattern or follow use its own selected flash pattern.

Slave Zones

Select one or more multicast zones for the 8128 to monitor. Note that multicast zone priority is based on the zone definition list order (top to bottom).

Zone Definitions

See information in previous section under Master settings.

Advanced Settings Tab - Network

Navigation Bar: Status, Basic Settings, **Advanced Settings**, System, Logout

Sub-Tab: Network, Admin, Time, Provisioning, Additional Extensions, Advanced SIP

Network Settings

Network Interface

Protocol	<input checked="" type="radio"/> Static IP <input type="radio"/> DHCP
IP Address	<input type="text"/>
Netmask	<input type="text"/>
Gateway	<input type="text"/>
DNS Server	<input type="text"/>

802.1Q Virtual LAN

VLAN Mode	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
VLAN ID	<input type="text" value="0"/> <small>(i) Value range: 0 to 4094</small>
VLAN Priority	<input type="text" value="0"/> <small>(i) Value range: 0 to 7</small>

Differentiated Services

SIP (6-bit DSCP value)	<input type="text" value="0"/>
RTP (6-bit DSCP value)	<input type="text" value="0"/>

Advanced

Save

Protocol

DHCP is an IP standard designed to make administration of IP addresses simpler. When selected, DHCP will automatically configure IP addresses for each 8128 SIP Strobe Light on the network. Alternatively the 8128 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 0xFFFF 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)

Can provide 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 'Admin' tab selected in the top navigation bar. The 'Admin Settings' section contains several configuration groups:

- Admin Password:** Fields for 'Password' (containing '****') and 'Confirmation' (containing '****').
- General:** Fields for 'Device Name (Hostname)' (set to 'sipstrobe'), 'Introduction Section on Status Page' (radio buttons for 'On' and 'Off' with 'On' selected), and 'Web Interface Session Timeout' (dropdown set to '1 hour' with a note below about inactivity).
- Log Settings:** Fields for 'Log Level' (radio buttons for 'Error (Lowest)', 'Notice ("Event")', 'Info ("SIP")' (selected), and 'Debug (Highest)'), 'Log Size (1 ~ 1000 kB)' (set to '100'), and 'Log Method' (radio buttons for 'Local', 'Network', and 'Both' with 'Local' selected).
- High Availability:** Field for 'Hardware Watchdog' with radio buttons for 'Enabled' (selected) and 'Disabled'.
- Management:** Field for 'SNMP Support (v1 get only)' with radio buttons for 'Enabled' (selected) and 'Disabled'.

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

Password

Password to log into the 8128 SIP Strobe Light 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 soft reset in order to restore the password (as well as all other settings) back to the original factory default conditions.

Confirmation

Re-enter network admin password

Device Name

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 Size

Consult Algo technical support.

Log Method

Allows the 8128 SIP Strobe Light to write to external Syslog server if the option for external (or both) is selected.

Log Server

If external (or both) is selected this is the address of the Syslog server on the network.

Hardware Watchdog

Use on the advice of Algo technical support only.

SNMP Support (v1 get only)

Additional SNMP support is anticipated for future, but the 8128 SIP Strobe Light will respond to a simple status query for automated supervision. Contact Algo technical support for more information.

Advanced Settings Tab - Time

The screenshot shows the 'Time Settings' configuration page. It includes fields for 'Timezone' (set to Pacific Time) and 'NTP Time Server' (set to pool.ntp.org). A 'Save' button is located at the bottom right.

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

Time Zone

Select time zone.

NTP Time Server

Allows the 8128 SIP Strobe Light to synchronize to an external time server.

Advanced Settings Tab - Provisioning

The screenshot shows the ALGO 8128 SIP Strobe Light's web-based configuration interface. The top navigation bar includes tabs for Status, Basic Settings, Advanced Settings (which is currently selected), System, and Logout. Below this, a secondary navigation bar has tabs for Network, Admin, Time, Provisioning (which is selected and highlighted in blue), Additional Extensions, and Advanced SIP. The main content area is titled "Provisioning Settings". It contains two sections: "Mode" and "Settings". In the "Mode" section, there is a field for "Provisioning Mode" with radio buttons for "Enabled" (selected) and "Disabled". The "Settings" section contains fields for "Server Method" (radio buttons for "DHCP Option 66" and "Static" - selected), "Static Server" (text input field), "Download Method" (radio buttons for "TFTP", "FTP" - selected, and "HTTP"), "Auth User Name" (text input field), "Auth Password" (text input field with a small key icon), "Config Download Path" (text input field), and "Firmware Download Path" (text input field). At the bottom right of the settings section is a green "Save" button with a checkmark icon.

Note: It is recommended that Provisioning Mode be set to Disabled if this feature is not in use. This will prevent unauthorized re-configuration of the device if DHCP is used.

Provisioning allows installers to pre-configure 8128 SIP Strobe Light units prior to installation on a network. It is typically used for large deployments to save time and ensure consistent setups.

There are two different Provisioning methods that can be used: via DHCP Option 66 or via a Static Server. In addition, there are three different ways to download provisioning files from a "Provisioning Server": TFTP (Trivial File Transfer Protocol), FTP, or HTTP.

For example, 8128 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, in order for Provisioning to work.

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

Generic (for all Algo 8128 SIP Strobe Lights)

algop8128.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 an 8128 to the network
2. Access the 8128 Web Interface Control Panel
3. Configure the 8128 with desired options
4. Click on the System tab and then Maintenance.
5. Click "Backup" to download the current configuration file
6. Save the file settings.txt
7. Rename file settings.txt to algop8128.conf
8. File algop8128.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 8128 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 8128 with the MAC address specified in the configuration file name. Since all the necessary settings can be included in this file, the 8128 will be ready to work immediately after the configuration file is downloaded. The MAC address of each 81 can be found on the back label of the unit.

For more information, see the [Provisioning of Algo SIP Endpoints Guide.](#)

Advanced Settings Tab – Additional Extensions

The screenshot shows the 'Advanced Settings' tab selected in the top navigation bar. Under the 'Additional Extensions' sub-tab, there is a section titled 'More Monitored Extensions'. It lists five monitored extensions, each with an 'Enabled' radio button (set to 'Enabled') and a 'Disabled' radio button. Below each extension entry are input fields for 'Extension', 'Authentication ID', and 'Authentication Password'. A 'Save' button with a checkmark icon is located at the bottom right of the form.

Monitored Extension	Enabled	Disabled
#2 Monitored Extension	<input checked="" type="radio"/>	<input type="radio"/>
Extension	<input type="text"/>	
Authentication ID	<input type="text"/>	
Authentication Password	<input type="password"/>	
#3 Monitored Extension	<input checked="" type="radio"/>	<input type="radio"/>
#4 Monitored Extension	<input checked="" type="radio"/>	<input type="radio"/>
#5 Monitored Extension	<input checked="" type="radio"/>	<input type="radio"/>

Save

Up to 5 SIP extensions can be registered for notification alerting of multiple events. To configure additional extensions click "Enable" beside the target extension and enter the Extension, Authentication ID, and Authentication password.

Advanced Settings Tab – Advanced SIP

The screenshot shows the 'Advanced SIP Settings' page under the 'Advanced Settings' tab. It includes sections for 'SIP' and 'Server Redundancy'. The 'SIP' section contains fields for Outbound Proxy, STUN Server, Register/Subscribe Period (seconds), Keep-alive Method (radio buttons for None or Double CRLF), and Keep-alive Period (seconds). The 'Server Redundancy' section includes fields for Server Redundancy Feature (Enabled or Disabled), Backup Server #1, Backup Server #2, Polling Interval (set to 120 seconds), Poll Active Server (Enabled or Disabled), Automatic Failback (Enabled or Disabled), and Poling Method (radio buttons for SIP NOTIFY or SIP OPTIONS). A 'Save' button is at the bottom right.

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 8128 SIP Strobe Light 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 8128 SIP Strobe Light 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 8128 SIP Strobe Light 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.

Backup Server #1

If primary server is unreachable the 8128 SIP Strobe Light will attempt to register with the backup servers. If enabled the 8128 will always attempt to register with the highest priority server.

Backup Server #2

If backup server #1 is unreachable the 8128 SIP Strobe Light will attempt to register with the 2nd backup server. If enabled the 8128 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 still fine.

Polling Method

SIP message used to poll servers to monitor availability.

System Tab – Maintenance

The screenshot shows the 'System Maintenance' page with the following sections:

- Backup / Restore Configuration:** Includes fields for "Download Configuration File" (with a "Backup" button) and "Restore Configuration File" (with a "Browse..." button, "No file selected.", and a "Restore" button).
- Reboot:** Includes a "Reboot the device" button.
- Upgrade to New Firmware:** Includes fields for "Method" (radio buttons for "From Local Files" and "From URL", with "From Local Files" selected), "Firmware Image" (with a "Browse..." button, "No file selected."), "MD5 Checksum" (with a "Browse..." button, "No file selected."), and 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 8128 SIP Strobe Light device settings to factory default values.

Reboot the Device

Reboots the device.

Firmware Image

Point to the firmware image provided by Algo.

MD5 Checksum

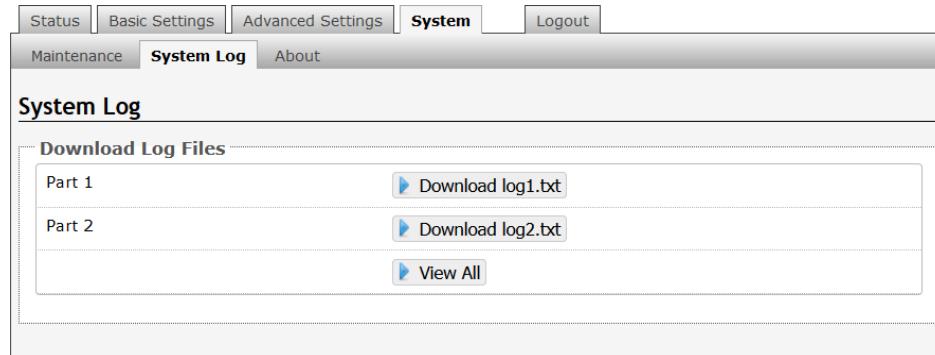
Point to the checksum file provided by Algo.

Upgrade 8128 SIP Strobe Light Firmware

1. From the top menu, click on System, then Maintenance.
2. In the Maintenance section, click Reboot, and wait 30-60 seconds for the device to reboot and the web page to automatically reload.
3. Login to the device again, and click on System.
4. In the Upgrade section, click on Choose File and select the 8128 firmware file to upload. Note that both the FW firmware and MD5 checksum files must be loaded.
5. Click Upgrade
6. After the upgrade is complete, confirm that the firmware version has changed (refer to top right of Control Panel).

System Tab – Network Logging

System log files are automatically created and assist with troubleshooting in the event the 8128 SIP Strobe Light does not behave as expected.



Optional Colored Lens Cover

The 8128 SIP Strobe Light is available with clear lens or optional colored covers in amber, blue, or red. The tinted color caps reduce the brightness and conspicuity of the Strobe.



Specifications

Power Input	48V PoE Class 0 (Max 12.95 W - Idle nominal 1 W)
Optical	8 LEDs 643 Lumens, 198 Cd
Strobe Triggers	SIP extension ring, Subscribe/Notify, multicast, dry contact input
Relay Output	Max 30V 50mA Switching
Relay Input	Max 1 kOhm <i>Note: network connection still required in order to use relay input activation mode.</i>
Flash Patterns	16 Selectable patterns
Programming	Web interface
Provisioning	TFTP, FTP, or HTTP.
NAT	STUN, CRLF Keep Alive
Environmental	-20 to +50° C; 10-95% RH non-condensing. Dry indoor location only unless wiring cavity protected from water ingress
Compliance	EN60950:2001, IEEE 802.3-2008, RFC3261, RoHS, CE, FCC, CSA (USA & Canada)

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.

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8128 SIP Strobe Light