

8128 SIP LED Strobe Light FW Version 2.3

Installation & Configuration



8128 Clear lens only

8128A Clear lens with AMBER cover 8128B Clear lens with BLUE cover 8128R Clear lens with RED cover

8128ABR Clear lens with 3 color cover kit



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Important Safety Information

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

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

DO NOT LOOK DIRECTLY at the 8128 Strobe while operating in close proximity as vision may be affected. The LEDs in the 8128 Strobe 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 Strobe could trigger a seizure for some individuals under some conditions. High intensity patterns should only be selected if necessary for the 8128 Strobe to be effective.

Wet or Outdoor Environments

The 8128 LED Strobe 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 LED Strobe 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 8128 Strobe

The 8128 Strobe 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 Strobe is typically wall or ceiling mounted. The eight efficient and powerful LEDs cast light 360×180 degrees with some light illuminating the surface surrounding the 8128 Strobe for additional visibility. Light output is equally intense in every direction unless a directional pattern is chosen.

The 8128 Strobe can be activated by:

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

If multiple 8128 Strobes are required, the multicasting feature requires only one of the 8128 Strobes to be activated by an input. The activated 8128 Strobe can simultaneously multicast as a master to activate the other 8128 Strobes configured as slaves.

The 8128 Strobe is configured from its web interface using a browser such as Google Chrome, Firefox, or Internet Explorer (other than IE 9).

Common Applications

- Telephone ring notification in noisy environments
- Silent ring notification in quiet environments
- Call center ACD queue threshold alert (by ringing)
- In-use (off-hook, on-air) notification for co-workers
- Message waiting notification
- OSHA safety compliance
- ADA compliance
- Door open visual alarm
- Voice paging pre-announce
- Security notification



Quick Start

- 1. Connect the 8128 Strobe to a 802.3af PoE network using the RJ45 jack in the back recess of the housing.
- 2. Allow the 8128 Strobe time to boot, about 30 seconds. During boot up the Strobe will turn on each LED individually as a test and then all on at low intensity until booting is completed.
- 3. If there is no DHCP server found the 8128 Strobe will default to the static IP address **192.168.1.111**. Most often however the 8128 Strobe will be assigned an IP address. To determine the IP address for the 8128 Strobe download the Algo locator tool to find Algo devices on your network: www.algosolutions.com/locator
- 4. Access the 8128 Strobe web page by entering the IP address into a browser and login using algo as the default password.
- 5. Enter the IP address for the SIP server into the SIP Domain field under the BASIC SETTINGS SIP tab.
- 6. Enter the SIP extension and password information.
- 7. Test by dialing the SIP extension for the Strobe . The Strobe should flash in response to ring (the 8128 Strobe will not answer a ring event).

Installation & Mounting

The 8128 Strobe 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.

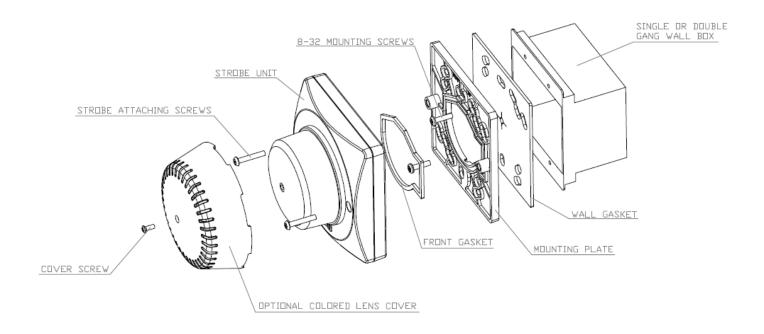
The 8128 Strobe can be mounted in any orientation but both the bracket and housing identify TOP. This keeps the bracket wiring channel on the bottom and the RJ45 jack on the top side.



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 for installation with wiring conduit.

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

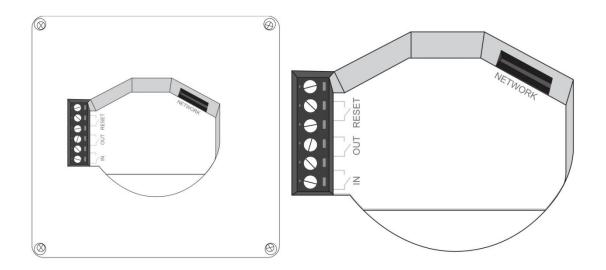


What's Included

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



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.

Terminal Block Relay In

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

Terminal Block Relay Out

By default these terminals provide a contact closure when the 8128 Strobe is active.

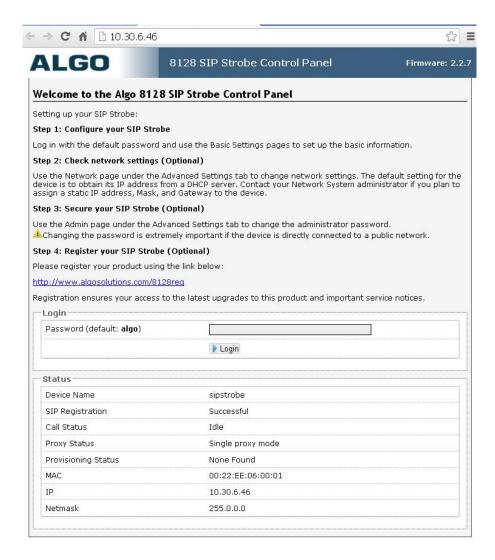
Terminal Block Reset

Connecting these terminals prior to power up will cause a reboot to factory default settings. Maintain the connection from power up until the 8128 Strobe LEDs turn on. Then release the connection which will cause the 8128 Strobe to reboot with default configuration.



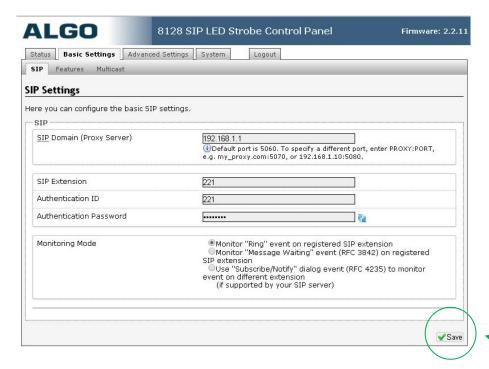
Web Interface Login

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.





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 Strobe.

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 password provided by the system administrator for the ID



Monitoring Mode

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

The monitoring mode selects whether SIP activation is by ring, message waiting, or subscribe/notify as described below.

Activating 8128 Strobe from SIP Ring Event

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

Activating 8128 Strobe from SIP Message Waiting Event

Set Monitoring Mode to "Monitor Message Waiting". When a message is left for the SIP extension then the 8128 Strobe will flash.

Activating 8128 Strobe Using Subscribe/Notify

If the 8128 Strobe alert mode is set to use Subscribe/Notify then an additional field appears asking for the Alert Extension. This is the SIP extension which the 8128 Strobe will monitor for events, which may be different from the SIP extension of the 8128 Strobe itself.





Subscribe/notify per SIP RFC 4235 allows a SIP extension to request status information for other SIP extensions.

The subscribe/notify information available from SIP servers varies by vendor and release. As of FW Version 2.3 only ring and in-use are enabled however it may also be possible to detect events such as message waiting or ACD queue status. Please contact Algo for current information.

Basic Settings Tab - Features



Flash Patterns

Choose from 16 available patterns. The 8128 Strobe contains 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

		Application		Intensity/Strobe		
No	Description	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		•		•	



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Flash Pattern Test

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



Cadence

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

Relay Input Detection Mode

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.

Relay Input Action

The relay input may be used to flash the 8128 Strobe while the input is active, or latch the 8128 Strobe in an active state until cancelled by ringing the SIP ring extension.

For example, if the 8128 Strobe is connected to a door contact it can be made to flash only while the door is open (input active). Or the door open event can trigger the 8128 Strobe which will remain active even after the door is closed. The 8128 Strobe in this mode (call to cancel) must receive a SIP ring event to reset.

Relay Output Mode

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

Multicast Overview

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

Without multicast, multiple 8128 Strobes 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 Strobe 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 Strobes are configured as multicast slaves and will activate in response to the multicast message.



The slave 8128 Strobes require a PoE network connection but do not require registration to the SIP server.

In fact, since the 8128 Strobe can also be activated by dry contact closure, it is possible to have one or multiple 8128 Strobes activate in unison over multiple sites without any SIP server at all.

Multicast IP Addresses

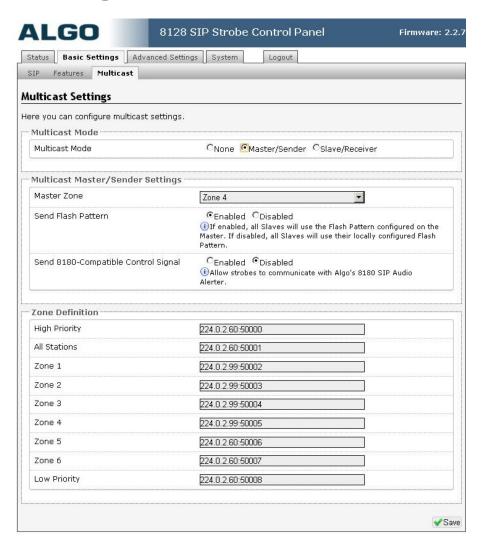
Each 8128 Strobe has its own IP address, and shares a common multicast IP and port number (multicast zone) for multicast packets. The master unit transmits to a configurable multicast zone, and all the slave units listen to the multicast zones assigned to them. When a master unit receives a valid SIP 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 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



Multicast Mode (Master Selected)

If master is enabled the 8128 Strobe will broadcast an IP stream when activated in addition to flashing. This option is available for all activation methods (although note that the 8128 Strobe cannot be both a multicast master and slave simultaneously).

Master Zone

Select the multicast zone to broadcast on.



Send Flash Pattern

Enabling this option means all 8128 Strobes in the multicast zone will mimic the flash pattern of the multicast master 8128 Strobe 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 Strobe 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 Strobes in the multicast group.

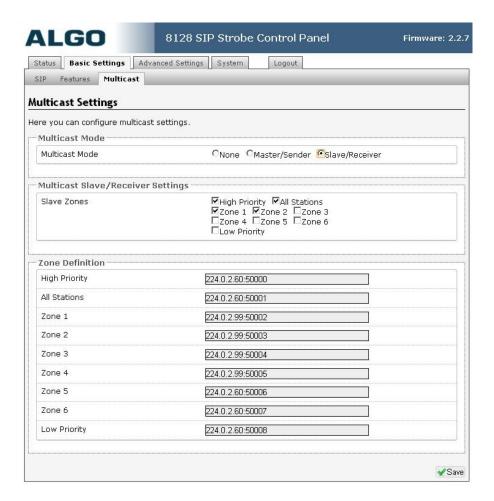
Multicast zones are assigned a priority based on the list position. Each 8128 Strobe multicast slave will flash from the highest priority active zone.

Synchronization

For flash patterns other than "steady" multiple 8128 Strobes activated by multicast will be synchronized only if the *Cadence* option is chosen to NOT be continuous under the *Basic Settings* tab.



Basic Settings - Multicast Slave Settings



Multicast Mode (Slave Selected)

If slave is enabled the 8128 Strobe will activate when receiving a multicast message. Depending on the settings of the Master, the 8128 Strobe will mimic the master flash pattern or use its own selected flash pattern

Slave Zones

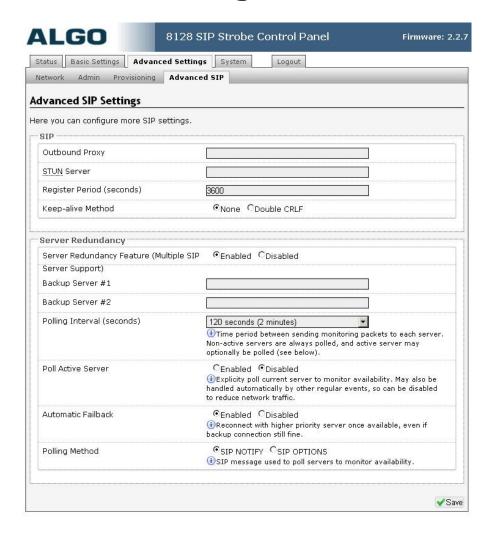
Select one or more multicast zones for the 8128 Strobe to monitor. Note that multicast zone priority is based on the zone definition list order (top to bottom).



Zone Definitions

See information in previous section under Master settings

Advanced Settings - 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 8128 Strobe will reregister 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 Strobe 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 Strobe 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 Strobe will attempt to register with the backup servers. If enabled the 8128 Strobe will always attempt to register with the highest priority server.

Backup Server #2

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



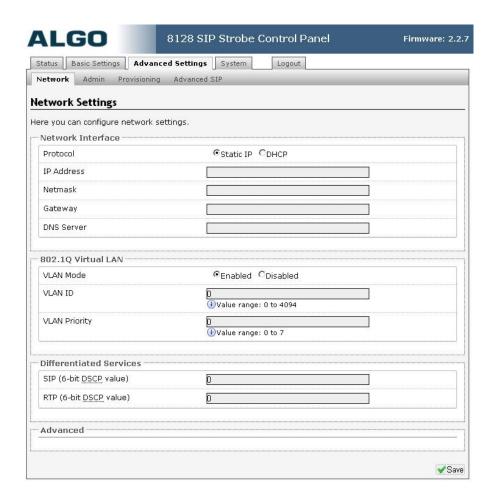
Automatic Failback

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

Polling Method

SIP message used to poll servers to monitor availability.

Advanced Settings - Network





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 Strobe on the network. Alternatively the 8128 Strobe 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)

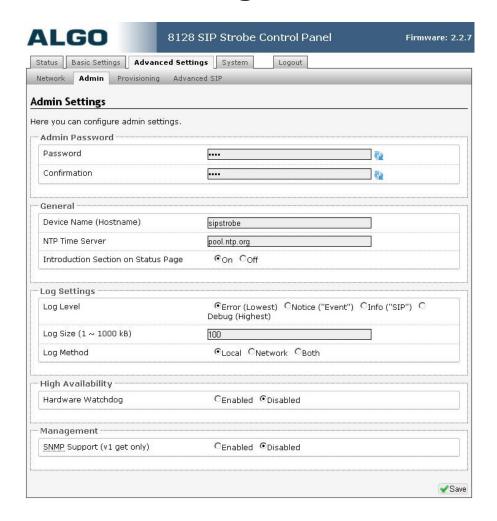
Can provide quality of service if the DSCP protocol is supported on your network. Can be specified independently for SIP control packets versus RTP audio packets.



DHCP Timeout

Length of time (in seconds) following a request from the 8128 Strobe to the DHCP server that the Strobe will wait before assuming the server is not available. After such time, the 8128 Strobe will use its default address of 192.168.1.111. Default time is 60 seconds.

Advanced Settings - Administration



Password

Password to log into the 8128 Strobe web interface. You should change the default password 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.

NTP Time Server

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

Introduction Section on Status Page

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

Log Level

Use on the advice of Algo technical support only.

Log Size

Consult Algo technical support

Log Method

Allows the 8128 Strobe 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

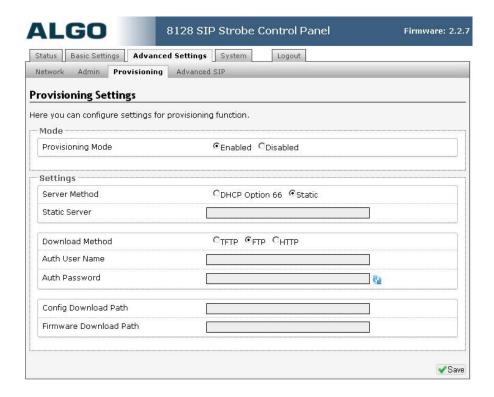
Use on the advice of Algo technical support only.

SNMP Support (v1 get only)

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



Advanced Settings - Provisioning



Provisioning allows installers to pre-configure 8128 Strobe 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 Strobe 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):

- 1. generic file algop8128.conf, or
- 2. specific file 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 Strobe has automatically downloaded the configuration file.



Generating a specific configuration file

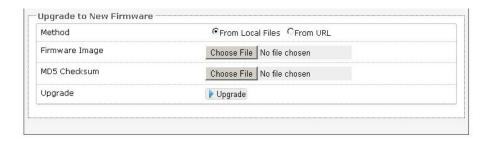
- 1. Follow steps 1 to 6 as listed in the section "Generating a generic configuration file".
- 2. Rename file settings.txt to algom[MAC address].conf (e.g. algom0022EE020009.conf)
- 3. File algom[MAC address].conf can now be uploaded on the Provisioning server.

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 8128 Strobe can be found on the back label of the unit.

System - Maintenance







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 Strobe 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 Strobe 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 Strobe 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 - Network Logging



Use on the advice of Algo technical support only.

Optional Colored Lens Cover

The 8128 Strobe 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 8128 Strobe.





Specifications:

Power Input: 48 V PoE Class 0 (Max 12.95 W - Idle nominal 1 W)

Size: 4.8" W x 4.8" H x 3.0" D (12.2cm W x 12.2cm H x 7.6

cm D)

Optical: 8 LEDs 643 Lumens, 198 Cd

Strobe Triggers: SIP extension ring, Subscribe/Notify, multicast,

dry contact input

Relay Output: Max 30 V 50 mA

Relay Input: Max 1 kOhm

Flash Patterns: 16 Selectable patterns

Programming: Web interface

Provisioning: TFTP, FTP, or HTTP.

NAT: STUN, CRLF Keep Alive

Environmental: -4 to +122 deg F (-20 to +50° C); 10-95% RH non-

condensing. Dry indoor location only unless wiring cavity protected from water ingress using supplied gaskets or

other protective measures.

Compliance: EN60950:2001, IEEE 802.3-2008, RFC3261, RoHS, CE,

FCC, CSA/UL (USA & Canada)



FCC Compliance

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 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: 1) Reorient or relocate the receiving antenna, 2) Increase the separation between the equipment and receiver, 3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected, or 4) Consult the dealer or an experienced radio/TV technician for help.



More products from Algo



8128 SIP and **1128** Analog (FXS or dry contact) LED Strobe Lights

Optional color caps for LED Strobe Lights







8180 IP loud ringer and wideband voice paging solution

1127 Desktop visual indicator





8036 SIP Video intercom with touch display & 8028 all weather Doorphone

1202 Retail assistance and emergency notification button

