

# AGB02 Fire Strobe Light



## Specifications

Voltage Range:	DC or Full-Wave Rectified 24-volt models – 18 to 28 volts
Power Consumption:	35mA 1.5W Max
Flash Frequency:	1-2.5 Hz self-Synchronized
Operating Temperature:	-10° C to 65° C
Brightness:	120 cd/m <sup>2</sup>
IP Rating:	IP54
Standard:	Clause 9.7 of BS5839, EN54-23: 2010, HKFSD circular 4/2001, UL1638

## General Description

AGB02 Fire Strobe Light utilizes super bright LEDs which generates a high-intensity light, visible from all sides of the lens to provide a visible notification signal for the purpose of life safety and property protection. It is ideal to be installed at hotels, apartments, hospitals, commercial buildings, residential buildings, shopping malls or wherever visible alarms are required.

Having considered power saving for the fire alarm system, we adopted the best quality LEDs, which consume less current while maintaining the brightness comparable to the traditional Xenon strobe does. Besides, customers can also save on material costs by slashing the battery and the battery charger size. For facilitating the wiring work, our strobes can achieve self synchronization through power cables and no additional signal cables or equipment are required.

**NOTICE:** This manual shall be left with the owner/user of this equipment.

### Fire Alarm System Considerations Power Supply Considerations

Panels typically supply DC filtered voltage or FWR (full-wave rectified) voltage. The system design engineer must calculate the number of units used in a zone based on the type of panel supply. Be certain the sum of all the device currents do not exceed the current capability of the panel. Calculations are based on using the device current found in the subsequent charts and must be the current specified for the type of panel power supply used.

## Wire Sizes

The designer must be sure that the last device on the circuit has sufficient voltage to operate the device within its rated voltage. When calculating the voltage available to the last device, it is necessary to consider the voltage drop due to the resistance of the wire. The thicker the wire, the less the voltage drop. Generally, for purposes of determining the wire size necessary for the system, it is best to consider all of the devices as “lumped” on the end of the supply circuit (simulates “worst case”).

Typical wire size resistance:

18 AWG solid:	Approximately 8 ohms/1,000 ft.
16 AWG solid:	Approximately 5 ohms/1,000 ft.
14 AWG solid:	Approximately 3 ohms/1,000 ft.
12 AWG solid:	Approximately 2 ohms/1,000 ft.

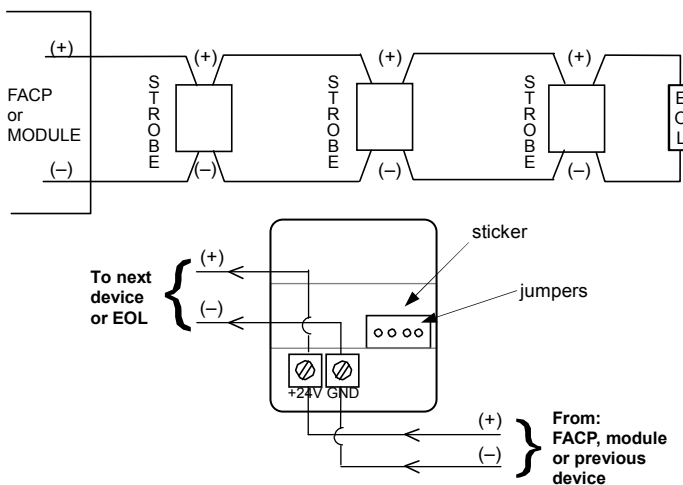
Example: Assume you have 10 devices on a zone and each requires 50 mA average and 2000 Ft. of 14 AWG wiring (total length=outgoing + return). The voltage at the end of the loop is 0.050 amps per device x 10 devices x 3 ohms/1,000 ft. x 2000 ft =3 volts drop.

The same number of devices using 12 AWG wire will produce only 2 volts drop. The same devices using 18 AWG wire will produce 8 volts drop. Consult your panel manufacturer’s specifications, as well as the operating voltage range to determine acceptable voltage drop.

Note: If class “A” wiring is installed, the wire length may be up to 4 times the single wire length in this calculation.

## System Wiring: Self-Synchronized Devices

Figure 1. Strobes powered in tandem by a 2-wire circuit:



## Flash Rate Selections

Strobes are factory set for 1.5Hz (90 flashes per minute). Four frequencies may be selected using the jumper plugs located on the printed circuit board. You can discover the sticker to find the jumpers.

Figure 2. Jumper Setting

	The right jumper is plugged: 1Hz (60 flashes per minute)
	No jumper is plugged: 1.5Hz (90 flashes per minute)
	The left jumper is plugged: 2Hz (120 flashes per minute)
	Both jumpers are plugged: 2.5Hz (150 flashes per minute)

**NOTE:** Always power down devices before setting jumpers.

## Mounting Diagrams

Figure 3: Removal of strobe from mounting plate:

To remove strobe from mounting plate, insert suitable slotted screwdriver as shown to unlock snap. While pushing in the slotted screwdriver to release the snap, pull back on the strobe. Hinge the strobe module, disengage the Locking Rib, and lift the strobe away from the mounting plate.

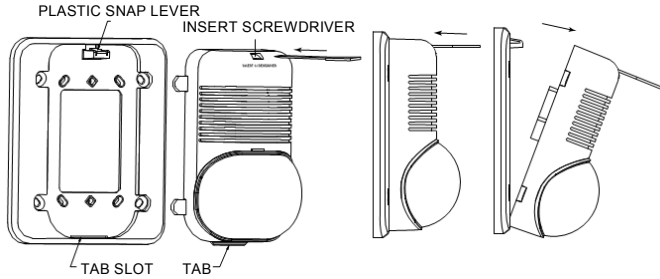
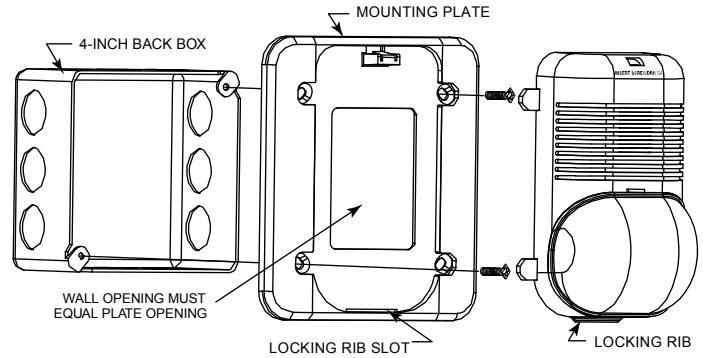


Figure 4: Strobe with mounting plate and back box



1. Mount plate to back box using screws A, making sure wall opening is equal to the plate opening.
2. Complete field wiring.
3. Insert locking rib into slot on plate.
4. Press into plate, unit will make a "click" when it has locked into place.

Screw types used for mounting: 8-32 x 3/4 flat head

## Please refer to insert for the Limitations of Fire Alarm Systems

### ⚠ WARNING

#### The Limitations of Strobes

**The strobe will not work without power.** The strobe gets its power from the fire/security panel monitoring the alarm system. If power is cut off for any reason, the horn/strobe will not provide the desired audio or visual warning.

**The signal strobe may not be seen.** The electronic visual warning signal uses extremely reliable LED lights. It flashes at least once every second. The strobe must not be installed in direct sunlight or areas of high light intensity (over 60 foot candles) where the visual flash might be disregarded or not seen. The strobe may not be seen by the visually impaired.

**The signal strobe may cause seizures.** Individuals who have positive photic response to visual stimuli with seizures, such as persons with epilepsy, should avoid prolonged exposure to environments in which strobe signals, including this strobe, are activated.

**The signal strobe cannot operate from coded power supplies.** Coded power supplies produce interrupted power. The strobe must have an uninterrupted source of power in order to operate correctly.

#### Two-Year Limited Warranty

ATM warrants its enclosed strobe to be free from defects in materials and workmanship under normal use and service for a period of two years from date of manufacture. ATM makes no other express warranty for this strobe. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the repair or replacement of any part of the strobe which is found to be defective in materials or workmanship under normal use and service during the two year period commencing with the date of manufacture. After phoning ATM's service number for a Return Authorization number, send defective units postage prepaid to ATM or the distributor.

Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to repair or replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.