

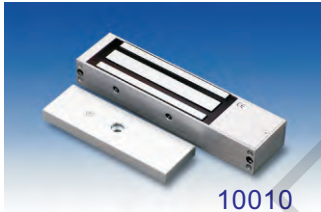
10010 series Standard Electromagnetic Lock



10020BZ



10020DS



10010



10020



Features

- High reliability
- Holding force up to 1200 lbs
- Fail-safe (Power Lock)
- Anodized aluminum casing
- MOV provides spike and surge protection
- Dual voltage 12 or 24 VDC (selectable) 10020BZ: 12VDC
- Anti-Residual magnetism function

Statement

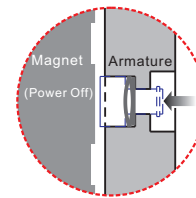
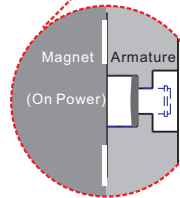
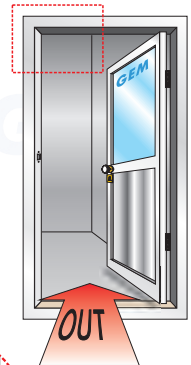
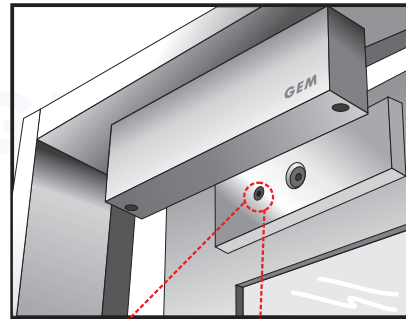
The 10010 and 10020 series are high quality and safety range of standard fail-safe electromagnet locks that is simply, works well in order to effectively secure with doors. This lock is recommended for applications which required higher levels of access and egress control and is suitable for fire doors and emergency exit doors.

The 10010 and 10020 series are designed for single doors and are suitable for outswing applications. Installation of inswing door, narrow-style frames requires the used an additional bracket. with the accessories provided, the lock can be used on wooden, and even metal door.

Specifications

- Operating Voltage: 12/24 VDC
- Current Draw: 500mA/12VDC, 250mA/24VDC (at temperature 20°C)
- Operating Temperature: -10~55°C (14~131°F)
- Humidity: 0~95% non-condensing.
- Holding Force: Up to 1200 lbs (545 Kg)
- Dimensions:
 - Magnet: (L) 267(265), (W) 68, (D) 40 mm
 - Armature Plate: (L) 185, (W) 61, (D) 16 mm
 - Mounting Plate: (L) 267(265), (W) 40, (D) 5 mm
- Special Finishes for magnet and armature plate: Zinc plated
- Epoxy Potting Compound: E87252 (S), UL94V-0
- Net Weight : 4.8 Kg

Regular Installation



Anti-residual statement

Our electromagnet locks feature Anti-Residual Magnetism (ARM) which ensures the door can be opened without any resistance from left over magnetism imparted to the armature plate

Operating Features

10020: Bond sensor output



Indicates the locked & unlocked status with visible LED indicator.

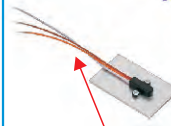
Bond sensor output : SPDT rated: 0.5A/125VAC; 1A/24VDC

10020BZ: Buzzer Alarm



Door Held Open Alarm is an auditory feedback for user. Alarm sounds when the door is not closed and has exceeded a specified time limit. VR timer is adjustable from 1 to 20 seconds.

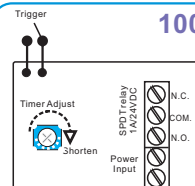
10020DS: Door status



Door Status Sensor indicates the door is in an open or closed status.

Door status output : SPDT rated: 0.2A/12VDC

10020TD: Relock time delay



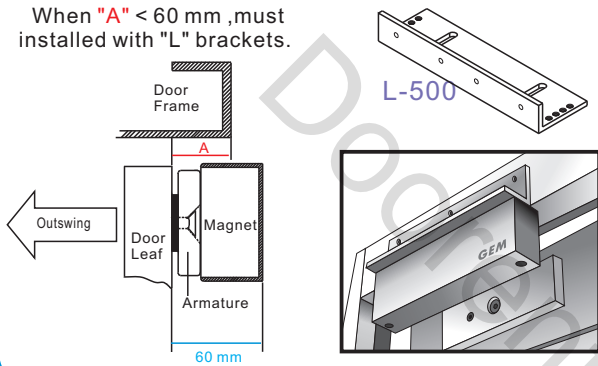
Ensures the automatic lock mode after the door is closed properly and it can be adjusted from 1 to 80 seconds.

Optional Brackets

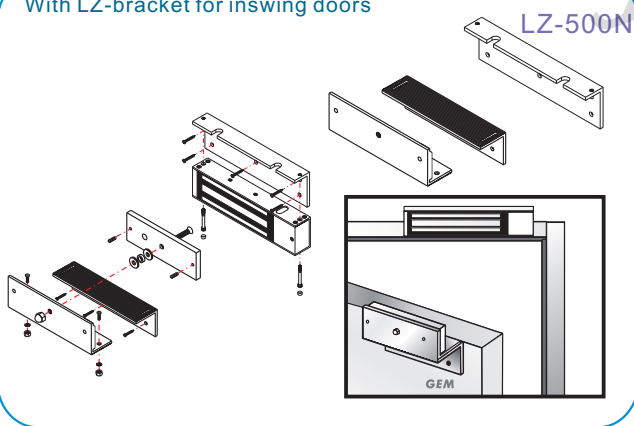
Brackets installation are according to door swing direction and door frame type , e.g. narrow frame door , frameless glass door , inswing door , etc.

With L-bracket for narrow frame doors

When "A" < 60 mm , must installed with "L" brackets.



With LZ-bracket for inswing doors



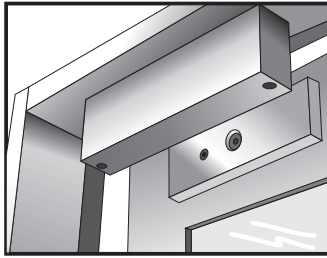
Warranty

The product is warranted against defects in material and workmanship while used in normal service for a period of 5 years from the date of sale to the original customer. The GEM policy is one of continual development and improvement; therefore GEM reserves the right to change specifications without notice.

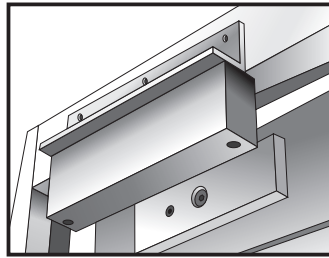
Electromagnetic Lock Installation Instruction (Indoor Series)

Optional Bracket

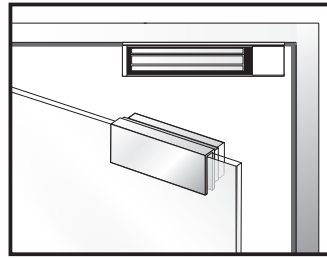
Brackets installation are according to door swing direction and door frame type , e. g. narrow frame door , frameless glass door , inswing door , etc.



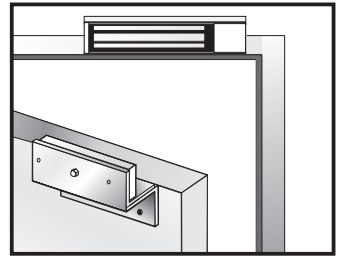
Regular Installation
(outswing door)



With L-bracket for narrow
frames (optional)

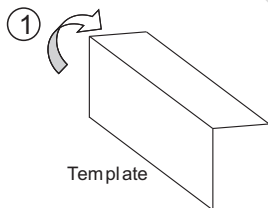


With U-bracket for frameless
glass door (optional)



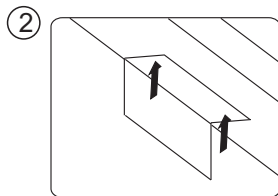
With LZ-bracket for inswing
door (optional)

Regular Installation

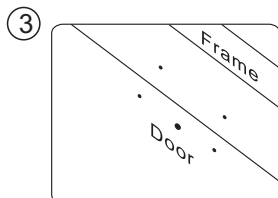


1 Fold the mounting template as a 90° angle.

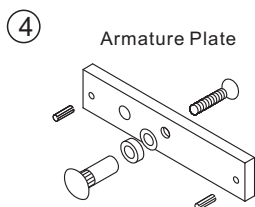
Template



2 Place the template to the proper position of the door and frame. Mark the hole position of template to the door frame.

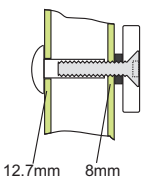


3 Drill the holes according to the mark.



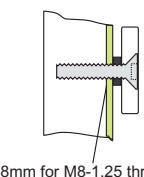
4 **Armature Plate**
Please install the armature plate as the diagram. (Different dimension of the drilling holes are according to the door type as below instruction)

Hollow Metal Door



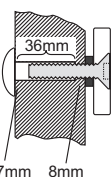
12.7mm 8mm

Reinforced Door



6.8mm for M8-1.25 thread

Solid Door



12.7mm 8mm

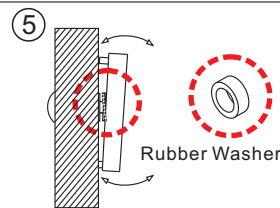
Drill a Ø8mm hole through door, from sexnut bolt side, enlarge to Ø12.7mm.

Drill a Ø6.8mm hole and tap for M8x12.5 thread.

Drill a Ø8mm hole through door from sexnut bolt side enlarge to Ø 12.7mm, 36mm in depth.

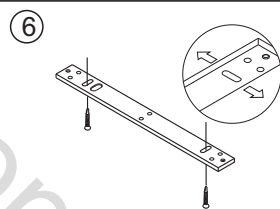
Recommendation:

- Micro EM-locks (300 LBS) maximum thickness of door is 44 mm.
- Mini EM-locks (600 LBS) maximum thickness of door is 50 mm.
- Midi EM-locks (800 LBS) maximum thickness of door is 48 mm.
- Maxi EM-locks (1200 LBS) maximum thickness of door is 46 mm.

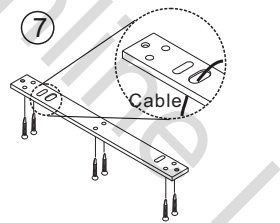


5 The rubber washer make the armature plate adjustable in order to reach the proper combination with magnet lock.

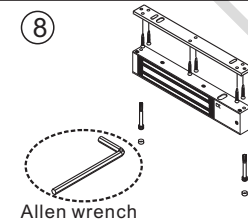
Rubber Washer



6 Insert the mounting screws. The mounting plate can be adjusted.

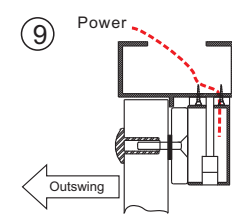


7 Fix the mounting plate on the door with mounting screws



8 Use the Allen wrench and fixing bolt to tighten the electromagnet lock to mounting plate.

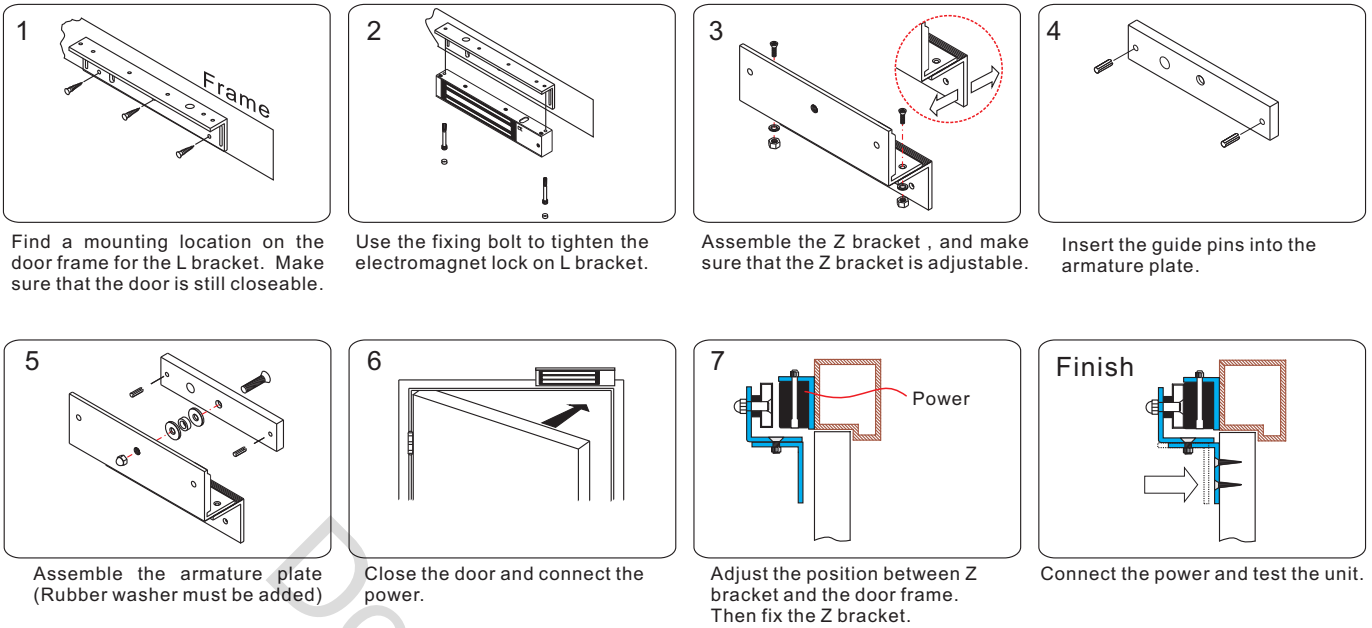
Allen wrench



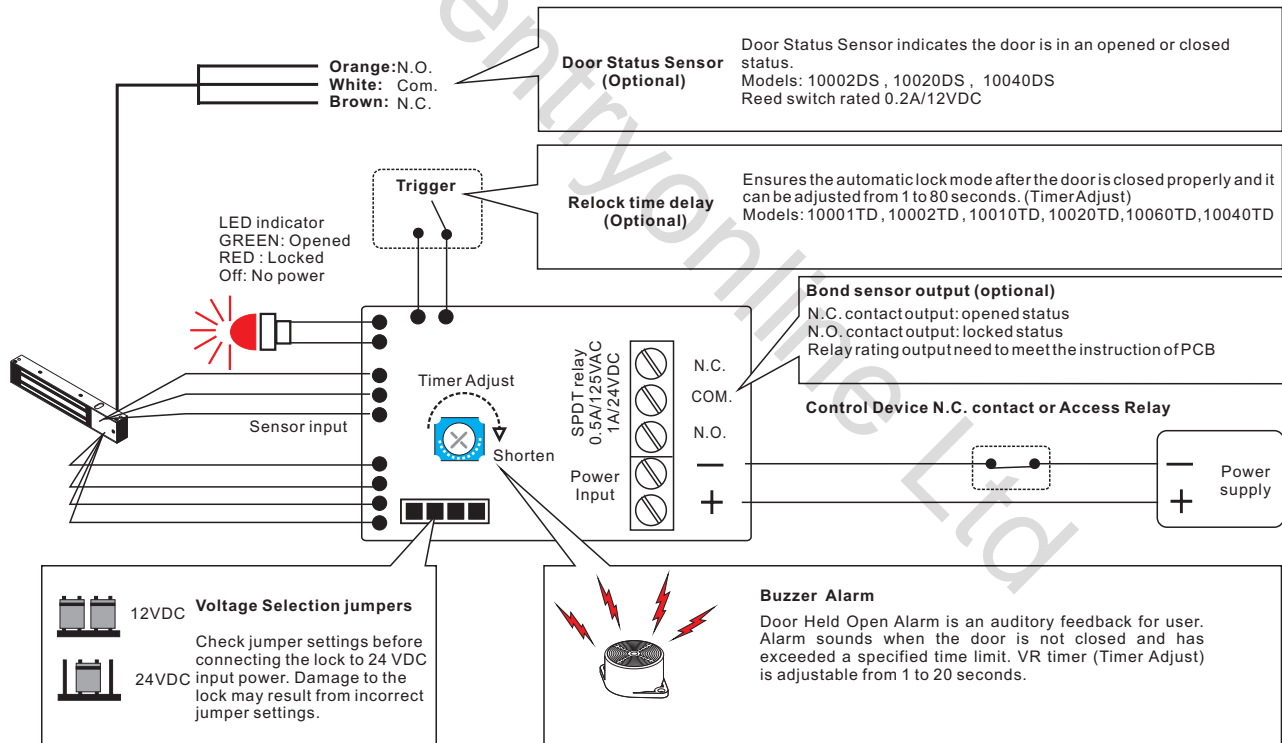
9 Connect the power and test the unit.

Outswing

With LZ bracket for Inswing doors



Connecting Diagram



Trouble Shooting

Problem	Possible Cause	Solution
Door does not lock	No power	Make sure the wires are connected properly Check that the power supply is connected and working properly Make sure the lock switch is wired correctly
Low holding force	Poor contact between electromagnet and armature plate	Make sure if the armature plate is deformed? Make sure if the rubber washer was used between magnet lock and armature plate Make sure the contact surfaces of the electromagnet and armature plate are clean and free from dust
	Low voltage or incorrect voltage setting	Ensure the electromagnet lock is set for the correct voltage. Check for proper voltage at the electromagnetic locks input. If low, determine if the correct wire gauge is being used to prevent excessive voltage drop.
Sensor output is not functioning	A secondary diode was installed across the electromagnet lock	Remove any diode installed across the magnet for "spike" suppression. (The magnet is fitted with a metal oxide varistor to prevent back EMF)
	Misalignment between the reed switch and electromagnet lock	Make sure the armature plate and electromagnet lock are aligned correctly