# 10010 series
# Standard Electromagnetic Lock

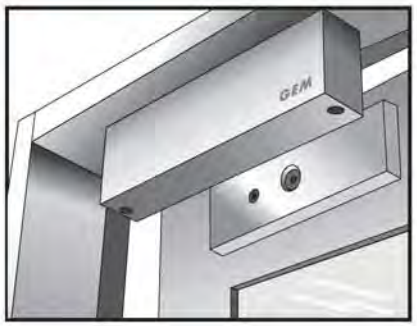




RoHS Compliant

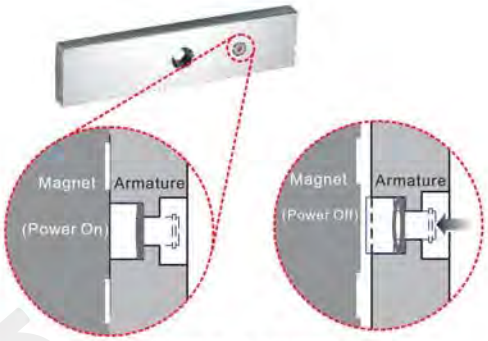
CE TÜV

## Regular Installation





## Anti-residual statement




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

## Features

- ***High reliability***
- ***Holding force up to 1200 lbs***
- ***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 a high quality and safety range of standard fail-safe electromagnet locks that are simply and work well in order to effectively secure doors . These locks are recommended for applications which require higher levels of access control and are 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 on inswing door , narrow-style frames requires the use of additional brackets . With the accessories provided , the locks can be used on wooden , and even metal door.

## Specification

- Operating Voltage: 12/24 VDC
- Current Draw: 500mA/12VDC, 250mA/24VDC (at 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

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## Operating Features

**10020**: Bond sensor output

Indicate 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 users. The alarm sounds when the door is not closed and that has exceeded a specified time limit. VR timer is adjustable from 1 to 80 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

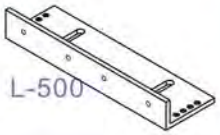
Ensure automatic locking after the door is closed properly. Relock time delay can be adjusted from 1 to 80 seconds.

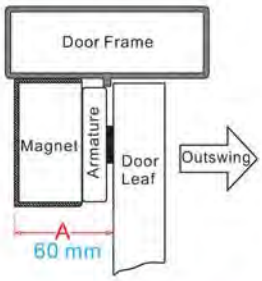
## Optional Brackets

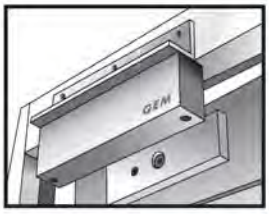
Bracket installation is according to door swing direction and door frame type , e.g. narrow frame door , frameless glass door , inswing door , etc.

With L-bracket for narrow frame doors

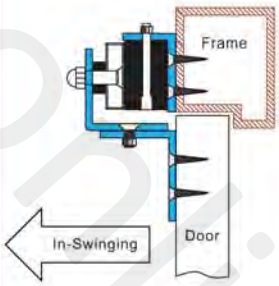
When "A" < 60 mm ,must installed with "L" brackets.

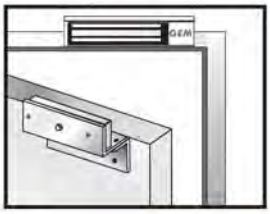


LZ-bracket for inswing doors

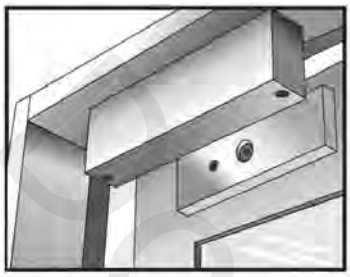



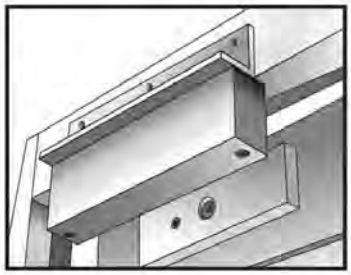
# Electromagnetic Lock Installation Instruction
# (Indoor Series)

## Optional Bracket

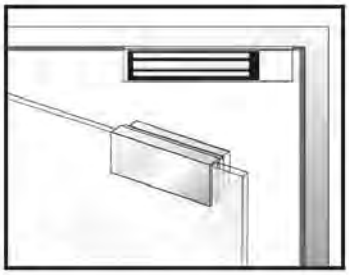
Bracket installation is according to door swing direction and door frame type ,e. g. narrow frame door , frameless glass door, inswing door , etc.



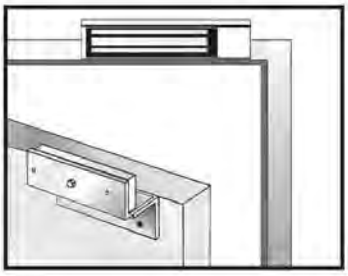
Regular Installation
(outswing door)



L-bracket for narrow
frame (optional)



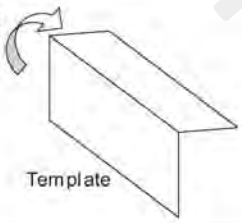
U-bracket for frameless
glass door (optional)



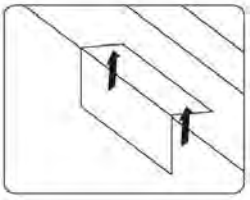
LZ-bracket for inswing
door (optional)

## Regular Installation

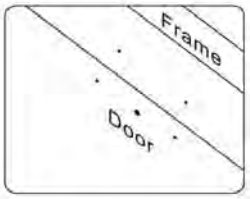
① Fold the mounting template 90°



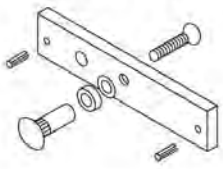

② Place the template to the proper position of the door and frame. Mark the hole positions of the template on the door and frame.

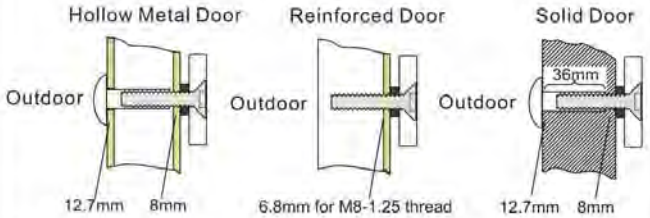


③ Drill the holes according to the marks.




④ Please install the armature plate as illustrated here. (Dimensions of the holes are depending on the door types as illustrated below.)




Drill a Ø8mm hole through door, on closing side enlarge to Ø12.7mm by a sexnut blot on the opening side.

Drill a Ø6.8mm hole and tap on closing side a M8x12.5 thread.

Drill a Ø8mm hole thrugh door on closing side enlarge to Ø 12.7mm, by a sexnut blot on the opening side. The depth is 36mm.

***Recommendation:***

For Micro EM-locks (300 LBS), maximum thickness of door is 44 mm.

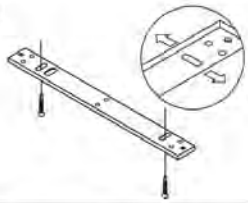
For Mini EM-locks (600 LBS), maximum thickness of door is 50 mm.

For Midi EM-locks (800 LBS), maximum thickness of door is 48 mm.

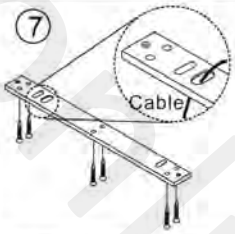
For Maxi EM-locks (1200 LBS), maximum thickness of door is 46 mm.

⑤ The rubber washer makes the surface of the armature plate adjustable in order to completely fit the surface of magnetic lock.

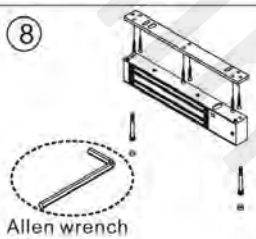

⑥ Fasten the mounting plate with the mounting screws. The position of the mounting plate should be adjustable.



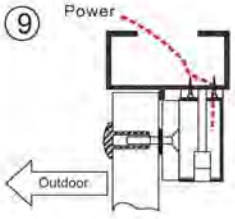
⑦ Fix the mounting plate on the door with mounting screws



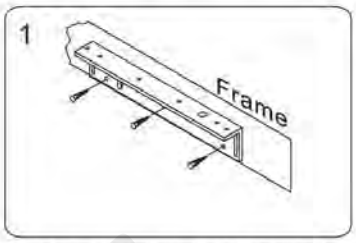

⑧ Use the Allen wrench and fixing bolts to tighten the electromagnetic lock to mounting plate.



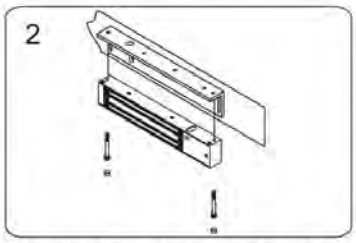

⑨ Connect the power and test the unit.



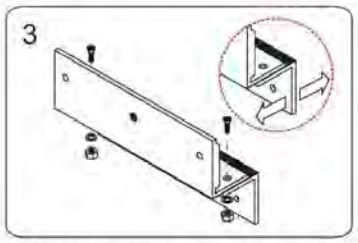
## LZ bracket for Inswing doors



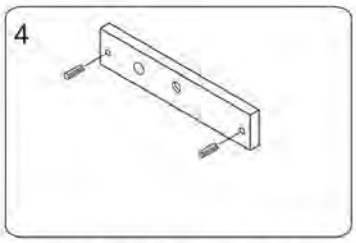

Find a mounting location on the door frame for the L bracket. Make sure that the door is still closeable.



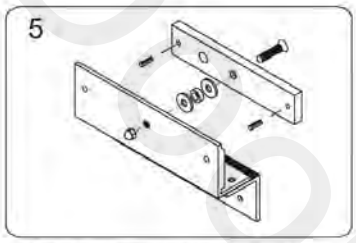

Use the fixing bolt to tighten the electromagnetic lock on L bracket.



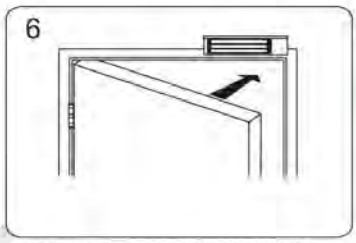

Assemble the Z bracket, and make sure that the position of the Z bracket is adjustable.



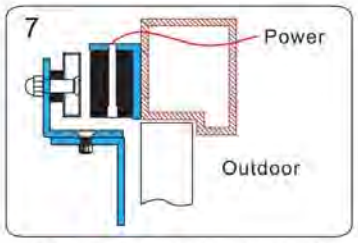

Insert the guide pins into the armature plate.



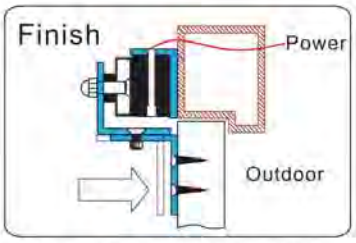

Fasten the armature plate to the Z bracket (Rubber washer must be added)




Close the door and connect the power.

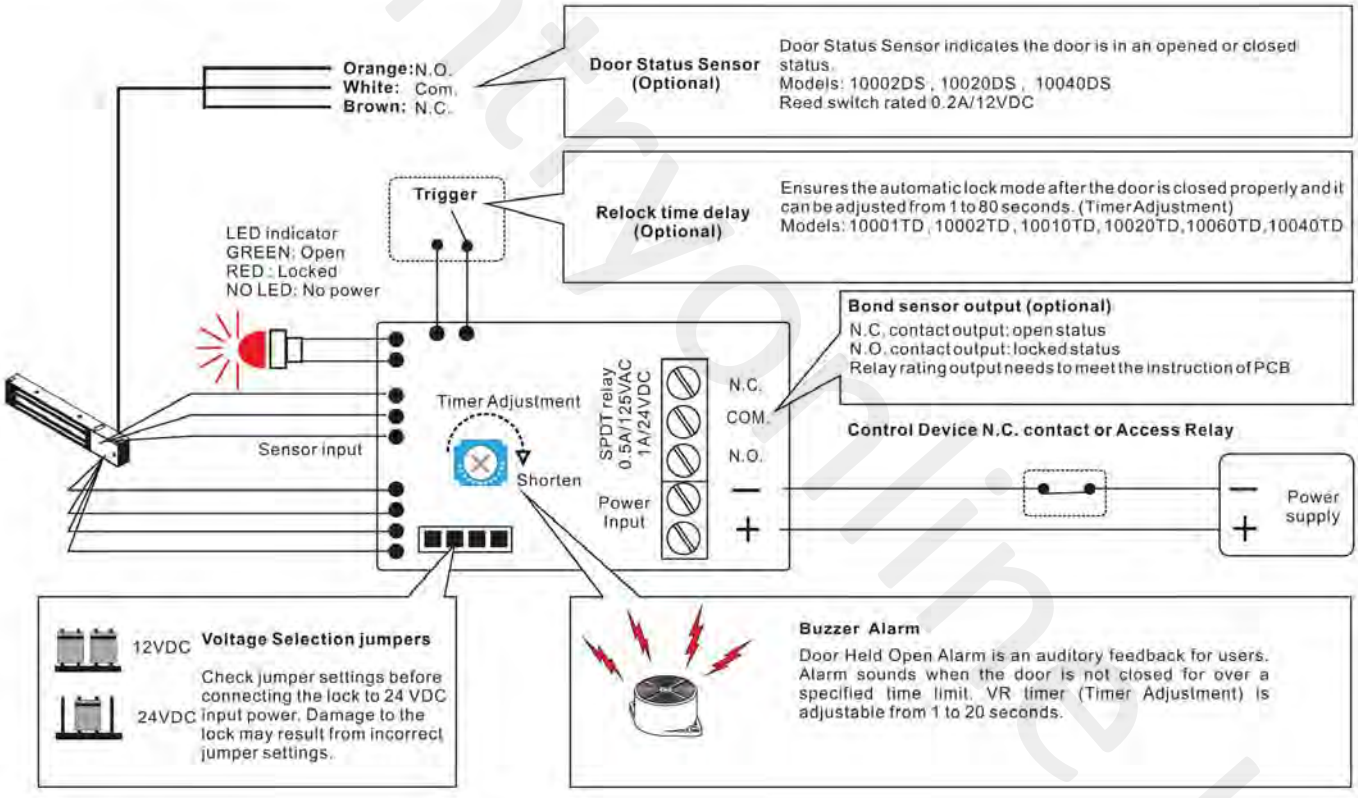



After the maglock attracts the armature plate, adjust the position between Z bracket and the door. Then fix the Z bracket.




Connect the power, close the door and test the unit.

## Connecting Diagram




## Trouble Shooting

| Problem | Possible Cause | Solution |
|---|---|---|
| Door does not lock | No power | Make sure the wires are connected properly<br>Check that the power supply is connected and works properly<br>Make sure the lock switch is wired correctly (N.C.) |
| Low holding force | Poor contact between electromagnet and armature plate | Make sure if the armature plate is deformed<br>Make sure if the rubber washer was used between the bracket lock and armature plate<br>Make sure the contact surfaces of the electromagnet and armature plate are clean and free from dust |
| | Low voltage or incorrect voltage setting | Check the electromagnet lock is set for the correct voltage.<br>Check the voltage at the of input electromagnetic locks. 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 electromagnetic 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 armature plate and electromagnetic lock | Make sure the armature plate and electromagnetic lock are aligned correctly |