

# GL-1200F WaterProof Electromagnetic Lock



Fire Exposure and Hose Stream Tests were conducted in accordance with the standard, "Positive Pressure Fire Tests of Door Assemblies," ANSI / UL 10B and 10C, uniform building code standard UBC 7-2 (1997).

## Features

- High reliability
- Dual voltage 12 or 24 VDC (selectable)
- MOV provides spike and surge protection
- Anti-Residual magnetism function
- Holding force up to 1200lbs

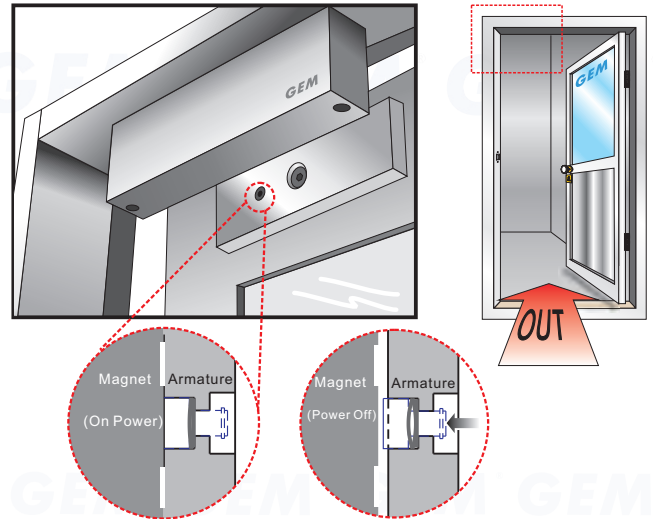
## Statement

GL-1200F Standard Waterproof Electromagnet Lock (Face Mount) The GL1200-F is part of GEM's waterproof electromagnetic lock series. It is a standard size magnetic lock with a holding force up to 1200 lbs (545 kg). With its face mount design, it is suitable for controlling access on large sliding doors and gates. The GL-1200F features dual voltage input, accepting either 12 VDC or 24 VDC. It is also available with reed switch as the GL1200F-R, which can detect whether the door is locked or unlocked. For use with sliding doors, the optional L-bracket, L-1200, is recommended. For inswing doors, the optional Z-bracket, Z-500N, is also available.

## Specifications

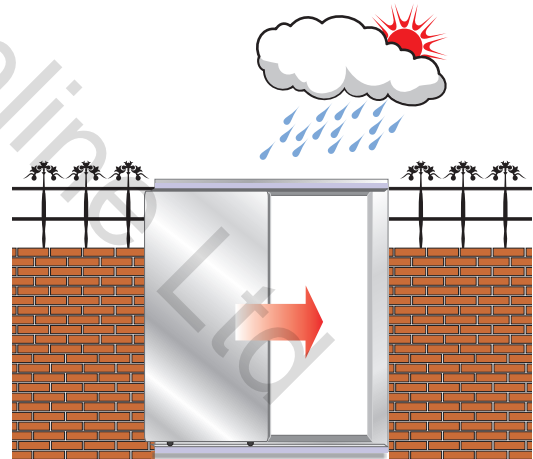
- Operating Voltage: 12/24VDC
- Current Draw: 500mA/12VDC , 250mA/24VDC (at temperature 20°C)
- Bond sensor output (GL-1200F-R): 0.5A/20VDC
- Operating Temperature: -10~55°C (14~131°F)
- Humidity: 0~95% non-condensing.
- Holding Force: Up to 1200 lbs (545 Kg)
- Dimensions:
  - Magnet:(L) 202, (W) 62, (D) 40 mm
  - Armature Plate:(L) 185, (W) 62, (D) 16 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



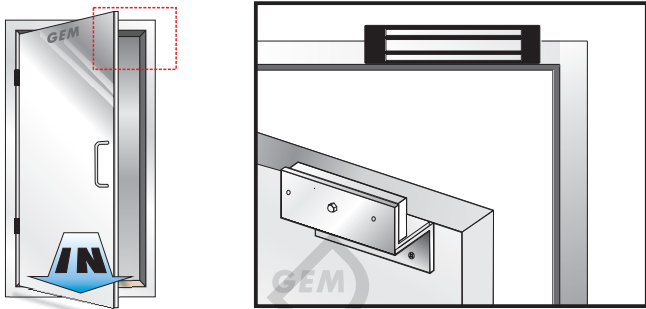
This series of Waterproof Magnetic Lock is made with epoxy potting compound and is protected by this compound. Also, GEM Waterproof Series Magnetic Locks have been proved to have withstood a water resistance as established in accordance with the test procedures of IPX7, IPX8 through a trusted third party. Therefore users need not worry that the lock will be rusted or sparked, if the lock is using in outdoor applications and installing in confined space where any inflammable gas.

## Warranty

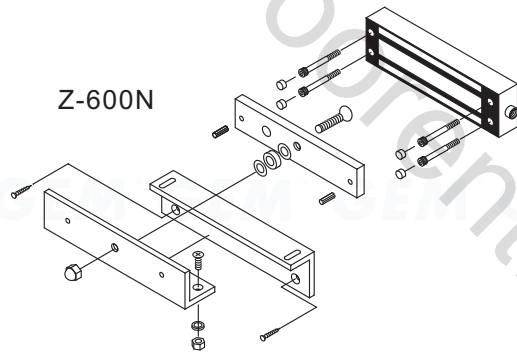
The product is warranted against defects in material and workmanship while used in normal service for a period of 5 years from the date of sale to the original customer. The GEM policy is one of continual development and improvement; therefore GEM reserves the right to change specifications without notice.

Optional Brackets

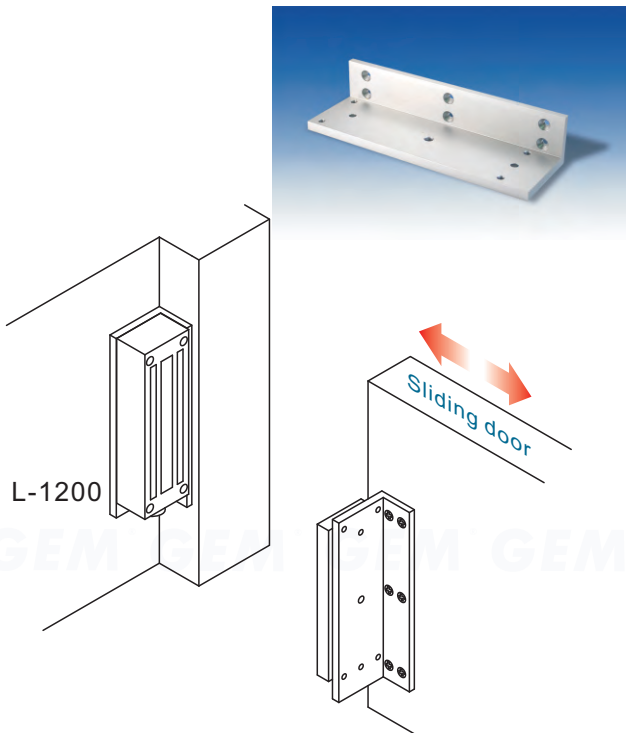
With Z-bracket for inswing doors



Z-600N



With L-bracket for sliding door

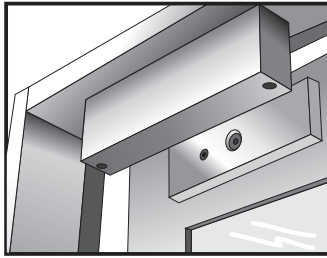


L-1200

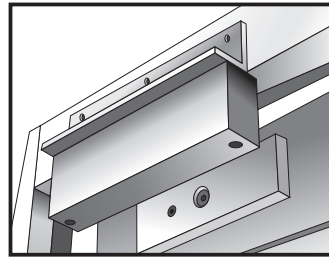
# Electromagnetic Lock Installation Instruction (Indoor Series)

## Optional Bracket

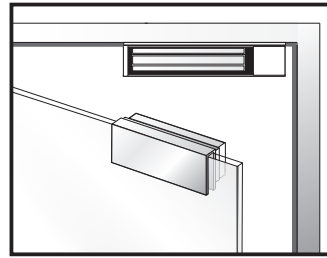
Brackets installation are according to door swing direction and door frame type ,e. g. narrow frame door , frameless glass door, inswing door , etc.



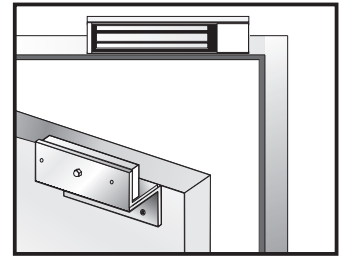
Regular Installation  
(outswing door)



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.

Frame  
Door

**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)

<p><b>Hollow Metal Door</b></p> <p>12.7mm 8mm</p>	<p><b>Reinforced Door</b></p> <p>6.8mm for M8-1.25 thread</p>	<p><b>Solid Door</b></p> <p>12.7mm 8mm 36mm</p>
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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

Cable

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

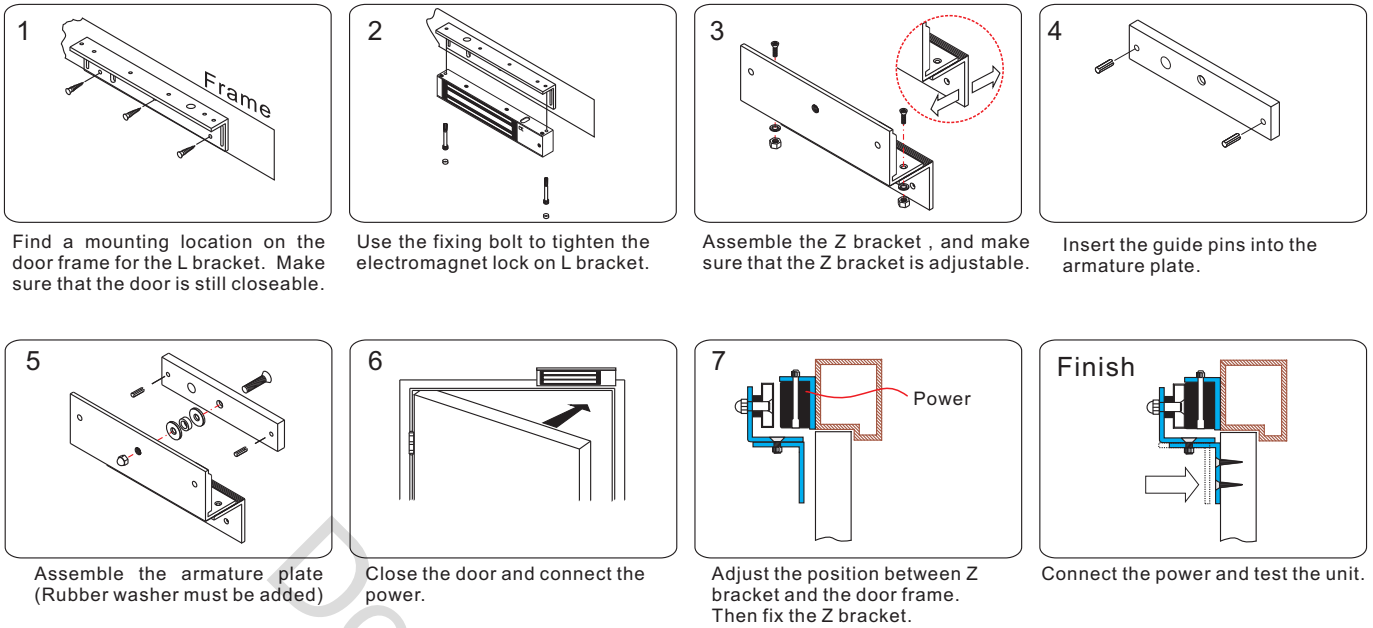
Allen wrench

**9** Connect the power and test the unit.

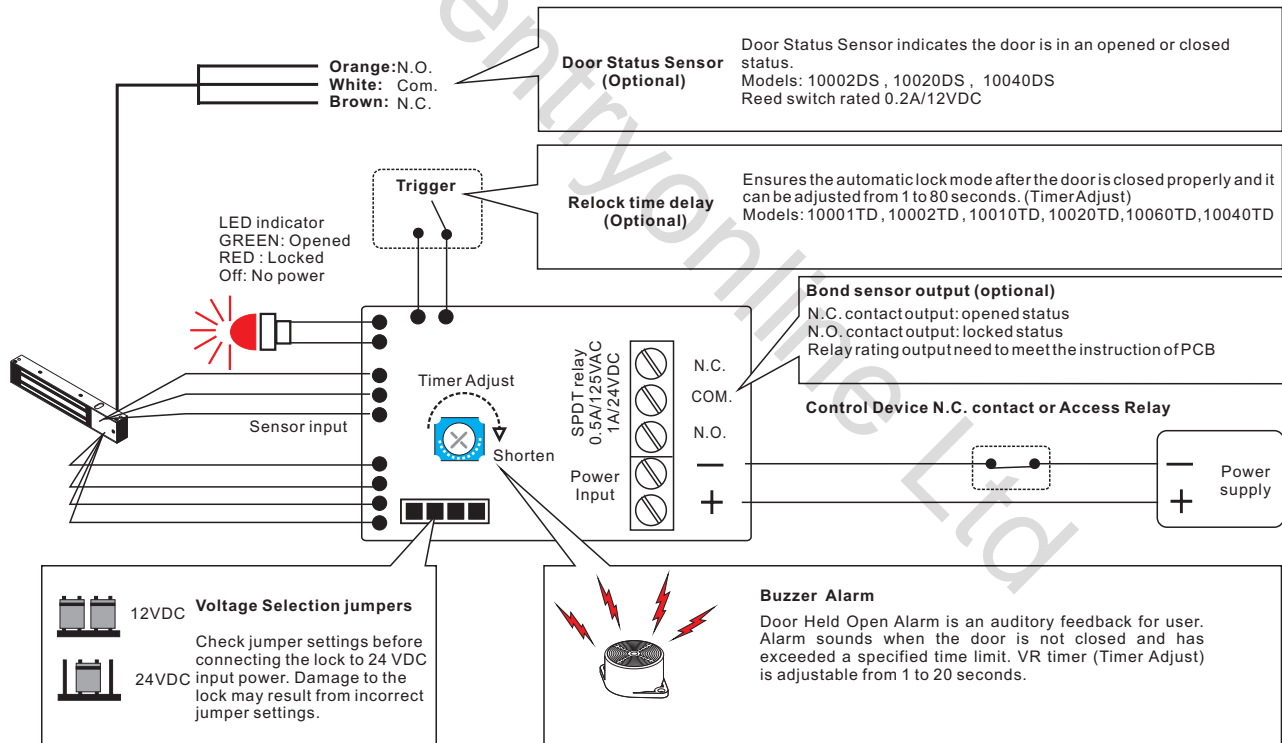
Power

← 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