

## Electromagnetic Lock Quick Installation Instructions

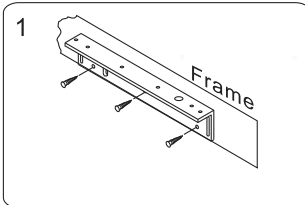
(MAGLOC GEM600M-UL and MAGLOC GEMD\*MQI-UL )

### For Outswing Doors

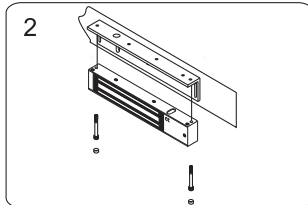
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| <p>①</p> <p>Template</p> <p>Fold the mounting template 90°</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>⑤</p> <p>Rubber Washer</p> <p>The rubber washer makes the surface of the armature plate adjustable in order to completely fit the surface of magnetic lock.</p>       |                                                                                                                                                                                          |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                 |
| <p>②</p> <p>Frame</p> <p>Door</p> <p>Place the template to the proper position of the door and frame. Mark the hole positions of the template on the door and frame.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>⑥</p> <p>Fasten the mounting plate with the mounting screws. The position of the mounting plate should be adjustable.</p>                                             |                                                                                                                                                                                          |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                 |
| <p>③</p> <p>Frame</p> <p>Door</p> <p>Drill the holes according to the marks.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>⑦</p> <p>Cable</p> <p>Fix the mounting plate on the door with mounting screws</p>                                                                                     |                                                                                                                                                                                          |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                 |
| <p>④</p> <p>Armature Plate</p> <p>Please install the armature plate as illustrated here. (Dimensions of the holes are depending on the door types as illustrated below.)</p> <table border="0"> <tr> <td> <p>Hollow Metal Door</p> <p>Outdoor</p> <p>12.7mm 8mm</p> <p>Drill an 8mm hole through door, on closing side enlarge to 12.7mm by a sexnut bolt on the opening side.</p> </td> <td> <p>Reinforced Door</p> <p>Outdoor</p> <p>6.8mm for M8-1.25 thread</p> <p>Drill a 6.8mm hole and tap on closing side a M8x1.25 thread.</p> </td> <td> <p>Solid Door</p> <p>Outdoor</p> <p>12.7mm 8mm 36mm</p> <p>Drill a 8mm hole through door on closing side enlarge to 12.7mm, by a sexnut bolt on the opening side. The depth is 36mm.</p> </td> </tr> </table> <p>Recommendation:</p> <p>For Micro EM-locks (300 LBS), maximum thickness of door is 1.73 in.</p> <p>For Mini EM-locks (600 LBS), maximum thickness of door is 1.97 in.</p> <p>For Midi EM-locks (800 LBS), maximum thickness of door is 1.89 in.</p> <p>For Maxi EM-locks (1200 LBS), maximum thickness of door is 1.81 in.</p> | <p>Hollow Metal Door</p> <p>Outdoor</p> <p>12.7mm 8mm</p> <p>Drill an 8mm hole through door, on closing side enlarge to 12.7mm by a sexnut bolt on the opening side.</p> | <p>Reinforced Door</p> <p>Outdoor</p> <p>6.8mm for M8-1.25 thread</p> <p>Drill a 6.8mm hole and tap on closing side a M8x1.25 thread.</p>                                                | <p>Solid Door</p> <p>Outdoor</p> <p>12.7mm 8mm 36mm</p> <p>Drill a 8mm hole through door on closing side enlarge to 12.7mm, by a sexnut bolt on the opening side. The depth is 36mm.</p> | <p>⑧</p> <p>Allen wrench</p> <p>Use the Allen wrench and fixing bolts to tighten the electromagnetic lock to mounting plate.</p> <p>⑨</p> <p>Power</p> <p>Outdoor</p> <p>Connect the power and test the holding force. Add washers if there is gap between the maglock and the armature plate and then tap the screw holes.</p> |
| <p>Hollow Metal Door</p> <p>Outdoor</p> <p>12.7mm 8mm</p> <p>Drill an 8mm hole through door, on closing side enlarge to 12.7mm by a sexnut bolt on the opening side.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Reinforced Door</p> <p>Outdoor</p> <p>6.8mm for M8-1.25 thread</p> <p>Drill a 6.8mm hole and tap on closing side a M8x1.25 thread.</p>                                | <p>Solid Door</p> <p>Outdoor</p> <p>12.7mm 8mm 36mm</p> <p>Drill a 8mm hole through door on closing side enlarge to 12.7mm, by a sexnut bolt on the opening side. The depth is 36mm.</p> |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                 |

1. Pass the power cable through the mounting plate and the hole of the maglock.
2. Place the mounting plate above the maglock. Leave a length of 1 cm from either end of the maglock.
3. Slide the mounting plate into the maglocks. Fit the maglock from the bottom to the mounting plate.
4. Use the Allen wrench and fixing screws to tighten the mounting plate and maglock.

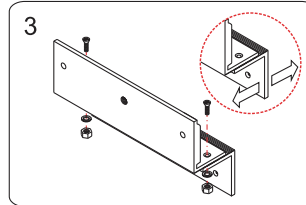
## LZ bracket for Inswing doors



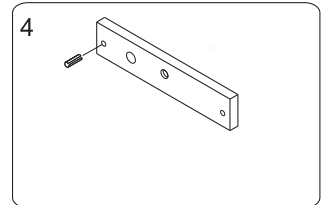
Find a mounting position on the door frame for the L bracket. Make sure that the door is still closeable.



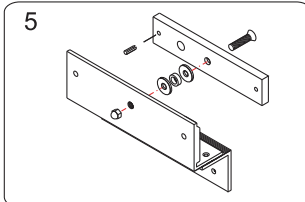
Use the fixing bolt to tighten the electromagnetic lock on L bracket.



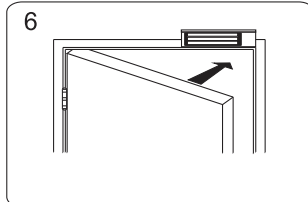
Assemble the Z bracket, and make sure that the position of the Z bracket is adjustable.



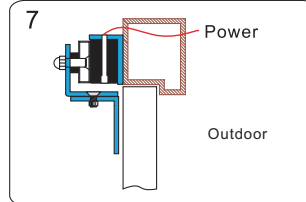
Insert the guide pins into the armature plate.



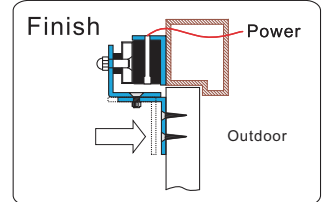
Fasten the armature plate to the Z bracket (Must add rubber washer)



Close the door and connect the power



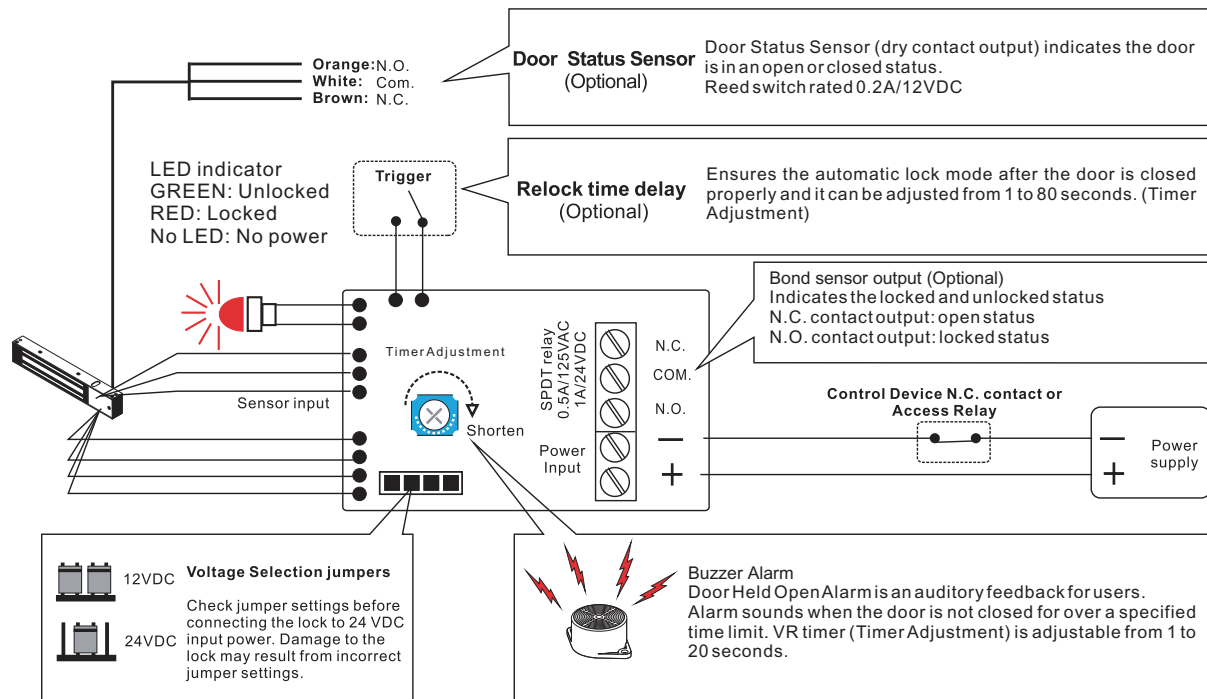
After the maglock attracts the armature plate, adjust the Z bracket to fit the door.



Fasten the Z bracket to the door.

## Connecting Diagram

EM-NH350M and EM-NH2350M include a bond sensor and LED indicator.



## 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                                                                                                 |
| 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 and armature plate<br>Make sure the contact surfaces of the electromagnet and armature plate are clean and free from dust and foreign material |
|                                  | Low voltage or incorrect voltage setting                         | Check the electromagnet lock is set for the correct voltage.<br>Check the 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 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                                                                                                                                                                               |