N10010ST Series

Electromagnetic Lock Installation Instruction (Waterproof Series)

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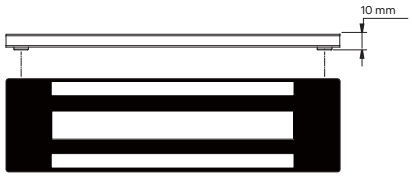
A Technical Specification

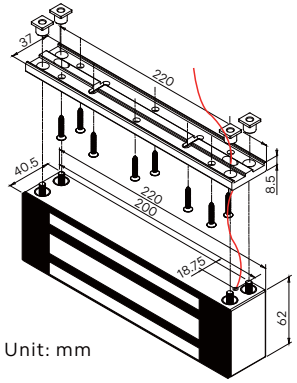
Specification	
Operating Voltage	Single Voltage: 12 or 24 VDC
	Dual Voltage: 12/24 VDC
Current Draw	Single Voltage: 500mA/12 VDC or 250mA/24VDC
	Dual Voltage:500mA/12VDC 250mA/24VDC
Operating Temperature	-10~55°C(14~131°F)
Bond Sensor Output	0.1A/20VDC(Resistive load)
Holding Force	1200 lbs (approx. 545 kg)
Lock Surface Temperature	≦ Current temperature ±20°C
Lifetime Test	Over 500,000 times
Humidity	0 to 85% Non-condensing
Finish	Magnet Surface: Galvanized Housing: Brushed stainless steel (US32D)

B New Mounting Plate

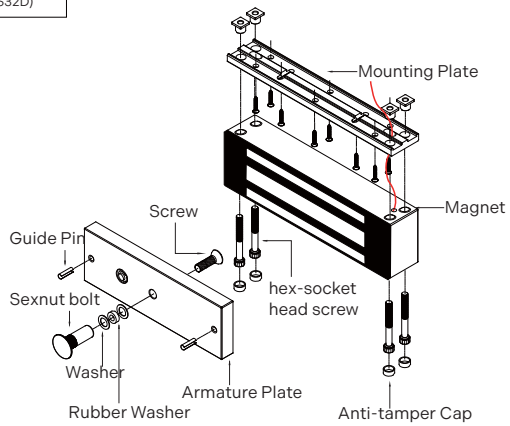


Thickness of 10 mm with enhanced sturdiness to secure the magnetic lock

C Dimensions & Accessories

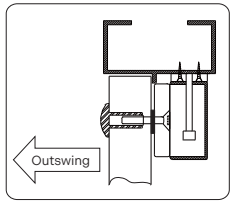


Unit: mm

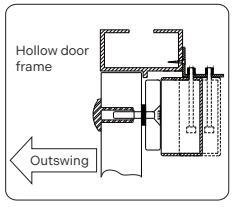


D Optional Brackets

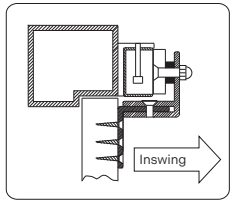
Bracket installation is based on the direction of door action and the type of door frame, e.g. narrow frame doors, frameless glass doors, inswing doors, etc.



Regular Installation

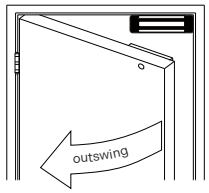


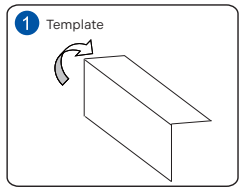
L-N10010ST bracket for outswing doors and narrow door frames



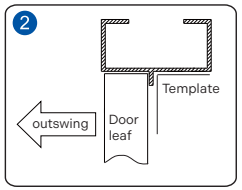
LZ-N10010ST bracket for inswing doors

E Regular Installation

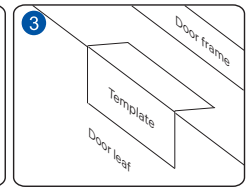




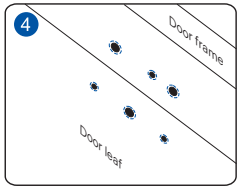
Fold the template 90° along the dotted line.



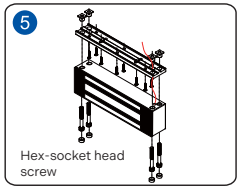
Close the door. Stick the template on upper free-moving corner of the door leaf, as close to the corner of the door frame as possible.



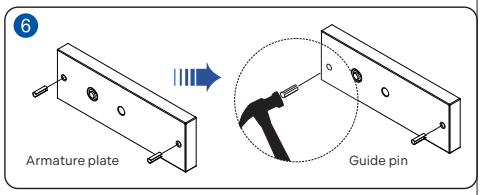
Mark the positions of the holes as shown on the template for securing the magnetic lock and armature plate.



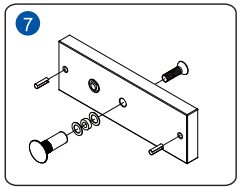
Drill the holes into the marks made previously.



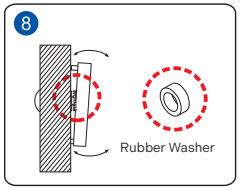
Fasten the mounting plate with screws. Then fasten the magnetic lock with hex-socket head crews and blind nuts.



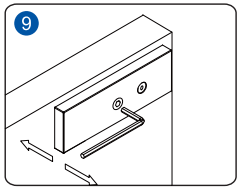
Install the armature plate as shown in the diagram. (Different dimensions of holes on different door constructions.) Hammer the guide pins into the holes in the armature plate (see diagram 11).



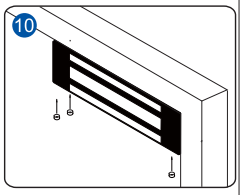
Add rubber washers



The rubber washer is used to adjust the angle of the rmature plate when it is attracted by the magnetic lock to achieve the maximum holding force.



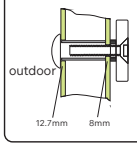
Close the door and test the holding force. Adjust the gap between the armature plate and the magnetic lock by adding or removing the washers or by tightening the armature plate.



Insert the caps into the screw holes in the magnetic lock.

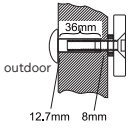
11 Drilling Instruction

Hollow Metal Door



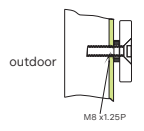
Drill a 8 mm hole. Enlarge the hole to 12.7 mm by a sexnut bolt from the outside.

Solid Wooden Door



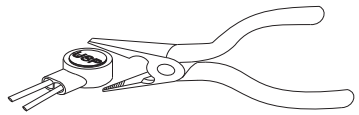
Drill a 8 mm hole. Enlarge the hole to 12.7 mm and 36 mm deep by a sexnut bolt from the outside.

Reinforced Door



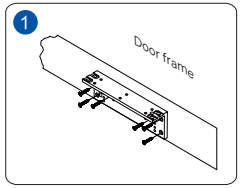
Drill a 6.8 mm hole and tap a M8x1.25P thread.

F Butt Splice (IDC) Connector

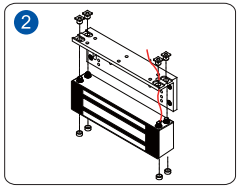


Using crimper or pliers and pressing the header of connector down to even position.

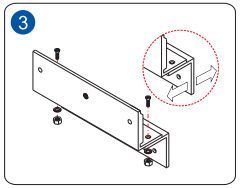
G LZ bracket for inswing doors



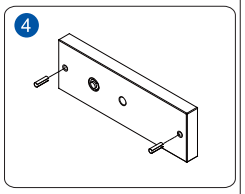
Install the L bracket to the mounting position on the door frame. Make sure the door can be freely opened.



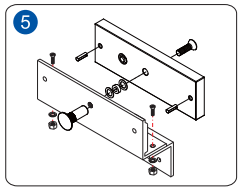
Fasten the magnetic lock to the L bracket with hex-socket head screws.



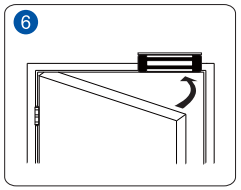
Assemble the Z bracket. Note that the bracket is movable.



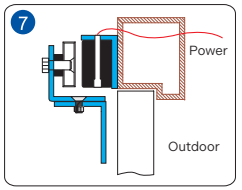
Insert the guide pins into the armature plate.



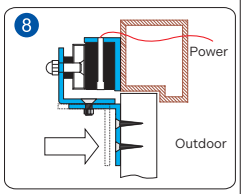
Fasten the armature plate to the bracket. The rubber washer must be placed between the armature plate and the bracket.



Close the door and connect to the power.

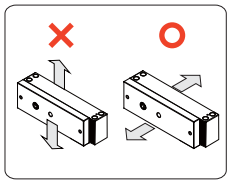


After the armature plate and the magnetic lock stick to each other, adjust the Z bracket to fit the door frame.

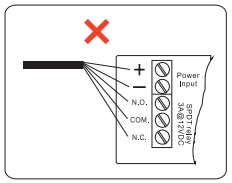


Adjust and fasten the Z bracket. Close the door and test the holding force. Adjust the gap between the armature plate and the magnetic lock by adding or removing the washers or by tightening the armature plate.

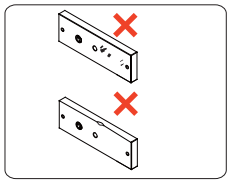
H Note:



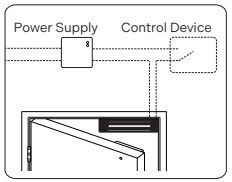
The magnetic lock must face-to-face align with the armature plate or the holding force will decrease by 80%.



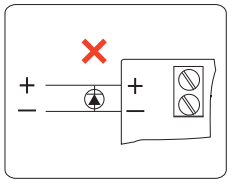
Do not apply power wires and signal wires in the same cable or conduit.



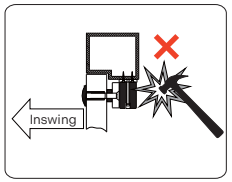
Make sure the faces of the magnetic lock and the armature plate are clean, intact and no rust.



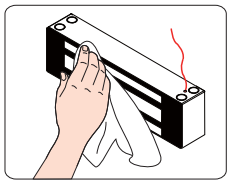
The magnetic lock is fail-safe. It requires a UPS to supply power to keep the door locked during power failure.



Remove any diode and varistor to prevent the door from delayed opening.

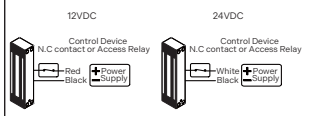
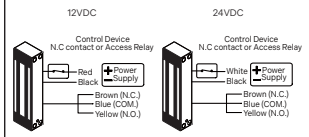
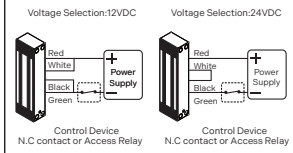
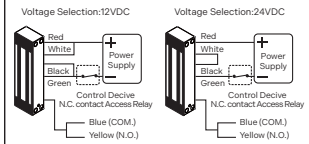
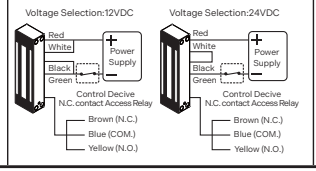


The magnetic lock and wires must not be exposed. Install LZ bracket for inswing doors.



Regularly wipe the surface of the magnetic lock with anti-rust oil.

I Connecting Diagram

Model	Wire Leads (Power input is polarity free)	Power Input	Bond sensor output	Digram	Bond sensor output
N10010ST-12 N10010ST-24 N10010ST-12-3M N10010ST-24-3M	2 Wire Leads	12VDC or 24VDC	–		
N10010STM-12 N10010STM-24 N10010STM-12-3M N10010STM-24-3M	5 Wire Leads		✓		Indicates the locked (N.O. contact) or unlocked (N.C. contact)status Access Control Rating : 0.1A/20VDC(Resistive load)
N10010ST N10010ST-3M	4 Wire Leads		–		
N10010STR N10010STR-3M	6 Wire Leads		✓		Indicates the locked (N.O. contact) or unlocked (N.C. contact)status Access Control Rating : 0.1A/20VDC(Resistive load)
N10010STM N10010STM-3M	7 Wire Leads		✓		Indicates the locked (N.O. contact) or unlocked (N.C. contact)status Access Control Rating : 0.1A/20VDC(Resistive load)

J Trouble Shooting

Problem	Possible Cause	Solution
Door does not lock	No power	1. Make sure the wires are properly connected. 2. Make sure the power supply unit works well. 3. Make sure the relay is connected to the N.C. contact.
Low holding force	Poor contact between electromagnet and armature plate	1. See if the armature plate is deformed. 2. Make sure to insert the rubber washer between the armature plate and the bracket. 3. See if the surfaces of the armature plate and the magnetic lock are clean.
	Low voltage or incorrect voltage setting	1. Check if the voltage selection is correct. 2. Check the power voltage at the terminals.
Sensor output is not functioning	A secondary diode was installed across the electromagnet lock	Remove any diode installed across the magnetic lock.
	Misalignment between the reed switch and electromagnet lock	Make sure the armature plate and the magnetic lock are aligned face-to-face.

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