dormakaba

INSTALLATION

RCI 8380

GATEMAG ® ELECTROMAGNETIC LOCKS

PLEASE DELIVER ALL INSTALLATION INSTRUCTIONS TO THE END-USER UPON COMPLETION OF THE INSTALLATION.

Pre-Installation Instructions

1. This product must be installed according to all applicable building and life safety codes.
2. Due to the variety of mounting configurations available with this product, a survey and assessment of the physical area in which the product will be installed must be performed.
3. The door frame must be inspected and deemed structurally sound prior to installation of the electromagnetic lock. The structural integrity of the mounting surfaces must be strong enough to meet or exceed the holding force of the product.
4. The product must be protected from potential damage due to intruders or tampering.
5. The product should be installed in a location that will not hinder or create a potential safety hazard to authorized personnel accessing the protected area.
6. Because electromagnetic locks are used in a variety of applications and different door frame configurations, an experienced installer with knowledge of this product must make a determination of the optimal mounting method for this specific application.
7. The components, hardware, installation instructions and mounting template included with this product are intended for use on swinging and sliding gates.
8. Do not use as a doorstop. This will void warranty.
9. Separate accessories not included with this product may be used in the following applications:
   - Inswinging doors and gates
   - Sliding gates and doors

   Refer to the Template for further information. Accessories may impact holding force.
10. Installation of this product should be done by an experienced installer with knowledge of this product.

NOTE: It is highly recommended that thread locking compound be applied to all screws during installation to reduce chance of screws loosening over extended time.

Instructions

1. Please read mounting instructions and use the template provided for installing the electromagnetic lock.

NOTE: During installation of the armature plate to the gate, it is essential that the armature plate remains movable. The armature plate must be allowed to pivot on the center-mounting bolt to allow proper alignment with the magnet surface. If the plate is not aligned with the magnet surface, the lock may lose holding force or not lock at all.

The head of the armature mounting bolt ships with a rubber washer affixed to it. This washer should project slightly beyond the surface of the armature plate. This is to allow the washer to expand when power is removed and break the air vacuum between the plate and the magnet surface. If this washer is removed or trimmed the lock will appear to have some holding force even when power is removed.

For added safety, thread locking compound has been provided for the armature plate bolt and the four electromagnetic lock mounting screws.

WARNING: Improper installation, maintenance, inspection or usage of the product or any related accessories or parts may cause the electromagnetic lock, armature plate and associated hardware to disengage and fall, causing serious bodily injury and property damage. dormakaba Canada Inc. and/or dormakaba USA Inc. will not be liable to the installer, purchaser, end user or anyone else for damage or injury to person or property due to improper installation, care, storage, handling, maintenance, inspection, abuse, misuse or act of God or nature involving this product or any related accessories or parts.

2. Connecting wire should be of sufficient gauge to prevent line loss.
3. The RCI brand 8380 electromagnetic lock requires a filtered, regulated DC power source for optimal performance.

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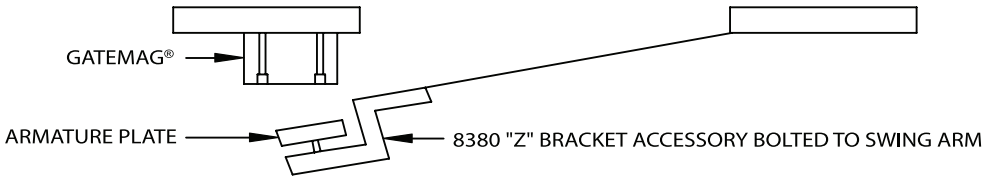
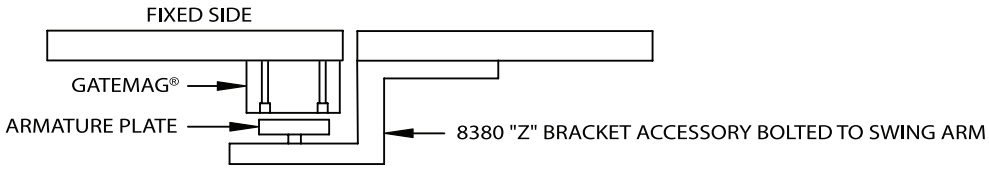
Mounting Techniques

Due to the wide variety of gates manufactured, each installation is considered special and custom mounting brackets may be required.
Mounting accessories may impact holding force.
GateMag® will be mounted on the fixed post and the armature plate on the swinging or sliding member of the gate.
Align armature plate to make contact with the magnet face.
For high security or a tall gate applications, dormakaba recommends 2 point locking.
NOTE: Do not use as a doorstop. This will void warranty.

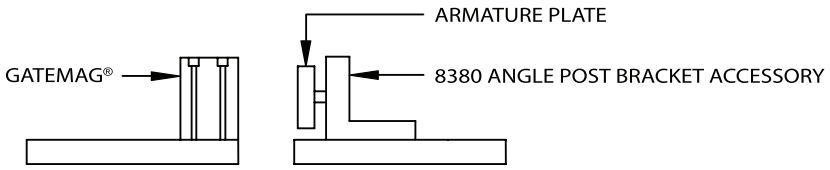
SINGLE SWING GATE



DOUBLE SWING GATE



SLIDING GATE



Mounting Instructions

Step 1. Read pre-installation instructions on page 1.

Step 2. Cut out required GateMag® template along dotted line.
Place template against flat portion of fixed post or customized mounting bracket
Drill 4 holes as indicted on template. Hole locations are critical. Do not let your marking or drilling wander.
Carefully apply thread locking compound to exposed threads.
Mount GateMag® to fixed post or mounting bracket.

Step 3. Position bolt with rubber head through the armature plate.
Add 3 washers (Steel - Rubber - Steel) onto bolt.
Carefully apply thread locking compound onto exposed thread.
While aligning pins, secure armature plate to bracket by threading into M8 collar.
NOTE: Do not overtighten armature plate. It must remain movable to allow surface alignment with the electromagnetic lock.

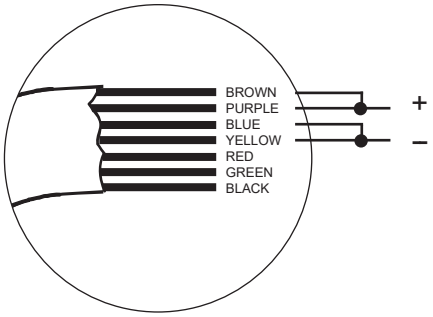
Step 4. With gate in closed position, align armature plate to GateMag® face.
Secure mounting bracket to swinging portion of gate as required.

Step 5. Wire carefully per instructions on page 3.

When properly installed, the ends of the armature plate allow a slight movement, but the plate will feel secure when grasped at the bolt.
There should be no movement to the mounting bracket or housing of the electromagnetic lock.

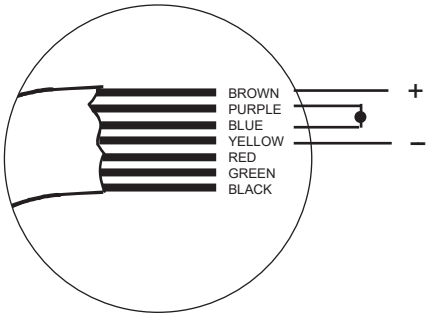
Wiring Instructions

WARNING – Misconnection of the wires will cause the MOV inside the electromagnetic lock to fail.
This will NOT be covered under warranty.



12 VDC INPUT

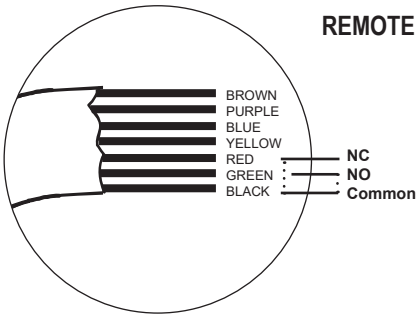
Twist brown and purple wires together and connect to the positive side of the power source.
Twist blue and yellow wires together and connect to the negative side of the power source.



24 VDC INPUT

Twist purple and blue wires together; then connect brown wire to the positive side of the power source and yellow wire to the negative side of the power source.

REMOTE LOCK STATUS

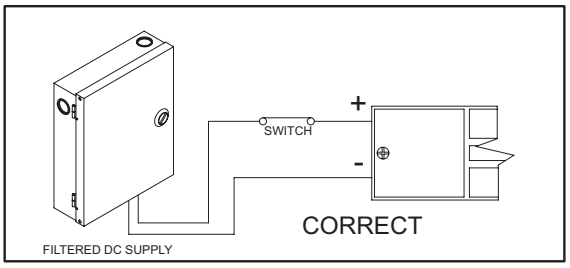


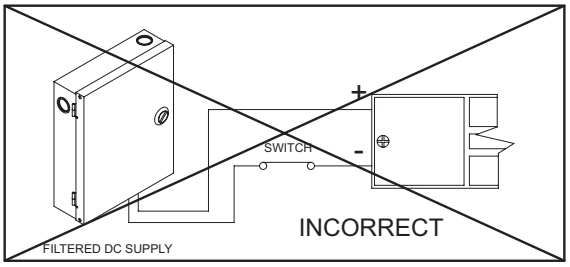
Magnet Locked – When the magnet is locked, the common contact (black) and the normally open contact (green or white) are closed. The normally closed contact (red) would be open.

Magnet Unlocked – When the magnet is unlocked, the common contact (black) and the normally closed contact (red) are closed.

Reed switch is operational when the magnetic lock is powered and the door is in the closed position.

Reed switch contacts are rated 24VDC @ 0.2amps maximum.





POWER CONNECTIONS

To Ensure Instant Release All switching devices must be wired in between the DC power source and the positive terminal of the lock as above.

Switching the negative power supply line will not allow the lock to release immediately. dormakaba electromagnetic locks contain MOV's for surge suppression and do not require any additional suppression to be added during installation. The installation of diodes across the lock input terminals will cause a delay in release.

NOTE: UL and ULC Listed electromagnetic locking devices must be used with UL or ULC approved power supplies. dormakaba offers a full line of power supplies. The RCI brand 8380 electromagnetic locking devices are cULus Listed and California State Fire Marshal Listed.

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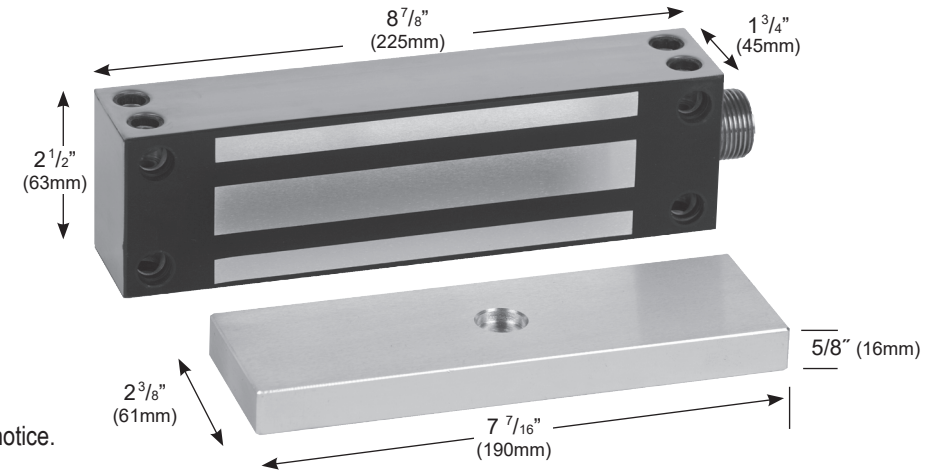
Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
Door will not lock (no magnetic attraction)	Absence of DC voltage at magnet terminals.	Check power supply and wiring.
Reduced holding force	Inadequate contact between armature and face of magnet.	Ensure mating surfaces are clean and in proper alignment. Make sure to follow the armature plate mounting instructions on the template and Page 1 of this install.
Delay in lock release	Circuit not broken (open) between power supply and magnetic lock. Secondary diode installed	Ensure that switching devices are interrupting the DC power and not the AC power supply voltage. Ensure rubber washer on armature plate mounting bolt has not been removed or damaged. Check that switching device interrupts the positive wire and not the negative wire. (See Fig. 2) Removed any diodes or other supression devices that may be installed.
RLS status incorrect	Misalignment of armature plate.	Check to see that alignment agrees with template. Reposition armature plate. Contact manufacturer.



Power Input Requirements

VOLTAGE	CURRENT
12VDC	0.48A
24VDC	0.24A

NOTE: Specifications are subject to change without notice.

NOTE: All RCI brand electromagnetic locks must be powered with filtered and regulated DC power supplies such as the DKPS Series UL Listed power supply.
dormakaba offers a full line of power supplies and switching devices that are suitable for use with the 8300 Series locks.

Inspection and Maintenance

This product and all related accessories or parts must be inspected and maintained on a **quarterly basis.** Contacting surfaces of the electromagnetic lock and armature plate must be kept free of contaminating materials. Surfaces must be cleaned periodically with a non-abrasive cleaner.

All mounting fasteners must be inspected on a **quarterly basis.** When properly installed, the ends of the armature plate allow a slight movement but the plate will feel secure when grasped at the bolt. There should be no movement to the mounting bracket or housing of the electromagnetic lock.

For added safety, thread locking compound has been provided for the armature plate bolt and the four captive electromagnetic lock mounting screws.

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