

Electromagnetic Gate Lock
with Door Cord

Installation Manual



E-942FC-1K2AR shown



Model	Voltage	Current Draw	Holding Force
E-942FC-600AR	12/24 VDC	500mA@12VDC, 250mA@24VDC	600-lb (272kg)
E-942FC-1K2AR	12/24 VDC	500mA@12VDC, 250mA@24VDC	1,200-lb (544kg)

The SECO-LARM Electromagnetic Gate Lock with Door Cord combines a strong and durable gate lock with an armored door cord for ease of installation and greater security. With variants of both 1,200-lb (544kg) and 600-lb (272kg) holding force, it is suitable for almost any gate installation and can be installed horizontally as well as vertically.

- 12/24 VDC
- For use with nearly all types of outdoor sliding and swinging electric gates
- Low current draw of 500mA@12VDC, 250mA@24VDC
- Can be mounted horizontally or vertically
- 18" (457mm) Armored door cord with housing and security screws (security wrench included)
- IP65 Weatherproof
- Limited Lifetime Warranty

Parts List

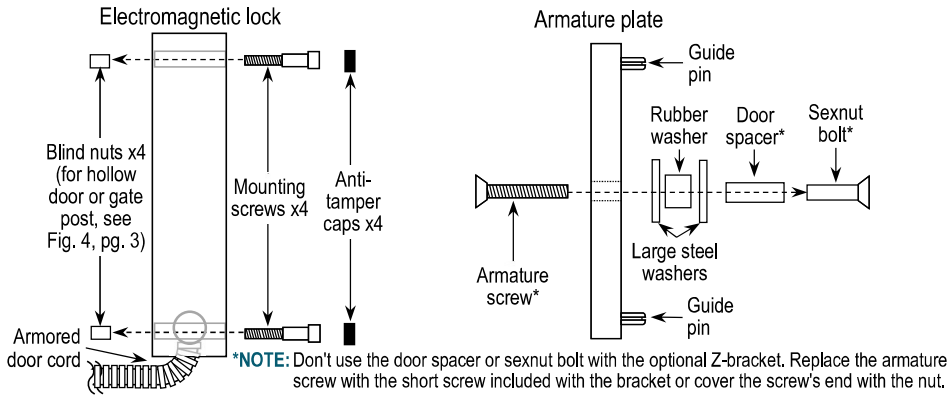
1x Maglock	1x Armature plate	1x Armature screw	3x Large steel washers
2x Rubber washers	1x Sexnut bolt	4x Mounting screws*	4x Small washers*
4x Tamper caps*	2x Guide pins	1x Hex key / security wrench	1x Door spacer (tube)
1x Manual	4x Blind nuts*	1x Blind nut assembly (M6x30 screw, hex tool, washer)	

*E-942FC-600AR includes 2x

Specifications

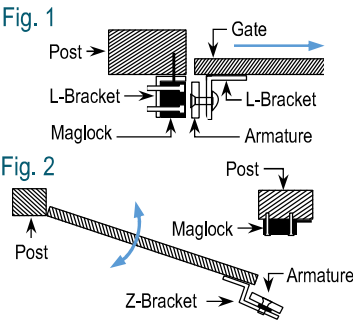
Model	E-942FC-600AR	E-942FC-1K2AR
Operating voltage	12/24 VDC	
Holding force	600-lb (272kg)	1,200-lb (544kg)
Current draw	12VDC 500mA	24VDC 250mA
IP Rating	IP65	
Connections	18" (457mm) Armored door cord with housing	
Operating temperature	14°~131° F (-10°~55° C)	
Dimensions	Maglock	8"x1 ¹¹ / ₁₆ "x1 ⁹ / ₁₆ " (203x43x40 mm)
	Armature	7 ¹ / ₄ "x1 ⁵ / ₈ "x ⁹ / ₁₆ " (185x41x14 mm)
Weight	6-lb 2-oz (2.76kg)	10-lb 5.6-oz (4.7kg)

Installation Overview



Installation

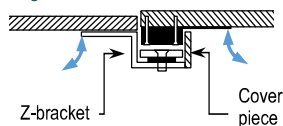
- Determine the type of gate.
 - Sliding gate** (Fig. 1) – The gate slides away from a fixed gate post. For this installation, use two L-brackets to mount the electromagnet to the post and the armature to the gate perpendicular to each other.
 - Single-swing gate** (Fig. 2) – The gate swings on one end and closes on a fixed gate post. In this case, usually the electromagnet is mounted to the gate post, and the armature is connected to the free end of the gate with a Z-bracket.



Installation (Continued)

- c. **Double-swing gate** (Fig. 3) – Two gates swing in the same direction when activated. The electromagnet is fixed to one gate's free end, and the armature is fixed to the other's free end via a Z-bracket.

Fig. 3



IMPORTANT

- A cover piece should be added to the Z-bracket as shown in Fig. 3 to help prevent unauthorized users from prying the armature and the electromagnet apart.
- It is important to coordinate the gates' swing to prevent the electromagnet from catching on the cover piece. The gate with the armature should open before the gate with the electromagnet.

2. Mount the electromagnet. Usually, the electromagnet's position will determine the location of the armature plate. Make sure there is space to run the cable.

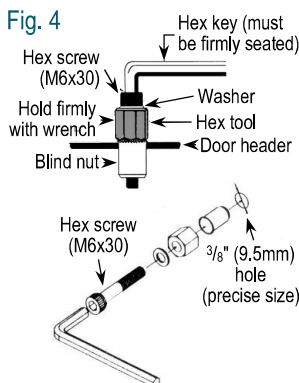
NOTE: For hollow door headers or gate posts, use blind nuts (see Fig. 4)

- Tape the template to the appropriate location.
- Drill four $\frac{3}{8}$ " (9.5mm) holes, one per hex screw.

IMPORTANT: The holes must be precisely $\frac{3}{8}$ " (9.5mm).

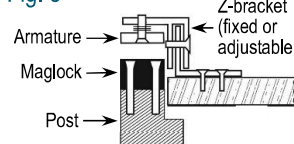
- Insert a blind nut in one of the $\frac{3}{8}$ " (9.5mm) holes.
- Put the washer on the M6x30 hex screw, put the hex tool on the screw, and turn the screw by hand into the blind nut.
- Use a wrench or vice-grip to tightly hold the hex tool while using the included hex key to slowly tighten the hex screw until it does not turn any further. This compresses the blind nut so that it remains permanently fixed in the hole. Remove the hex screw and hex tool.
- Repeat steps c through e for the other blind nuts.
- Push hex screws into each of the screw holes in the electromagnet. Use the hex wrench to tighten the screws into the blind nuts.

Fig. 4



3. Mount the armature (see Fig. 5). The correct position depends on the electromagnet's mounted position. Use the appropriate L-bracket or Z-bracket to position the armature so it lays against the electromagnet when activated. However, leave a slight gap so the armature does not slam against the electromagnet when the gate is closed.

Fig. 5



- Put one rubber washer between two steel washers and place them over the armature screw between the armature and the bracket. This allows the armature to pivot slightly around the armature screw in order to compensate for gate misalignment.
 - Ensure the guide pins are inserted into guide holes to prevent the armature from spinning.
 - Tighten the sexnut enough so the armature can withstand the force of someone attempting to pry the gate open while the electromagnet is engaged.
 - Do not tighten the armature against the bracket. The armature must be able to pivot around the armature screw.
4. Cover the installation. Use a steel box to make the installation more attractive as well as prevent unauthorized users from prying the armature and electromagnet apart when engaged.
5. Run the wires. The goal is to keep as little of the wires exposed as possible. Use the armored cable between the electromagnet and the out-of-sight location to protect them from being cut.
6. Open the terminal housing and connect the wires as shown in Wiring Diagram on pg. 4 and test the unit.
7. After all is final, insert the tamper caps into the mounting screw access holes of the electromagnet. *This should be the last step*, since, once the tamper caps are in place, they are difficult to remove.

Wiring Diagram



Troubleshooting

Gate does not lock	• Ensure the wires are secure. • Ensure that the power supply is connected and operating.
Gate locks but can be easily forced open	• Ensure the electromagnet and armature plate are properly aligned. • Ensure the contact surfaces of the electromagnet and armature plate are clean and free from rust.
Delay in gate releasing	• The electromagnet includes a built-in metal oxide varistor to prevent interference, so do not install a secondary diode.

Regular Maintenance

- Clean the contact surfaces of the electromagnet or armature plate with a soft cloth and non-abrasive, non-corrosive cleaner.
- Apply a light coat of silicon lubricant to both contact surfaces and wipe away the excess to prevent rust.
- Check that the armature plate is securely attached to the door yet can pivot slightly around the armature screw and that the electromagnet is securely attached to the gate or post.

Accessories

Z-Brackets	L-Brackets	Weldable Brackets
		
E-942F-600/Z (for 600-lb) E-942F-1300/ZQ (for 1,200-lb)	E-942F-600/L (for 600-lb) E-942F-1300/L (for 1,200-lb)	E-942F-600G/WQ (for 600-lb) E-942F-1K2G/WQ (for 1,200-lb)

IMPORTANT: Users and installers of this product are responsible for ensuring that the installation and configuration of this product complies with all national, state, and local laws and codes. SECO-LARM will not be held responsible for the use of this product in violation of any current laws or codes.

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