

SECO-LARM®

Electromagnetic Gate Lock with Weldable Bracket



Installation Manual



Model	Mounting Type	Holding Force	Certifications (Maglock Only)
E-942FC-600SQ	Face	600-lb (272kg)	cUL, UL, CE, RoHS (Maglock E-942FC-600)
E-946FC-1K2SQ	Side	1,200-lb (544kg)	cUL, UL, CE, RoHS (Maglock E-946FC-1K2Q)
E-942FC-1K3SQ	Face	1,200-lb (544kg)	cUL, UL, CE, RoHS (Maglock E-942FC-1300)

The SECO-LARM Electromagnetic Gate Lock with Weldable Bracket combines a strong and durable gate lock with a weldable bracket 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 welded or bolted directly to gate and mounted horizontally or vertically
- Includes a magnetic lock with brackets for armature and magnet, mounting hardware included
- Zinc-plated brackets for corrosion resistance
- Maintenance-free, factory-sealed design, IP67 Waterproof
- Water- and vandal-resistant stainless-steel with black finish to match most gates
- Fail-safe operation (releases if power is removed)
- Four knockouts on junction box

Parts List

1x Maglock	1x Armature plate	1x Maglock bracket	1x Armature bracket
1x Armature screw	2x Large steel washers	1x Rubber washer	2x Guide pins
1x Power supply	4x Junction box screws	4x Mounting screws*	4x Anti-tamper caps*
1x Security screw	1x Hex wrench†	2x Wire connectors	1x AC Pigtail connector
1x DC Pigtail connector‡	1x Manual		

*E-942FC-600SQ has only 2x mounting screws and 2x anti-tamper caps

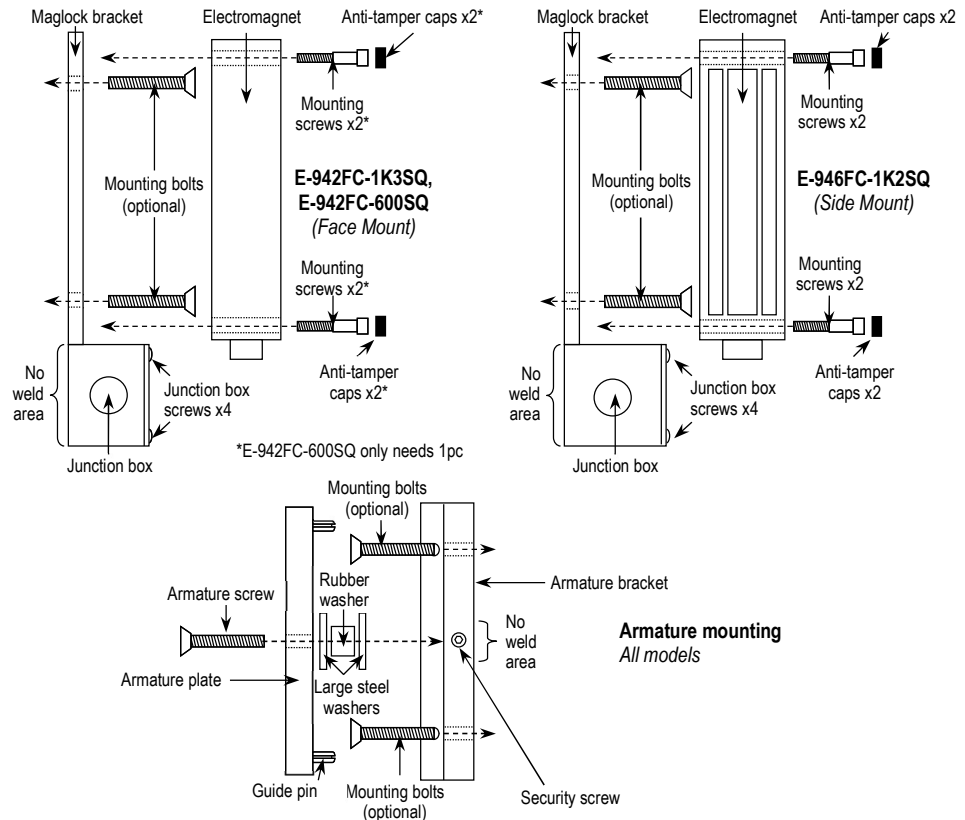
†For junction box

‡Model# EVA-M5521-3Q

Specifications

Model	E-942FC-600SQ	E-946FC-1K2SQ	E-942FC-1K3SQ
Operating voltage	12/24 VDC		
Holding force	600-lb (272kg)	1,200-lb (544kg)	
Current draw	500mA@12VDC, 250mA@24VDC		
IP Rating	IP67		
Operating temperature	14°~131° F (-10°~55° C)		
Weight	Maglock/Armature	6.4-lb (2.9kg)	11-lb (5kg)
	Brackets	3.95-lb (1.8kg)	5-lb (2.3kg)
	Total	10.4-lb (4.7kg)	16.1-lb (7.3kg)

Mounting Diagrams



Wiring Diagram



Installation

- 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.
 - Tack weld the bracket into place (Tack weld only).
 - Remove the electromagnetic lock from the bracket.

WARNING: Failure to remove the electromagnetic lock will result in severe damage to the lock.
 - Weld 3 or 4 beads about 1" apart. Make sure not to weld the junction box. (See *Mounting Diagrams* on pg. 2 for *No Weld* areas).
 - Reinstall the electromagnetic lock to the bracket.
- Mount the armature.
 - Determine the armature bracket location based on the electromagnet location and tack weld into place (Tack weld only).
 - Remove the armature plate from the bracket.

WARNING: Failure to remove the armature plate will damage the armature and rubber washer.
 - Weld the armature bracket with 3 or 4 beads about 1" apart. Make sure not to weld near the set screw hole. (See *Mounting Diagrams* on pg. 2 for *No Weld* areas).
 - Reinstall the armature plate to the mounting bracket.
 - Place 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 to compensate for gate misalignment.
 - Make sure the guide pins are inserted into guide holes to prevent the armature from spinning.
 - Do not overly tighten the armature against the bracket. The armature must be able to pivot around the armature screw.
- Run the wires. The goal is to keep as little of the wires exposed as possible.
 - Run the wires into an out-of-sight location as close as possible to the electromagnet.
 - Use standard armored cable to prevent the wires from being cut between the electromagnet and the out-of-sight location.
- Connect the wires.

NOTE: The unit is prewired for 12V operation. See *Wiring Diagram* above for more information.

 - For 12V operation – connect the red and white wires to +12VDC, and the black and green to ground.
 - For 24V operation – connect the red wire to +24VDC, the green wire to ground, and then tie the white and black wires together and insulate.

WARNING: Damage caused by improper connection will void the warranty.
- Test the unit.
- 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.

Troubleshooting

Gate does not lock	<ul style="list-style-type: none">• Ensure the wires are secure.• Ensure that the power supply is connected and operating.• Check that the unit is wired correctly.
Gate locks but can be easily forced open	<ul style="list-style-type: none">• 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.• Check the power leads with a meter and make sure the voltage is correct.
Delay in gate releasing	<ul style="list-style-type: none">• 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.
- Check that the electromagnet is securely attached to the bracket.

UL Certification: The E-946FC-1K2Q, E-942FC-1300, and E-942FC-600 electromagnetic locks conform to UL/10B "Fire Tests of Door Assemblies" and UL/10C "Positive Pressure Fire Tests of Door Assemblies" for swinging door assemblies. They are also classified in accordance with the Uniform Building Code standard 7-2.

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.

California Proposition 65 Warning: These products may contain chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

LIMITED LIFETIME WARRANTY: This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for the lifetime of the product. SECO-LARM's obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM. This Warranty is void if damage is caused by or attributed to acts of God, physical or electrical misuse or abuse, neglect, repair or alteration, improper or abnormal usage, or faulty installation, or if for any other reason SECO-LARM determines that such equipment is not operating properly as a result of causes other than defects in material and workmanship. The sole obligation of SECO-LARM and the purchaser's exclusive remedy, shall be limited to the replacement or repair only, at SECO-LARM's option. In no event shall SECO-LARM be liable for any special, collateral, incidental, or consequential personal or property damage of any kind to the purchaser or anyone else. For all other countries the warranty is 1 (one) year.

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