SECO-LARM®

Electromagnetic Gate Lock with Weldable Bracket

Manual

E-942FC-1K3SQ Shown

Model	Mounting type	Holding force
E-942FC-1K3SQ	Face	1,200-lb (544kg)
E-946FC-1K2SQ	Side	1,200-lb (544kg)
E-942FC-600SQ	Face	600-lb (272kg)

- For most types of outdoor sliding and swinging electric gates
- Includes a magnetic lock with brackets for armature and magnet
- Can be welded or bolted directly to gate
- Brackets are zinc-plated for corrosion resistance
- Black finish to match most gates
- Water- and vandal-resistant attractive stainless-steel finish
- Maintenance-free, factory-sealed design
- Fail-safe operation (releases if power is removed)
- Mount vertically or horizontally
- Four knockouts on junction box
- Adapter and mounting hardware included

Specifications:

E-942FC-1K3SQ, E-946FC-1K2SQ		
Operating voltage		12/24 VDC
Holding force		1,200-lb (544kg)
Current draw	12V	500mA
	24V	250mA
Weight (approx.)		
Total		16.1-lb (7.3kg)
Maglock & armature		11-lb (5kg)
Bracket		5-lb (2.3kg)
Certifications		cUL, UL, CE, RoHS (magnetic lock only)

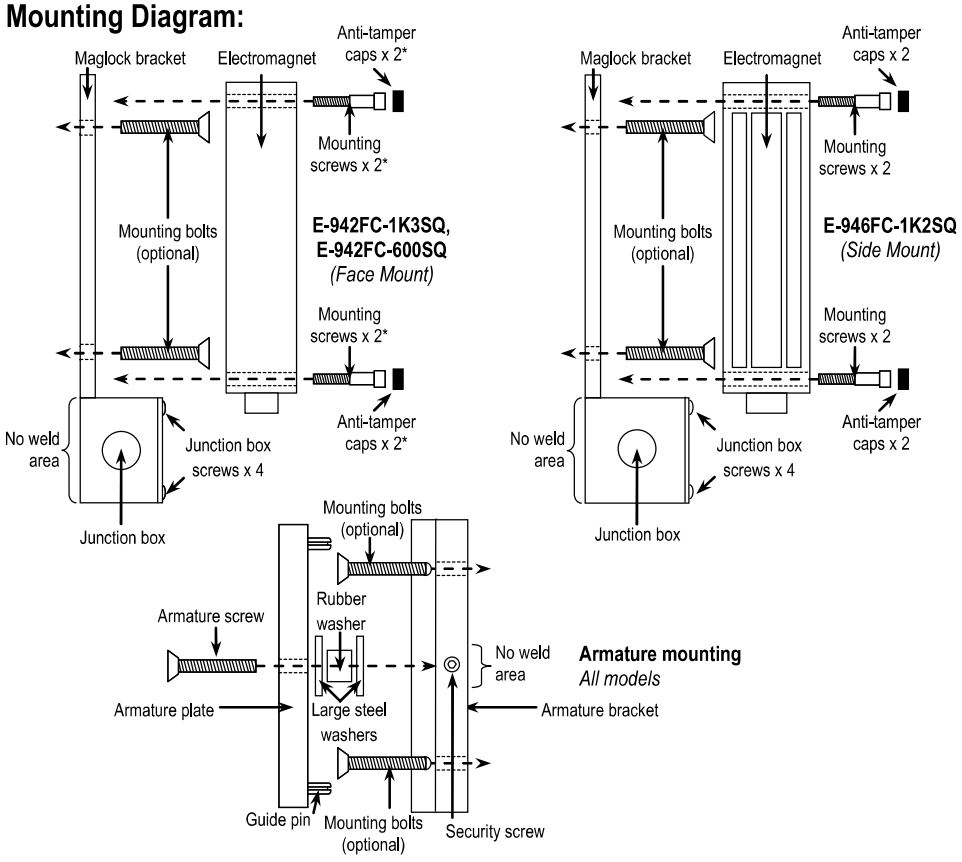
E-942FC-600SQ		
Operating voltage		12/24 VDC
Holding force		600-lb (272kg)
Current draw	12V	500mA
	24V	250mA
Weight (approx.)		
Total		10.4-lb (4.7kg)
Maglock & armature		6.4-lb (2.9kg)
Bracket		3.95-lb (1.8kg)
Certifications		cUL, UL, CE, RoHS (magnetic lock only)

Parts List:

1x Maglock bracket
1x Armature bracket
1x Electromagnet
1x Armature plate
1x Armature screw
2x Large steel washers
1x Rubber washer
4x Junction box screws
4x Mounting screws*
4x Anti-tamper caps*
2x Guide pins
1x Allen wrench for junction box
1x Security screw
1x AC Pigtail connector
1x DC Pigtail connector (EVA-M5521-3Q)
2x Wire connectors
1x Power supply

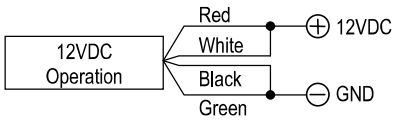
*2x Mounting screws/Anti-tamper caps (E-942FC-600SQ only)

Mounting Diagram:

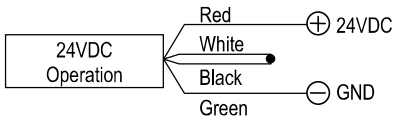


*E-942FC-600SQ requires only 1pc

Wiring Diagram:



(Default setting)



IMPORTANT
Damage caused by improper connection will void warranty.

Installation:

1. Mount the electromagnet. In most cases, the position of the electromagnet will determine the location of the armature plate. Make sure there is space to run the cable.
   a. Tack weld bracket into place. **(Tack weld only).**
   b. Dismount the electromagnetic lock from the bracket. **Warning: Failure to remove electromagnetic lock will result in severe damage to lock.** Weld 3 or 4 beads about 1" apart. Make sure not to weld the junction box. **(See mounting diagram for "No Weld" areas).**
   c. Remount the electromagnetic lock.
2. Mount the armature:
   a. Once the electromagnet is mounted, determine the armature bracket location and tack weld into place (Tack weld only.)
   b. Dismount the armature plate from the bracket**. Warning: Failure to remove the armature plate from the bracket 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 diagram for "No Weld" areas).**
   c. Remount the armature**.**
      i. Put one rubber washer between two steel washers, and place them over the armature screw between the armature and the bracket. This will allow the armature to pivot slightly around the armature screw in order to compensate for gate misalignment.
      ii. Make sure the guide pins are inserted into guide holes to prevent the armature from spinning**.**
      iii. Do not overly tighten the armature against the bracket. The armature must be able to pivot around the armature screw.
3. Run the wires. The goal is to keep as little of the wires exposed as possible.
   a. Run the wires into an out**-**of**-**sight location as close as possible to the electromagnet.
   b. Use standard armored cable to prevent the wires from being cut between the electromagnet and the out**-**of**-**sight location.
4. Connect the wires. **Note: Unit is prewired for 12V operation. See Wiring Diagram (page 3) for more information.**
   a. For 12V operation – connect the red and white wires to +12VDC, and the black and green wires to ground.
   b. 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.
   IMPORTANT: Damage caused by improper connection will void warranty.
5. Test the unit.
6. Insert the tamper caps into the mounting screw access holes of the electromagnet. This should be the last step, as once the tamper caps are in place, they are difficult to remove.

Troubleshooting:

The gate does not lock	• Check that the wires are secure • Check that the power supply is connected and operational • Check that the unit is wired correctly
The gate locks, but can be easily forced open	• Check that the electromagnet and armature plate are properly aligned • Check that 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 correct voltage is present
There is a delay in the gate releasing	• The electromagnet is fitted with a metal oxide varistor to prevent interference, so do not install a secondary diode

Maintenance:

1. Clean the contact surfaces of the electromagnet or armature plate with a soft cloth and non-abrasive, non-corrosive cleaner.
2. Apply a light coat of a silicon lubricant to both contact surfaces and wipe away the excess to prevent rust buildup.
3. Check that the armature plate is securely attached to the bracket, yet can pivot slightly around the armature screw.
4. 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.

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.

NOTICE: The information and specifications printed in this manual are current at the time of publication. However, the SECO-LARM policy is one of continual development and improvement. For this reason, SECO-LARM reserves the right to change specifications without notice. SECO-LARM is also not responsible for misprints or typographical errors.

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