Installation Manual



E-941 **5**A-1200 E-941 **5**A-600 E-941 **5**A-300



Electromagnetic Locks

Also available:

E-941 5A-1 K2PD

1200 lb. maglock with status LED status sensor & delay timer



E-941 DA-1 K2P

Double-Door 1200 lb. maglock with status LEDs & status sensors



HOW THEY WORK

When power is applied to the magnetic lock, it turns on the unit's powerful built-in electromagnet. This electromagnet is attracted to the steel armature plate which is mounted on a door, holding the door fast against unauthorized entry. When power to the magnetic lock is turned off, the electromagnet releases the armature plate, allowing the door to open.

	E-941SA-1200	E-941SA-600	E-941SA-300
Power	12VDC/24VDC	12VDC/24VDC	12VDC
Magnet Size	10½ x 15/8 x 25/8 in.	9 ⁷ / ₈ x 1 ¹ / ₁₆ x 1 ⁵ / ₈ in.	6 ³ / ₄ x ¹⁵ / ₁₆ x 1 ¹ / ₄ in.
	(268 x 42 x 67 mm)	(250 x 27 x 42 mm)	(170 x 23 x 32 mm)
Armature Size	7 ¹ / ₄ x ⁵ / ₈ x 2 ³ / ₈ in.	7 ¹ / ₄ x ¹ / ₂ x 1 ¹ / ₂ in.	6 x ³ / ₈ x 1 ¹ / ₄ in.
	(185 x 16 x 61 mm)	(185 x 12 x 38 mm)	(152 x 10 x 32 mm)
Holding Force	1200 lb. (545kg)	600 lb. (272kg)	300 lb. (136kg)
Current Drain	500mA @ 12VDC	500mA @ 12VDC	315mA @ 12VDC
	250mA @ 24VDC	250mA @ 24VDC	
Voltage Tolerance	± 10%	± 10%	± 10%
Housing	Aluminum	Aluminum	Aluminum
Temperature	14° ∼ 131°F	$14^{\circ} \sim 131^{\circ} F$	$14^{\circ} \sim 131^{\circ} F$
	$(-10^{\circ} \sim 55^{\circ}\text{C})$	$(-10^{\circ} \sim 55^{\circ}\text{C})$	$(-10^{\circ} \sim 55^{\circ}\text{C})$
Weight	11 lb. (5.0kg)	4 lb. 6oz. (2.0kg.)	2 lb. 13.5oz. (1.29kg.)
Certifications	UL, CUL, CE	UL, CUL, CE	CE

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MOUNTING THE E-941SA-300, E-941SA-600 & E-941SA-1200

- A. Drill holes for the mounting plate and armature plate (see fig. 1 and 2) by doing the following:
 - 1. Fold the mounting template along the dotted line.
 - Close the door. Find a mounting location on the door frame near the upper free-moving corner of the door, as close to the corner of the door frame as possible.
 - 3. Place the template against the door and frame.
 - 4. Drill two holes in the door frame and three holes in the door as indicated on the template.

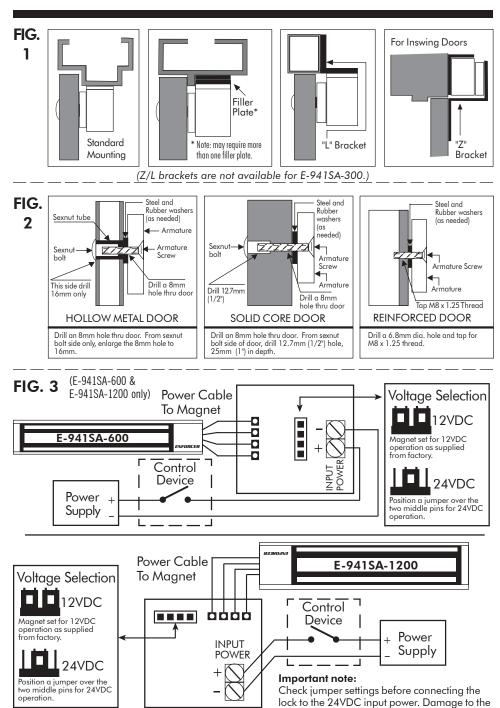
NOTE — A filler plate or an L-bracket or Z-bracket (optional) may be required for the electromagnet, depending on the door frame. See fig. 1. Z/L brackets are not available for E-941SA-300.

- B. Mount the armature plate to the door using at least two steel and one rubber washer (fig. 2):NOTE — Actual installation varies according to door style.
 - 1. Put one rubber washer between two steel washers, and place them over the armature screw between the armature plate and the door. This will allow the armature plate to pivot slightly around the armature screw in order to compensate for door misalignment.
 - Tighten the sexnut bolt enough so the armature plate can withstand the force of someone attempting to break down the door while the electromagnet is engaged.
 - Do not tighten the armature plate against the door. The plate must be able to pivot around the armature screw.

- 4. Make sure the anti-spin guides are in the two guidepin holes.
- C. Screw the mounting plate to the door frame or optional bracket:
 - Screw the two short self-tapping screws in the slotted holes of the mounting plate and adjust the position of the mounting plate so that it and the armature plate form a 90-degree angle.
 - Once the position is correct, use the long self-tapping screws to permanently mount the bracket.
 - 3. Remove the two short screws.
- D. Drill the cable access hole.
- E. Mount the electromagnet to the door frame (fig. 1) Use the Allen wrench to screw the socket-head mounting screws through the bottom of the electromagnet into the mounting bracket. (Brass sleeves will be needed for the E-941SA-600.)
- F. Connect the power leads (fig. 3):
 - 1. Open the electromagnet.
 - Run two power leads from the power supply through the cable access hole into the electromagnet.
 - Connect the power leads to the terminal block.
 - 4. Close the electromagnet.

 Note: E-941SA-300 is for 12VDC operation only. Connect the red wire to +12VDC, and the black wire to ground.
- G. Test the unit.
- H. Insert the tamper caps into the mounting screw access holes. This should be the last step, as once the tamper caps are in place, they will be difficult to remove.

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lock may result from incorrect jumper settings.

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TROUBLESHOOTING

Problem:	Possible cause:	Solutions:
Door does not lock	No power	Check to make sure the wires are securely tightened to the terminal block Check that the power supply is connected and operating Make sure the lock switch is wired correctly
Door locks, but can be easily forced open	Poor contact between electromagnet and armature plate	Make sure the electromagnet and armature plate are properly aligned Make sure the contact surfaces of the electromagnet and armature plate are clean and free from rust
	Incorrect voltage setting	Check the power leads with a meter, and make sure 12VDC or 24VDC is present
Delay in door releasing	A secondary diode was installed across the electromagnet	The electromagnet is fitted with a 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 a silicon lubricant to prevent rust. Wipe away the excess.
- Check that the armature plate is securely attached to the door, yet can pivot slightly around the armature screw.
- Check that the electromagnet is securely attached to the door frame.

UL CERTIFICATION

E-941SA-600 and E-941SA-1200 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: ENFORCER Electromagnetic Locks are warranted against defects in material and workmanship while used in normal service for a period of one (1) year from the date of sale to the original customer. Our obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation pre-paid, to SECO-LARM.

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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