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V2M600 Series Maglock Installation Instructions



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Product Information

Holding Force

600 lbs (272 Kg)

Dimensions (L x W x H)

9-3/8" x 1-7/8" x 1-1/6" [238 mm x 48 mm x 26.5 mm]

Electrical

NOTE: Factory default setting is 24 VDC.

12 VDC and 24 VDC operation (field selectable via voltage selection switch in the wiring compartment)

Product Type

NOTE 1: The V2M600 Series with Magnetic Bond Sensor (MBS) uses a hall-effect sensor.

NOTE 2: The V2M600 Series with Door Position Switch (DPS) uses a change-over reed switch sensor.

Besides the unmonitored version, the V2M600 Series Maglock is available with either a MBS, a DPS, or both.

LED Operation Colors for V2M600 with MBS

The LED operation color can be set in the field. Colors can be reversed by reversing the two-pin plug connection on the Printed Circuit Board (PCB). The factory default setting is as follows:

LED indicator OFF	No power to the magnet
LED indicator RED	Power on magnet, door open
LED indicator GREEN	Power on magnet, door closed

Recommended Tools

Screwdriver, #2 Phillips

Center Punch

Drill

Drill Bit: 15/32" [12 mm], 5/8" [16 mm],

Tap: 1/4"-20 UNC [M6-1.0]

Ensuring Correct Voltage Setting

NOTE: Factory default setting is 24 VDC.

1. ENSURE the onboard PCB is set for the correct and desired operating voltage.
2. **IF** a change is required, **THEN ACCESS** the wiring compartment by removing the wiring compartment Phillips head screw and cover (see Figure 1, “Wiring Compartment”), **AND TOGGLE** the 12V/24V slide switch to the desired position.

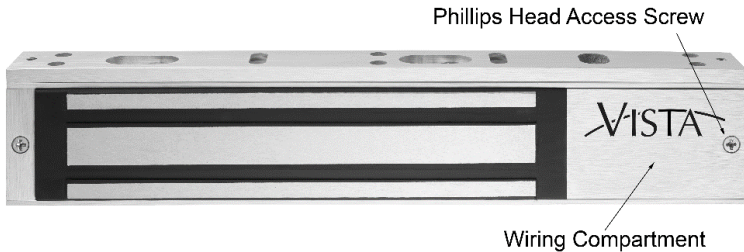


Figure 1. Wiring Compartment

3. REPLACE the cover and Phillips head screw.

Installing V2M600 on Out-Swinging Door

Determining the Door Frame Header

1. DETERMINE the type of door frame header and whether a filler plate, header bracket, or angle bracket is required for installation (see Figure 2, “Door Frame Installation Options”).

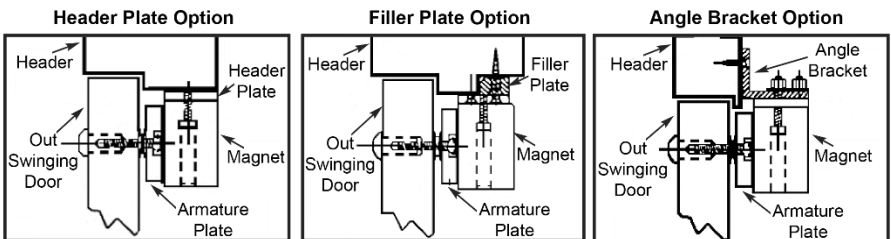


Figure 2. Door Frame Installation Options

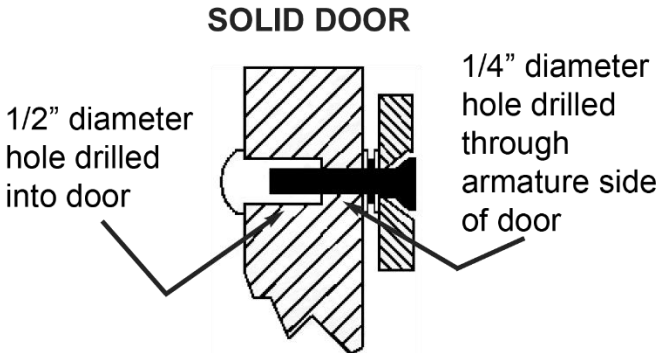
2. REMOVE the header plate from the magnetic lock.
 - a. LOOSEN BUT DO NOT REMOVE the two Phillips head screws on top of the header plate.
 - b. SLIDE and REMOVE the header plate from the magnetic lock.
3. FOLD the included installation template on the dotted line to form a 90-degree angle.

NOTE: If installing to a pair of double doors, the template is placed at the center of the door opening.

4. PLACE the bottom portion of the installation template against the door.
5. TAPE the installation template in place.
6. LOCATE and MARK the hole locations to the door and header frame.

Installing the Armature Plate on a Solid Door

7. DRILL a 1/4" [6.35 mm] diameter hole through the armature side of the door (see Figure 3, "Installing Armature to Solid Door").
8. DRILL a 1/2" [12.7 mm] diameter hole into the door to accommodate the armature bolt (see Figure 3).



Armature Plate must rock on door

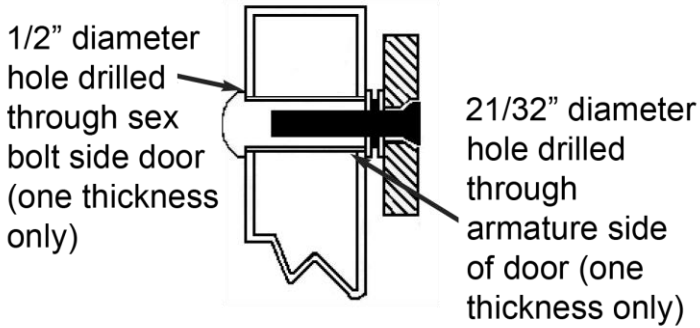
Figure 3. Installing Armature to Solid Door

Installing the Armature Plate on a Hollow Door

9. DRILL a 21/32" [16.67 mm] diameter hole through the armature side of the door (see Figure 4, "Installing Armature to Hollow Door").

10. DRILL a 1/2" [12.7 mm] diameter hole through the sex bolt door side to accommodate the armature bolt (see Figure 4).

HOLLOW DOOR

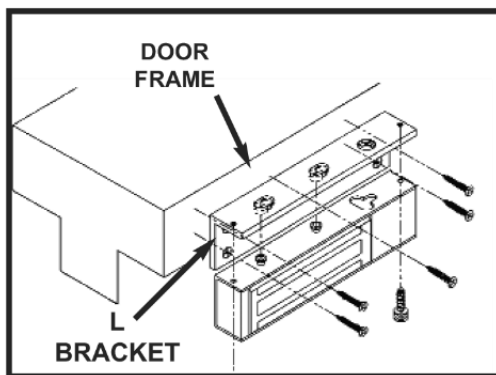


Armature Plate must rock on door

Figure 4. Installing Armature to Solid Door

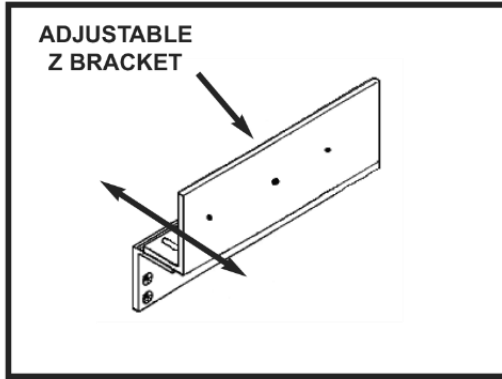
Installing V2M600 on In-Swinging Door

1. FASTEN the L bracket on the door frame in a suitable location.
2. MOUNT the magnetic lock to the L bracket.
3. ENSURE the magnetic lock does not obstruct the closing of the door.
4. CONNECT the correct voltage to the magnetic lock.



NOTE: The cap screws are not tightened at this time. The Z bracket must be adjustable.

5. ASSEMBLE the Z bracket with the provided socket head cap screws.



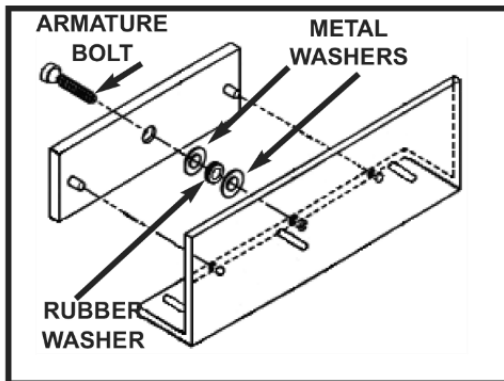
NOTE: The rubber washer attached to the armature bolt is not removed.

6. MOUNT the armature plate to the adjustable section of the Z bracket using the armature bolt.

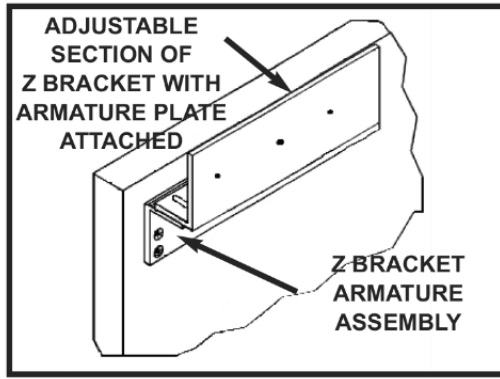
NOTE: The washer assembly must be between the armature plate and the adjustable section of the Z bracket.

7. USE one rubber washer between the two metal washers on the armature bolt.

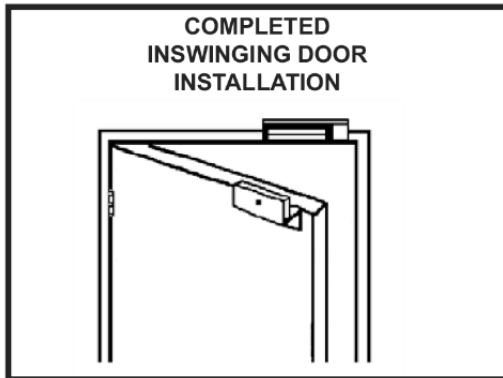
NOTE: The armature must not be over tightened. The armature must rock to align with the magnet.



8. CLOSE the door and ALIGN the armature plate to the magnet.
9. APPLY power to the magnet.
10. ALLOW the armature plate to bond with the magnet, ensuring the Z bracket assembly is firmly against the closed door.
11. TIGHTEN the cap screws holding the Z bracket armature plate assembly.
12. FASTEN the Z bracket assembly to the door using the supplied screws.



13. ENERGIZE and DE-ENERGIZE the magnetic lock several times to open and close the door in order to check the completed alignment and installation of the magnet and armature plate.



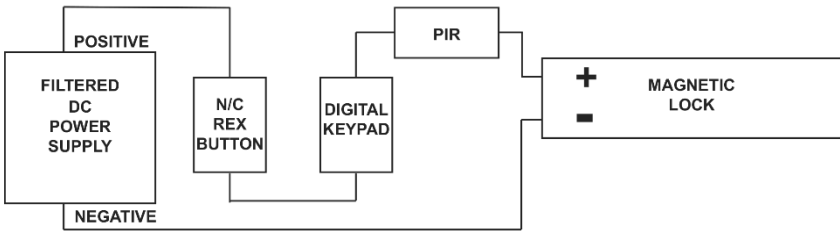
Wiring the V2M600

Electrical Specifications

Single Magnetic Lock: 530 mA at 12 VDC
 280 mA at 24 VDC

Double Magnetic Locks: 530 mA at 12 VDC (each lock)
 280 mA at 24 VDC (each lock)

Typical Magnetic Lock Wiring



Wire Gauge Chart

D C C u r r e n t	Distance From Power Supply to Magnetic Lock									
	12 VDC 24 VDC	50 feet	100 feet	150 feet	200 feet	300 feet	400 feet	500 feet	750 feet	1000 feet
200 mA	24	22	22	22	20	18	18	16	14	14
	24	24	24	22	22	22	20	20	18	18
300 mA	24	22	22	20	18	18	16	14	14	14
	24	24	22	22	20	20	18	16	14	14
400 mA	22	22	20	18	18	16	14	14	12	12
	24	22	22	22	20	18	16	14	14	14
600 mA	22	20	18	18	16	14	14	12	10	10
	24	22	22	20	18	18	16	14	14	14
800 mA	22	18	18	16	14	12	10	10	8	8
	22	22	20	18	18	16	14	14	12	12
1A	20	18	16	14	14	12	10	10	8	8
	22	20	20	18	16	14	14	12	10	10

Magnetic Lock Care and Maintenance

Magnetic locks have no internal moving parts and require minimal maintenance. It is recommended that the face of the armature plate and magnet be wiped clean and a light coating of a suitable silicone lubricant applied to each surface to prevent rust, even though the mating surfaces have been plated (required only if dirt buildup is observed). The armature plate bolt and the Phillips head screws holding the magnet to the header plate should be checked every three months to ensure a safe and secure installation.

Troubleshooting

PROBLEM	CAUSE	SOLUTION
Lock Buzzes	AC voltage connected to lock	SUPPLY DC voltage to lock
	AC ripple in power supply	REPLACE power supply
Insufficient Holding Force	Incorrect input voltage	CHECK voltage switch position for correct setting
	Low input voltage	CHECK power supply voltage wire gauge incorrect for wire run
	Misalignment of armature plate	CHECK to ensure armature plate covers all magnetic poles of the lock
	Armature plate screwed tight to door	CHECK that armature plate rocks on door to align with door
	Wrong hardware assembly	CHECK that a metal washer, rubber washer, and metal washer are between door and armature plate
Door Does Not Lock	No power to door	CHECK power at lock
		CHECK power supply
		CHECK all connections
Door Status Sensor Not Working (applicable models)	Magnet in armature plate not aligned with lock	ALIGN magnet in armature plate with door status sensor dot on lock

If any problem persists, call Technical Support at 1-800-624-5625 (toll free).

VistaCare Warranty

SECURITRON warrants that it will replace at customer's request, for one (1) year from the date of invoice, for any reason, products branded VISTA by Securitron. SECURITRON will use its best efforts to ship a replacement product by next day air freight at no cost to the customer within 24 hours of SECURITRON's receipt of the product from customer. If the customer has an account with SECURITRON or a valid credit card, the customer may order an advance replacement product, whereby SECURITRON will charge the customer's account for the price of the product plus next day air freight, and will credit back to the customer the full amount of the charge, including outbound freight, upon SECURITRON's receipt of the original product from the customer. SECURITRON's sole and exclusive liability, and customer's sole remedy, is limited to the replacement of the VISTA product when delivered to SECURITRON's facility (freight and insurance charges prepaid by customer). The replacement, at SECURITRON's sole option, may be the identical item or a newer unit which serves as a functional replacement. In the event that the product type has become obsolete in SECURITRON's product line, this VISTA warranty will not apply. This VISTA warranty also does not apply to custom, built to order, or non-catalog items, items made by others (such as batteries), returns for payment, distributor stock reductions, returns seeking replacement with anything other than the identical product, or products installed outside of the United States or Canada. This VISTA warranty also does not apply to removal or installation costs. SECURITRON will not be liable to the purchaser, the customer or anyone else for incidental or consequential damages arising from any defect in, or malfunction of, its products. SECURITRON does not assume any responsibility for damage or injury to person or property due to improper care, storage, handling, abuse, misuse, or an act of God. EXCEPT AS STATED ABOVE, SECURITRON MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING WITHOUT LIMITATION THE CONDITION OF ITS PRODUCTS, THEIR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

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