SDC 1512V

SDC 1512 Series EMLock Double Modular Electromagnetic Door Lock Instruction Manual

Model: 1512V

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the SDC 1512 Series EMLock Double Modular Electromagnetic Door Lock. This Grade 1 electromagnetic lock is designed for secure access control applications, offering a robust 1650 lbs holding force. It features a surface mount design and autosensing 12/24VDC voltage input for versatile integration into various security systems.

2. Safety Information

- **Electrical Safety:** Installation must be performed by qualified personnel in accordance with all local and national electrical codes. Disconnect power before performing any wiring or servicing.
- **Heavy Equipment:** The EMLock is a heavy device. Use appropriate lifting techniques and tools during installation to prevent injury.
- **Secure Mounting:** Ensure the lock and armature plate are securely mounted to the door frame and door using appropriate hardware to achieve the stated holding force and prevent detachment.
- **Proper Voltage:** Connect the lock to a 12VDC or 24VDC power supply. The unit features autosensing voltage input.

3. Product Overview

The SDC 1512 Series EMLock is a high-security, double modular electromagnetic lock. Its modular design allows for field upgradeable outputs and servicing without requiring removal from the door frame. Key features include:

- ANSI Grade 1 compliant.
- BHMA certified 1650 lbs holding force.
- Autosensing 12/24VDC input.
- UL, CSFM, MEA listed.
- Surface mount installation.

Figure 1: SDC 1512 Series EMLock Double Modular Electromagnetic Door Lock. This image shows the main body of the electromagnetic lock, typically mounted on the door frame, and its corresponding armature plate, which is mounted on the door.

4. Package Contents

Verify that all components are present before beginning installation:

- SDC 1512 Series EMLock Body (Double)
- Armature Plates (2)
- Mounting Hardware (screws, washers, sex nuts)
- Installation Template
- Instruction Manual (this document)

5. Setup and Installation

Professional installation is recommended for optimal performance and safety. Refer to the included installation template for precise drilling and mounting locations.

5.1. Tools Required

- Drill and drill bits
- Screwdrivers (Phillips and flathead)
- Measuring tape and pencil
- Wire strippers and crimpers
- Multimeter (for verifying voltage)

5.2. Mounting the EMLock Body

1. Determine the optimal mounting location on the door frame, typically at the top of the door.
2. Use the provided template to mark drilling points for the lock body.
3. Drill pilot holes as marked.
4. Securely attach the EMLock body to the door frame using the supplied mounting hardware. Ensure it is level and firmly seated.

5.3. Mounting the Armature Plates

1. With the door closed, align the armature plates with the EMLock body. Mark the drilling points on the door.
2. Drill holes through the door for the armature plate mounting bolts.
3. Install the armature plates using the sex nuts and bolts, ensuring they can pivot slightly to allow for proper alignment with the EMLock body when the door is closed. This slight pivot is crucial for

achieving full holding force.

5.4. Wiring

1. Route power wiring from your access control panel or power supply to the EMLock body.
2. Connect the power wires to the designated terminals on the EMLock. The unit automatically detects 12VDC or 24VDC input.
3. If applicable, connect any optional output wires (e.g., door status sensor) to your access control system.
4. Verify all connections are secure and correctly polarized.

6. Operating Instructions

The SDC 1512 Series EMLock operates by energizing the electromagnet to secure the door. When power is applied, the electromagnet creates a strong magnetic field, attracting the armature plate and locking the door. To unlock, power to the EMLock is interrupted, releasing the armature plate.

- **Locking:** When the access control system or power supply provides power to the EMLock, the door will be secured.
- **Unlocking:** When power to the EMLock is cut (e.g., by an access control reader, exit button, or fire alarm system), the door will unlock.

7. Maintenance

Regular maintenance ensures the longevity and reliable operation of your EMLock.

- **Cleaning:** Periodically clean the face of the EMLock and the armature plate with a soft, dry cloth. Do not use abrasive cleaners or solvents, as these can damage the finish and performance.
- **Inspection:** Annually inspect all mounting hardware for tightness. Check wiring connections for any signs of wear or corrosion.
- **Alignment:** Ensure the armature plate remains properly aligned with the EMLock body. Misalignment can reduce holding force and cause premature wear.

8. Troubleshooting

Problem	Possible Cause	Solution
Lock does not engage (door does not secure)	No power to the EMLock Incorrect wiring Armature plate misalignment	Check power supply and connections Verify wiring against diagram Adjust armature plate for proper contact
Reduced holding force	Gap between EMLock and armature plate Debris on contact surfaces Insufficient power	Ensure armature plate floats freely and makes full contact Clean EMLock and armature plate surfaces Verify power supply voltage and current

Problem	Possible Cause	Solution
Lock does not release	Power not being cut Stuck armature plate	Check access control system for proper signal to cut power Inspect armature plate for obstructions or damage

9. Specifications

- **Model:** 1512V
- **Holding Force:** 1650 lbs
- **Input Voltage:** 12/24 VDC (Autosensing)
- **Mounting:** Surface Mount
- **Certifications:** ANSI/BHMA Grade 1, UL, CSFM, MEA Listed
- **Item Weight:** 21.5 pounds
- **Manufacturer:** SDC

10. Warranty and Support

SDC products are manufactured to high standards and are backed by a manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation provided with your purchase or visit the official SDC website. For technical support, service, or replacement parts, please contact SDC customer service directly.

SDC Contact Information: (Please refer to the official SDC website or product packaging for the most current contact details.)