OBO HANDS Bolt S

OBO HANDS Electric Mortise Lock (Model Bolt S) Instruction Manual

Model: Bolt S

1. Product Overview

The OBO HANDS Electric Mortise Lock, Model Bolt S, is a robust and reliable security device designed for access control systems. This lock operates in a **Fail-Safe mode**, meaning it will unlock automatically when power is removed, ensuring safety during power outages. It features an adjustable time delay for locking, making it suitable for various door types and applications.

This electric lock is constructed from durable aluminum alloy and is designed for use with both wooden and metal doors. Its compact design allows for discreet installation within the door frame.

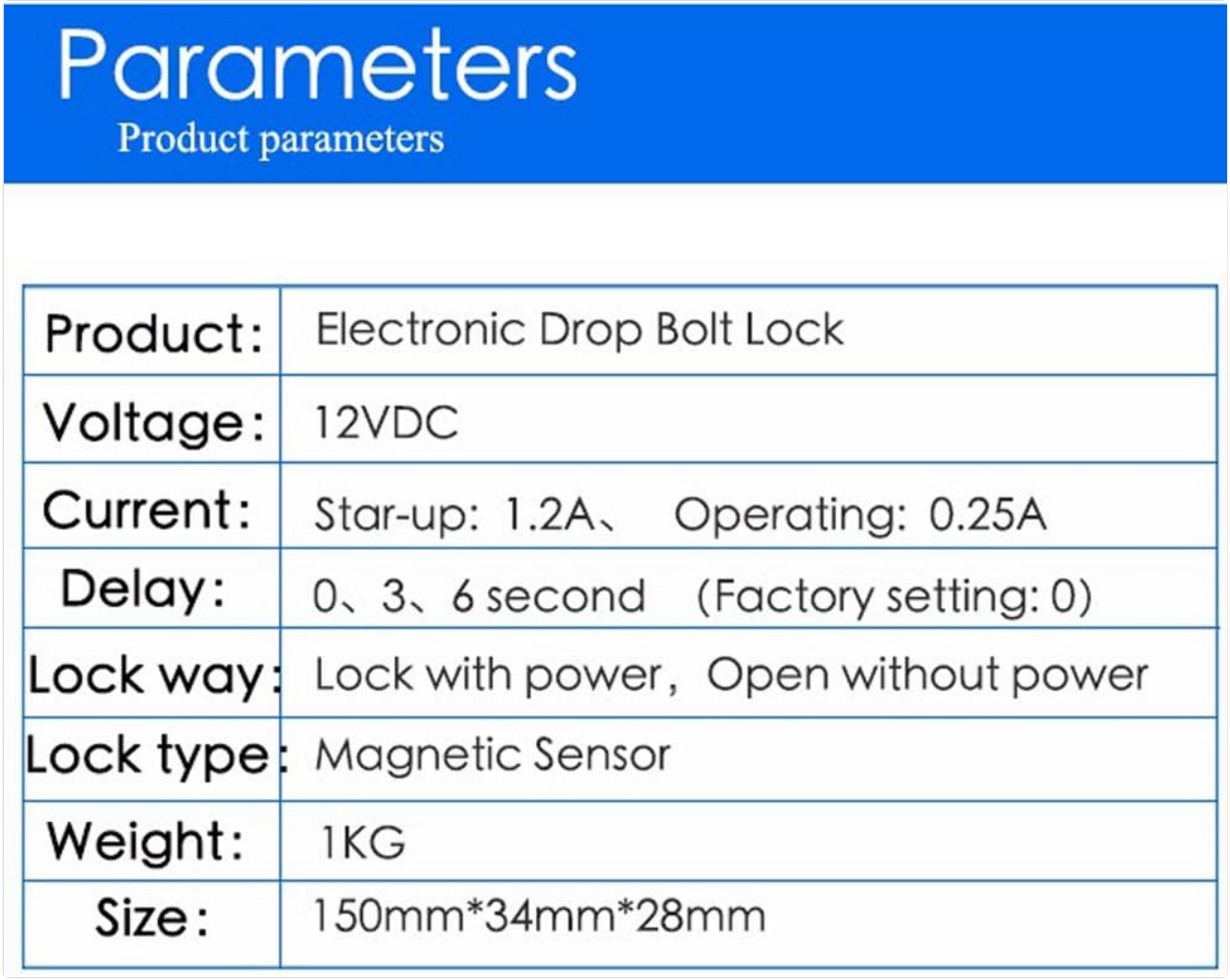
Two units of the OBO HANDS Electric Mortise Lock, along with the included mounting screws, ready for installation.

2. Key Features

- **Fail-Safe Operation:** Unlocks when power is off, ideal for emergency exits.
- **Adjustable Time Delay:** Configurable locking delay of 0, 3, or 6 seconds.
- **Durable Construction:** Made from high-quality aluminum alloy.
- **Low Power Consumption:** Efficient operation with low standby current.
- **Magnetic Induction Lock:** Utilizes magnetic force for secure locking.
- **Versatile Application:** Suitable for wooden, metal, anti-theft, and fire doors.

An overview of the electric mortise lock's key characteristics, emphasizing its reliable and secure operation.

3. Specifications



A table detailing the technical specifications of the electric mortise lock, including voltage, current, delay settings, and lock type.

Parameter	Value
Product	Electronic Drop Bolt Lock
Brand	OBO HANDS
Model Name	Bolt S
Working Voltage	DC12V / DC24V (Adjustable)
Working Current (Start-up)	1.2A
Working Current (Operating)	0.25A (120mA)
Delay Time	0, 3, 6 seconds (Factory setting: 0)
Lock Mode	Magnetic Induction (NC Model: Locked when power on, unlocked when power off)
Material	Aluminum Alloy
Dimensions (L x W x H)	150mm x 34mm x 28mm (5.83 x 1.54 x 1.69 inches)
Item Weight	0.6 Pounds (approx. 9.6 ounces)

Color	Silver

Diagram illustrating the precise dimensions of the electric mortise lock: 150mm length, 34mm width, and 28mm height.

4. Installation and Setup

Proper installation is crucial for the optimal performance and security of your electric mortise lock. This lock is designed for concealed installation within the door frame.

4.1 Pre-Installation Checks

- Ensure the door type (wooden, metal) is compatible with the lock's dimensions and mounting requirements.
- Verify that the power supply (DC12V or DC24V) matches the lock's requirements.
- Confirm that all necessary tools and components (lock unit, screws, wiring) are available.

4.2 Wiring Instructions

The lock typically has multiple wires for power and control. Refer to the specific wiring diagram provided with your access control system. Generally:

- Connect the **Red wire** to the positive (+) terminal of the DC power supply.
- Connect the **Black wire** to the negative (-) terminal of the DC power supply.
- Additional wires (e.g., Yellow and White) are typically for door status feedback (Common and NC contacts) and should be connected to your access control panel or alarm system as required.

4.3 Time Delay Adjustment

The lock features a switch to adjust the locking delay. This delay determines how long the bolt remains retracted after activation before extending to lock the door. This is useful for allowing the door to fully close and

settle before locking.

- Locate the small switch or jumpers on the lock unit.
- Set the delay to **0, 3, or 6 seconds** according to your application needs. The factory default is usually 0 seconds.

Close-up images showing the time adjustment switch (0, 3, 6 seconds), hexagonal screw, spring bolt mechanism, and the aluminum alloy material of the lock.

4.4 Mounting the Lock

The lock is designed to be mortised into the door frame or door. Ensure precise alignment between the lock body and the strike plate (if applicable) for smooth operation.

- Carefully measure and mark the installation location on the door frame and door.
- Rout out the necessary cavity for the lock body.
- Secure the lock unit using the provided screws.
- Ensure the magnetic sensor aligns correctly with the corresponding part on the door when closed.

Illustrations demonstrating the installation of the electric mortise lock on various door types, including wooden doors and metal doors.

5. Operation

The OBO HANDS Electric Mortise Lock operates based on magnetic induction and its fail-safe design.

5.1 Fail-Safe Mode

This lock is a **Fail-Safe (NC)** type. This means:

- When power is applied, the lock bolt extends, securing the door.
- When power is removed (e.g., during a power outage or intentional disconnection), the lock bolt retracts, and the door becomes unlocked. This feature is critical for safety in emergency situations, allowing free exit.

5.2 Locking and Unlocking

- **Locking:** When the door is closed and the magnetic sensor detects proper alignment, applying power to the lock will cause the bolt to extend and secure the door after the set time delay.

- **Unlocking:** To unlock the door, power to the lock must be interrupted. This is typically done via an access control system (e.g., card reader, push button, remote control) which momentarily cuts power to the lock, causing the bolt to retract.

5.3 Testing the Lock

When testing the lock outside of a door installation, it is important to simulate the closed-door condition for the magnetic sensor to engage. Place two pieces of iron or a suitable magnetic material together on the lock's sensor area to activate the magnetic force and allow the bolt to extend.

6. Maintenance

The OBO HANDS Electric Mortise Lock is designed for low maintenance. Regular checks can help ensure its longevity and reliable operation.

- **Cleaning:** Keep the lock body and magnetic sensor free from dust and debris. Use a soft, dry cloth for cleaning. Avoid abrasive cleaners or solvents.
- **Connections:** Periodically inspect wiring connections to ensure they are secure and free from corrosion.
- **Alignment:** Check the door and frame alignment to ensure the lock bolt and magnetic sensor engage smoothly without obstruction or excessive friction. Misalignment can cause premature wear or operational issues.
- **Lubrication:** The internal mechanism is generally self-lubricating. Avoid applying oil or grease unless specifically recommended by the manufacturer for a particular issue.

7. Troubleshooting

If you encounter issues with your electric mortise lock, refer to the following common problems and solutions:

- **Lock does not engage/disengage:**
  - Check power supply: Ensure the lock is receiving the correct DC12V/DC24V power.
  - Verify wiring: Confirm all wires are correctly connected and secure.
  - Check magnetic sensor: Ensure the door is fully closed and the magnetic sensor is properly aligned and engaged. The lock requires the magnetic sensor to detect closure before the bolt will extend.
  - Inspect for obstructions: Look for any physical obstructions preventing the bolt from extending or retracting.
- **Lock is stuck or difficult to operate:**
  - Check door alignment: Misalignment can cause the bolt to bind. Adjust the door or lock position if necessary.
  - Examine the bolt: Ensure the bolt itself is not damaged or bent.
  - Avoid side loading: The lock's pin is not designed for significant side loading. Ensure the door closes squarely onto the lock.
- **Unexpected unlocking (Fail-Safe behavior):**
  - This is normal operation for a Fail-Safe lock. If power is lost, the lock will unlock. If you require the door to remain locked during a power outage, a Fail-Secure lock type is needed, or a backup power supply (UPS) for your access control system.

8. Warranty and Support

For technical assistance, warranty inquiries, or any questions regarding your OBO HANDS Electric Mortise Lock, please contact our support team.

Customer Support:

- **WhatsApp:** +86 177 2255 8183
- **Availability:** Monday - Sunday, 24/7

Please have your product model (Bolt S) and any relevant purchase information ready when contacting support.