



# 3850 Electric Dropbolt Manual

## Statement

The 3850 Electric Dropbolt is Aluminum housing designed for elegant appearance and enhanced durability. The 3850 Electric Dropbolts are available in 32mm and 38mm wide faceplates (same as common faceplate dimension) with DPS (Door Position Status) output.

## Application

Frameless glass door, hollow metal door frame

## Feature

### Double Action Doors

3850 electric dropbolt is especially designed for both out-swing and in-swing doors.

### Vandal Resistant Circuitry Design

The reed sensor automatically disconnect once the bolt is completely locked to avoid unauthorized access attempts.

### Long Life Solenoids

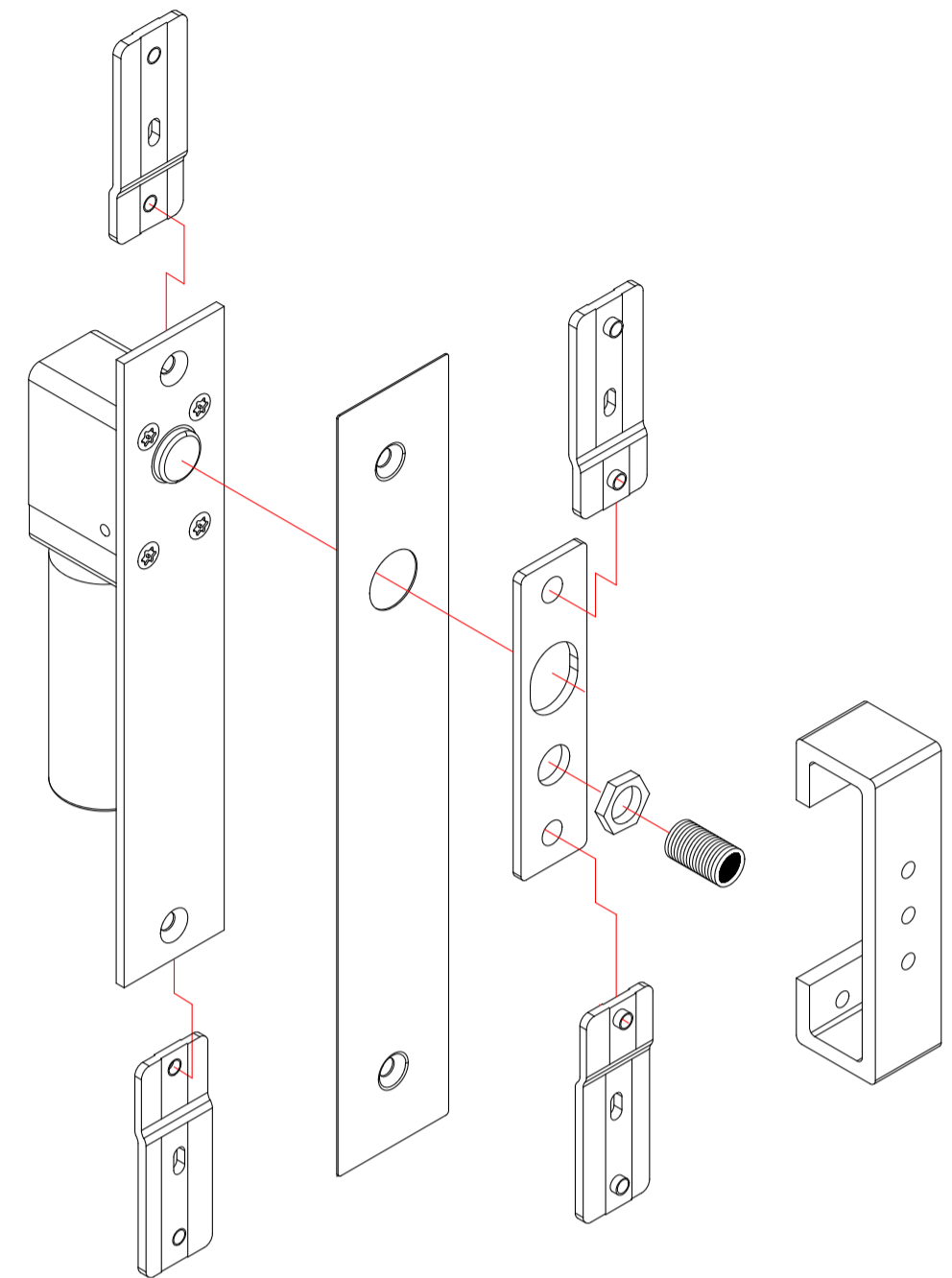
Specially designed solenoid for enhanced strength and long operating life time through up to 500,000 cycle tests.

### Energy Saving Design

After the electric dropbolt is completely locked, the current draw drops from 0.9A to 0.3A to prolong its lifetime.

### Relay Strike Time (Time Delay Setting)

Adjustable time delay of 0, 3, 6, 9 seconds (Default value is 0 second). Once the magnet is sensed by the dropbolt, the lock bolt will stick out after the time delay. The time delay is set to lock up the electric dropbolt after the closed door is completely still.



## Specification

Parameter	Description
Operating Voltage	12VDC (Tolerance : ±10%)
Current Draw	Pull in: 0.9A@12VDC Holding: 0.3A@12VDC
Operating Temperature	-10~45°C
Relay Electric Current	0.25A @30VDC
Relay Strike Time	0, 3, 6, 9 seconds
Surface Temperature	Ambient Temperature +20°C
Solenoid Test	Over 500,000 times
Faceplate Material	Alluminum Alloy
Weight	About 1~2 kgs

## Ordering Information

Ordering Code: 3850

Each standard package includes the following:

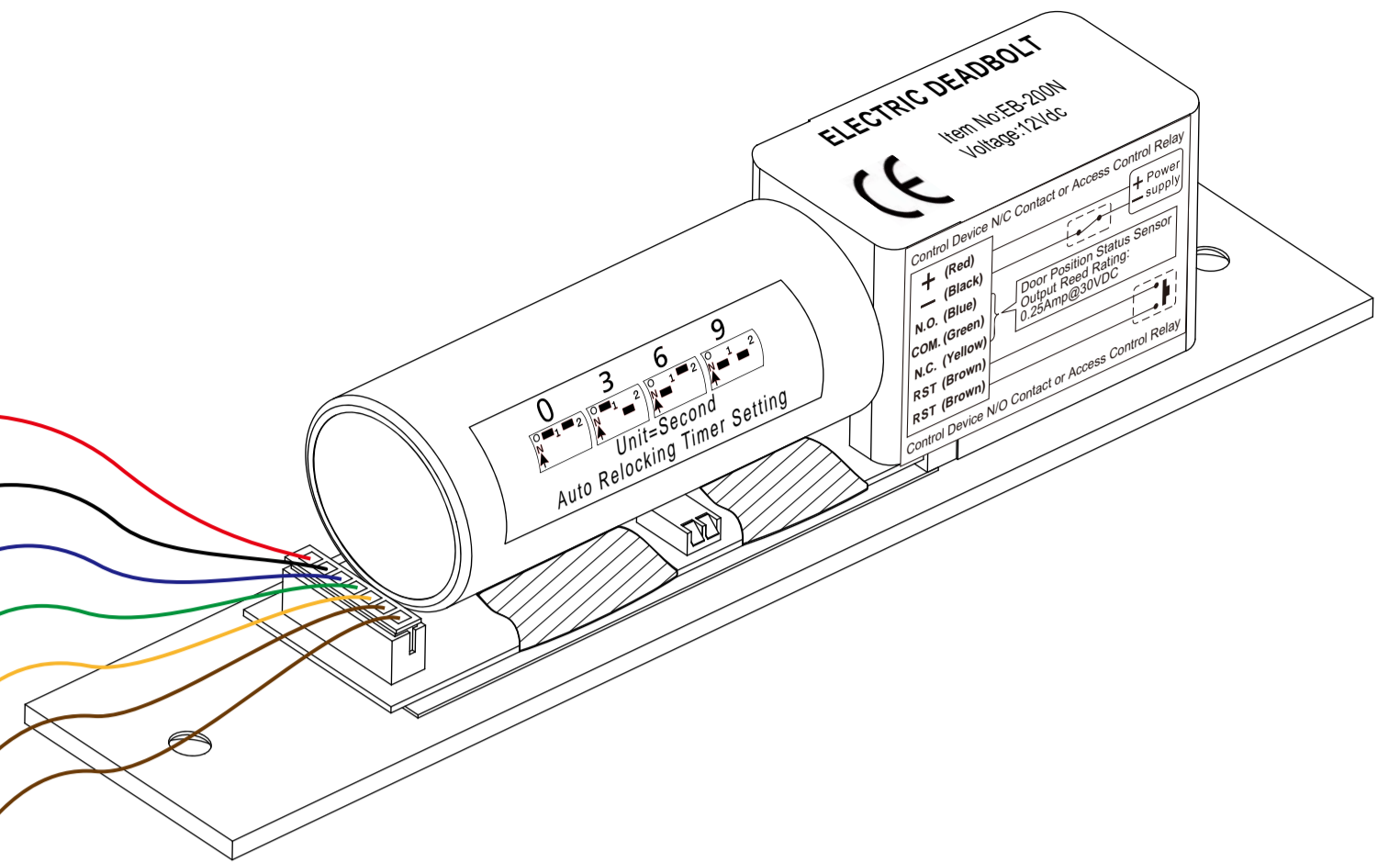
Parts	Qty
Electric Dropbolt	1 pcs
Strike Plate	1 pcs
Fixing Lug	4 pcs
Adjusting Washer	1 pcs
Bracket	1 pcs
Square Screw(4mm)	4 pcs
Pozi Pan Machine Screw (4x12mm)	4 pcs
Pozi Pan Machine Screw (5x12mm)	8 pcs
Pozi Pan Self Tapping Screw (Pointed, 5x32mm)	4 pcs

## Wiring Diagram

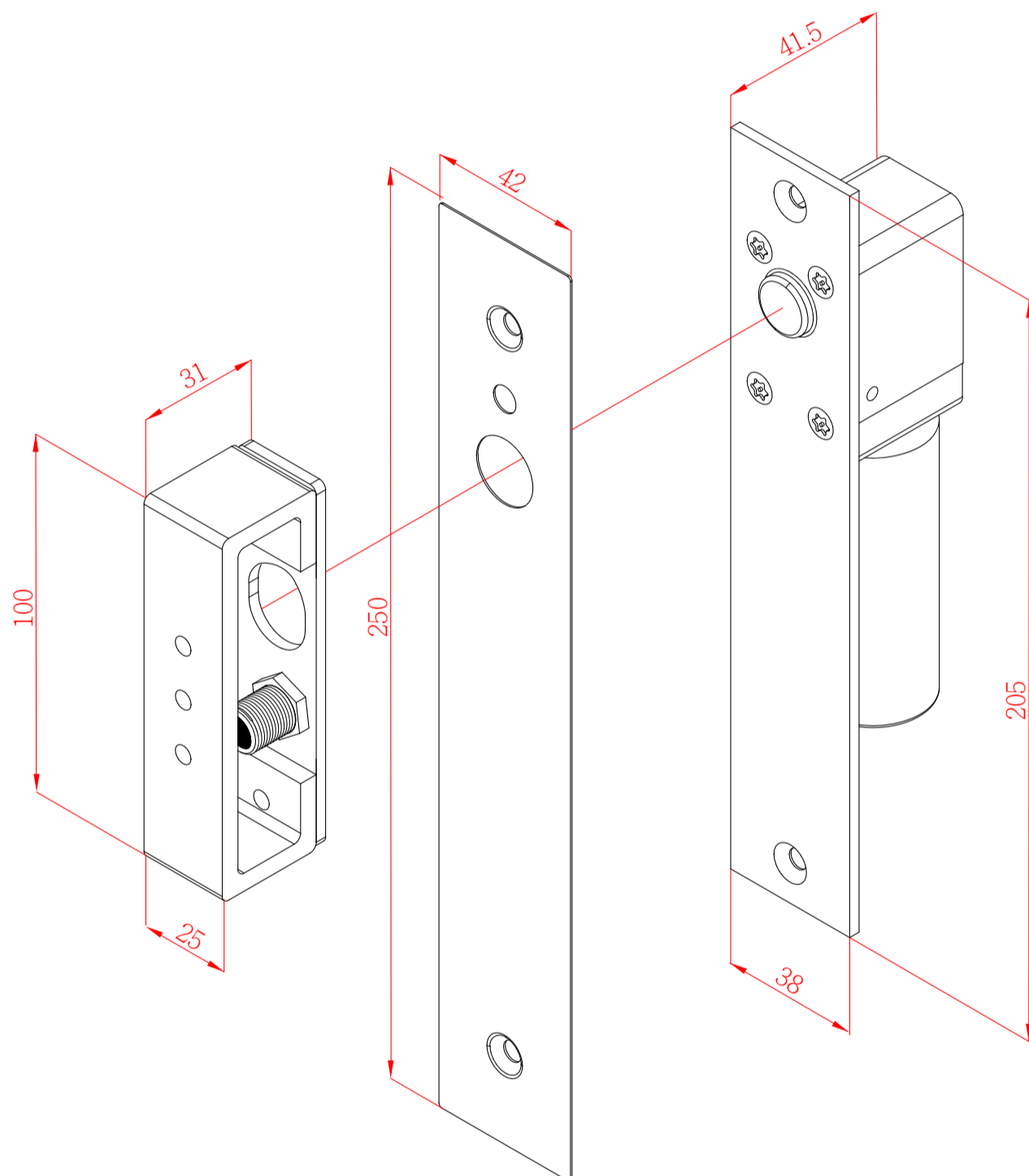
### Relay Strike Time

Time	1	2
0 sec.	ON	ON
3 sec.	ON	OFF
6 sec.	OFF	ON
9 sec.	OFF	OFF

- + (Red)
- (Black)
- N.O (Blue)
- COM.(Green)
- N.C (Yellow)
- RST (Brown)
- RST (Brown)

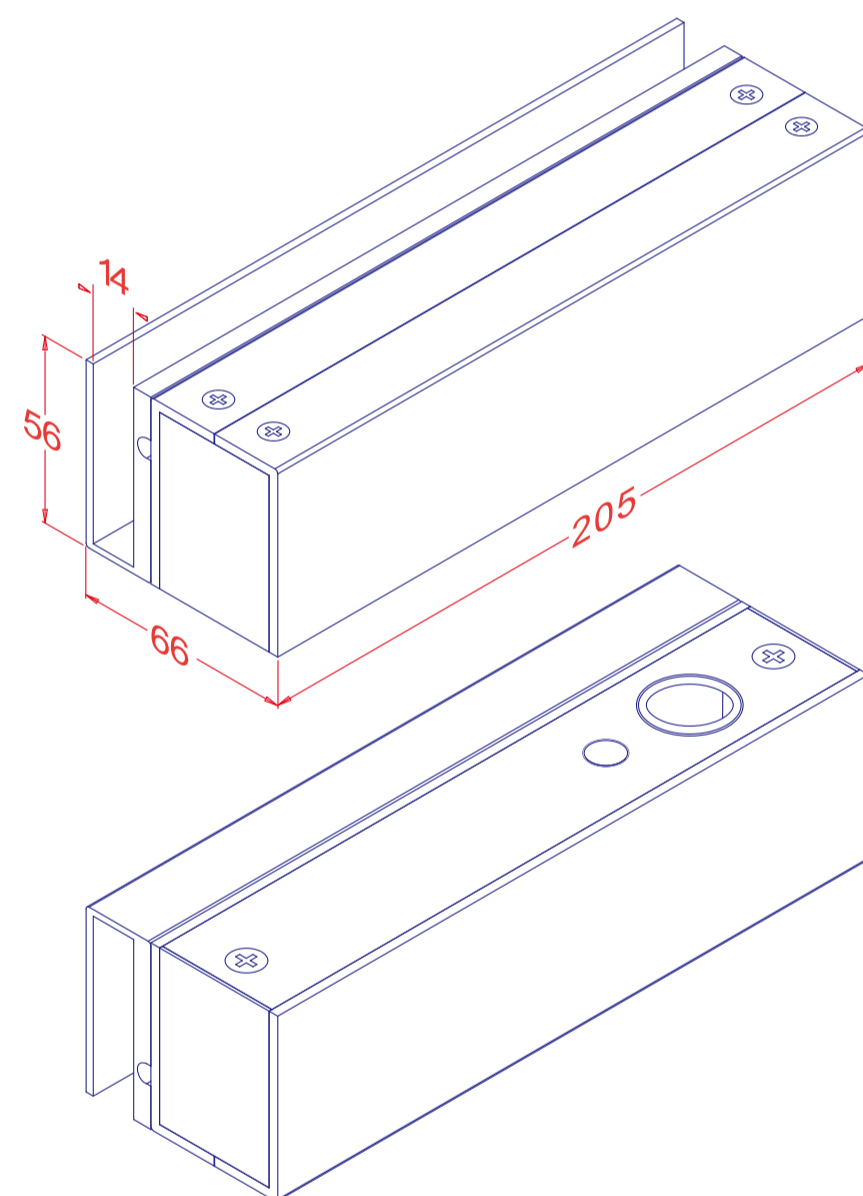


## Dimension



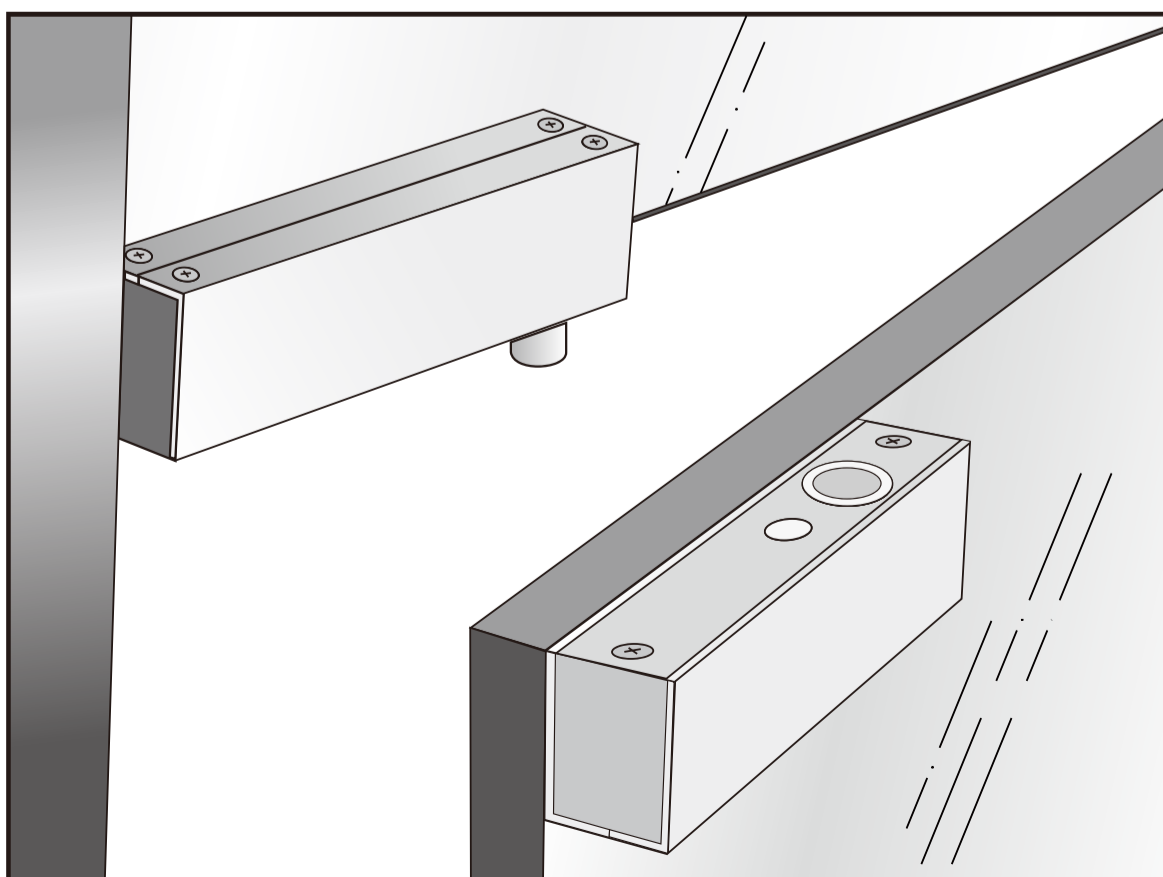
## Optional Bracket

3850 can be mounted on frameless glass doors and glass walls.

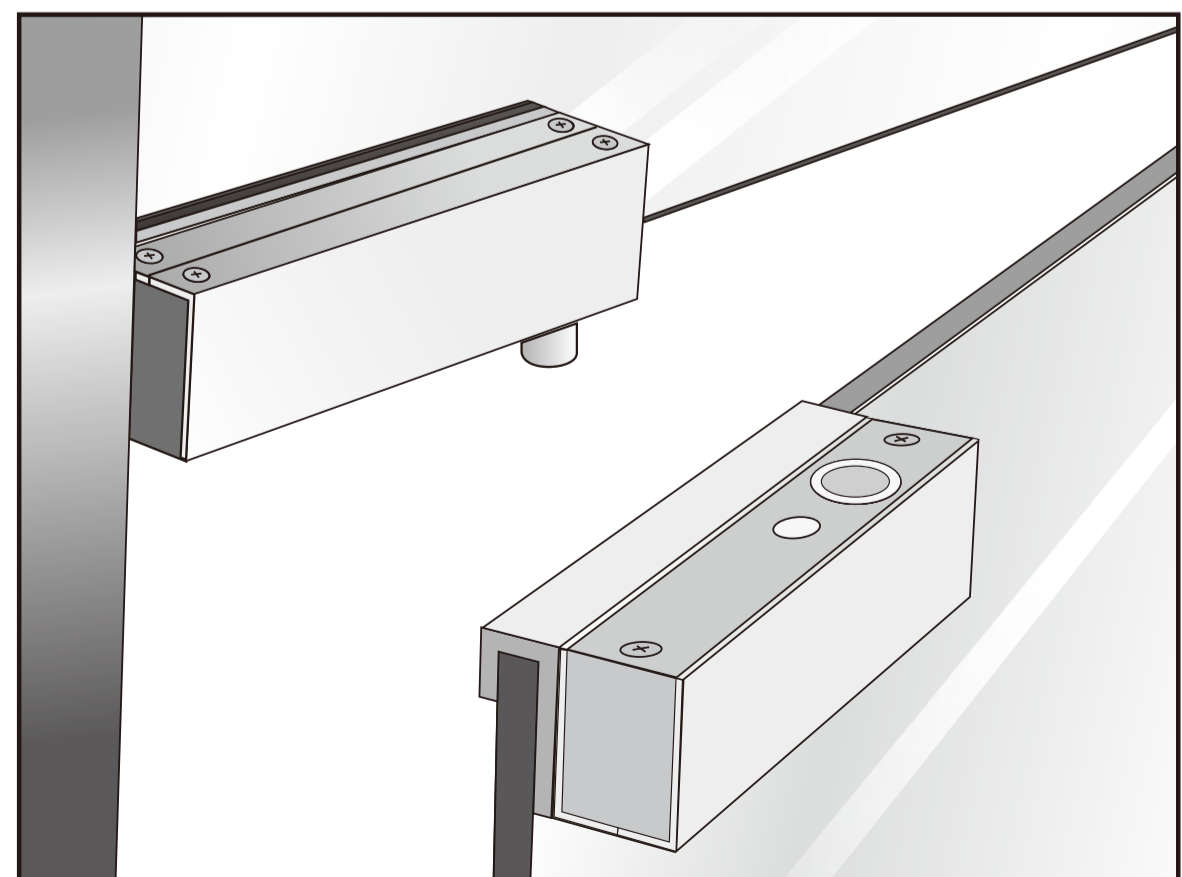


## Installation Diagram

### Surface Mount (Narrow Frame)



### Mount on frameless glass doors / glass walls



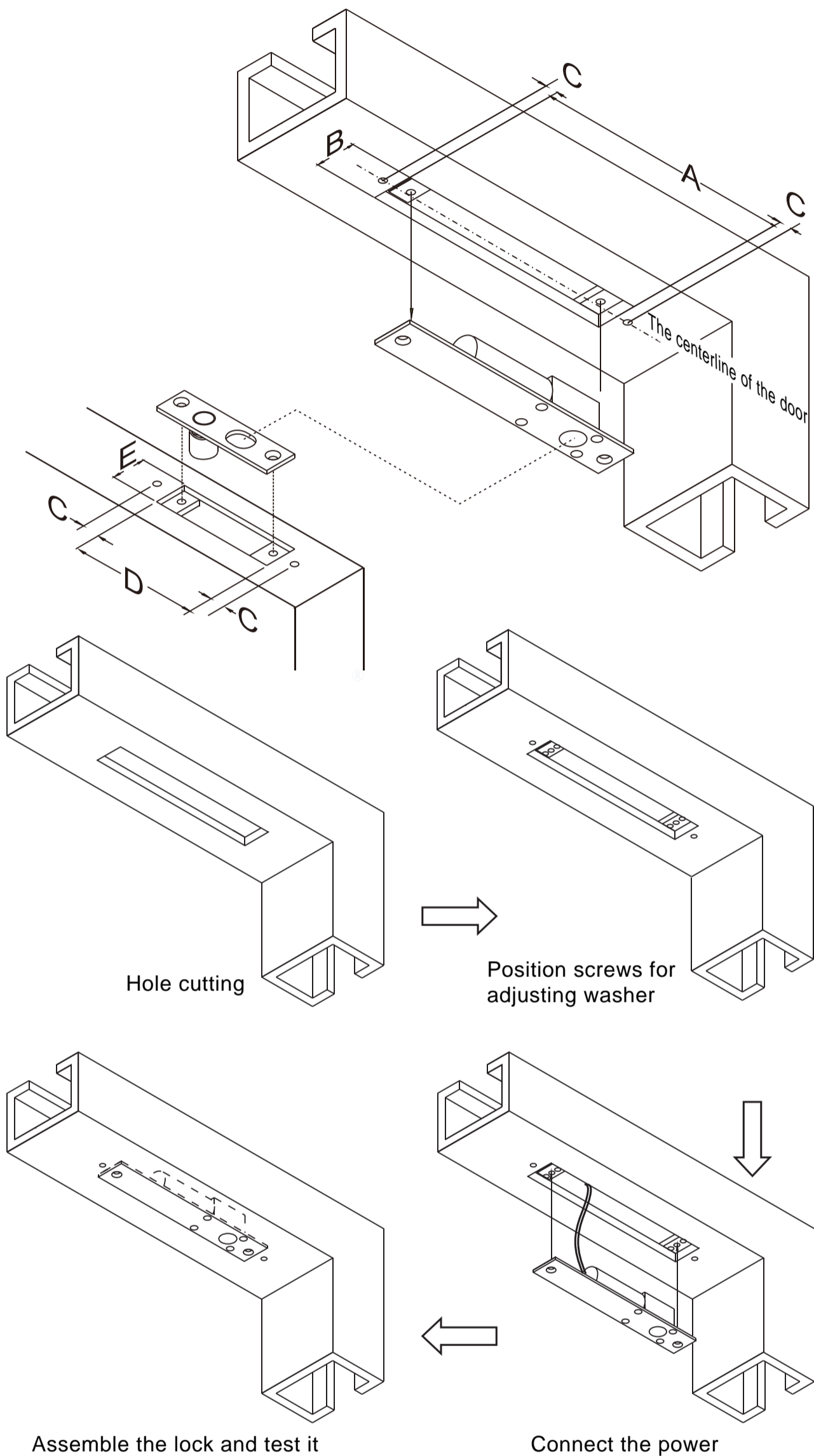


# Installation Instruction

## Mortise Mount – Hollow Metal Door Frame

Please refer to the particular pattern template for each specific cutting size and the location to drill the screw holes.

	A	B	C	D	E
<b>3850</b>	204	33(or 39)	40	101	26



## General Installation Instructions:

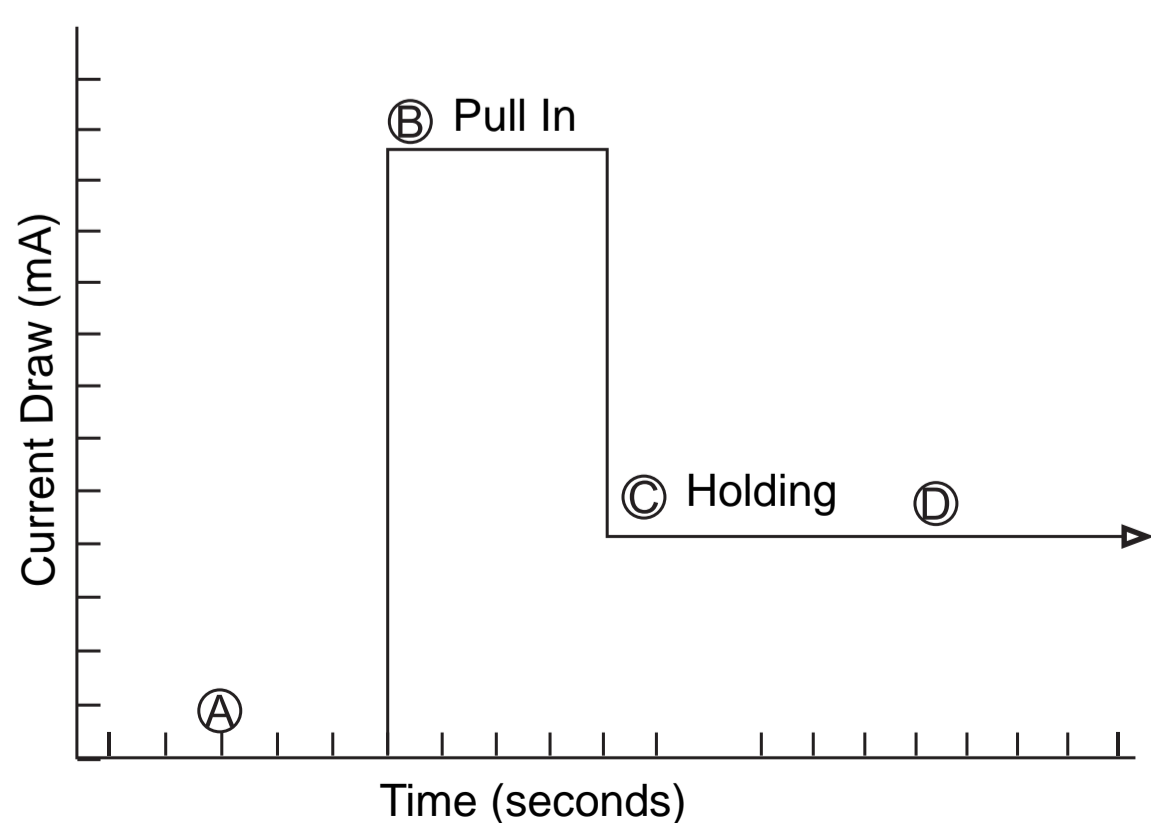
Ensure the width and depth of the door frame, door leaf (hollow metal door) are enough to install the lock body. Also check if it is possible to place the wires inside the door frame. Ensure the double action door swings back to correct position after use to make sure the electric dropbolt locks up quickly. Therefore the door hinge/ automatic door operator of the double action door is very important.

Check if the regulated power supply or controller can provide the current draw (pull in: 0.9Amp @ 12VDC holding: 0.3Amp @ 12VDC) and that the voltage can be maintained during operation under all circumstances.

## Installation Steps:

1. Test if the automatic door operator of the single swing door could completely close the door by a single swing. Check if the centerline of a double-swing door frame and door leaf is coincided.
2. Mark the center point position of the door frame and the door leaf.
3. Mount the supplied installation template for the electric dropbolt and strike plate to align them to the door and door frame's center point.
4. Ensure installation according to the template supplied. Mark the hole cutting and drilling position. Adjust the relay strike time (time delay setting). (Default setting is 1 second). Supply power, make sure all wirings are correct and tightened to secure the electric dropbolt and strike plate on the door and the door frame.
5. Close the door and check if the lock function works normally. If any of the below situations happens, please find out the causes and begin trouble shooting.
  - A. Electric dropbolt is not working: Check if the wiring is correctly connected and if the magnet is out of sensor range.
  - B. Re-check the previous steps: The latch bolt may be stuck inside the keeper hole or the power is not enough.
6. Note: NEVER lubricate the lock and the latch bolt with lubricating oil (grease). Please install the lock after the interior decoration is finished.
7. Please see page 4 for other trouble shooting details.

## Energy Saving Design



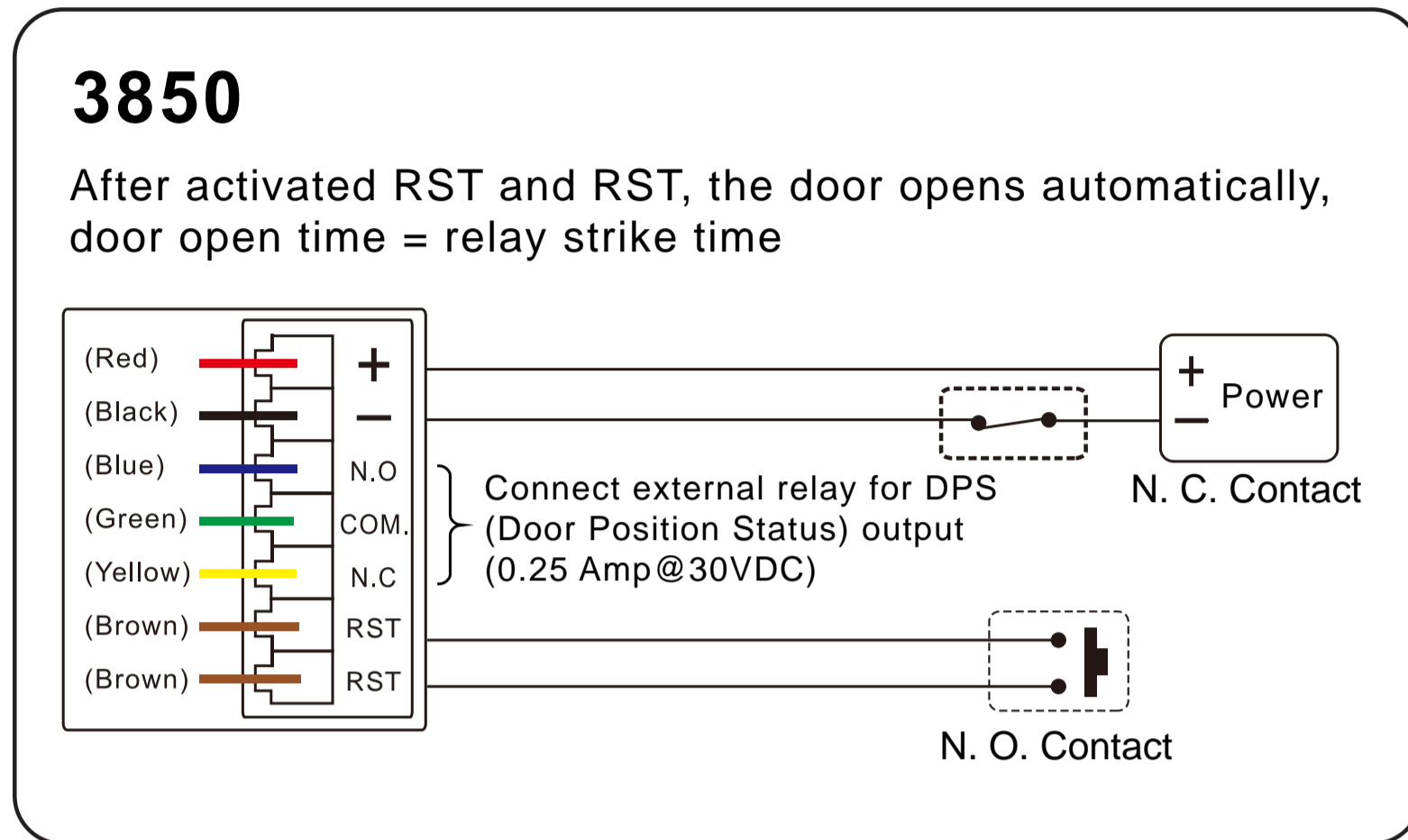
- Ⓐ – Ⓑ Door close time: When the sensor magnet in the strike plate detects the reed in the lock body, the dropbolt projects at once.
- Ⓒ Under the energy saving design, after the dropbolt completely locked, the current draw will drop from high pull in current to low, continuing 'holding force'.
- Ⓓ The reed in the lock body will automatically switch off at the same time when the dropbolt is locked.

# Wiring Diagram

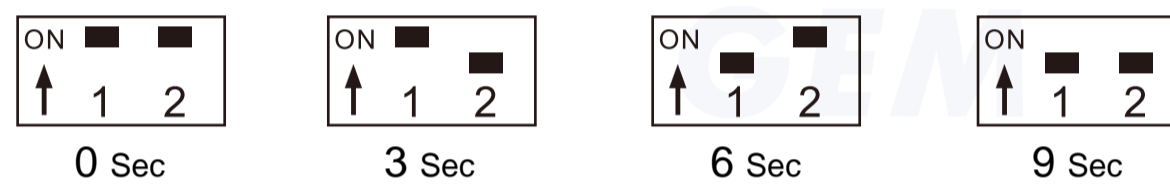
**Caution:**

Make sure that the “+” and “-” wires are connected correctly. Failure to observe polarity will result in a short circuit and is not covered by product warrant.

Note: The relay rating is 3 Amp@30VDC. Please do not connect to external high voltage.



### Relay Strike Time (Time Delay Setting)



# Trouble Shooting

Problem	Possible Cause	Solution
Dropbolt does not activate when the door closes.	The gap between the strike plate and the electric dropbolt lock is far.	Adjust the distance between the reed in the lock body and the sensor magnet in the strike plate within 5 mm.
	No voltage or low in voltage.	Make sure the output voltage and the current are large enough to pull in 0.9A current draw.
The dropbolt keeps the projecting motion.	The dropbolt is not locked properly.	1. Adjust the door closer or the door hinge for the door leaf to close in the correct position.
		2. If solution 1. cannot work, it is recommended to change the double action door to single action door.
The dropbolt cannot retract.	Strike plate misaligned.	1. Release or sway the door to release the latch bolt to open the door.
		2. If solution 1. cannot work, it is recommended to change the double action door to single action door.