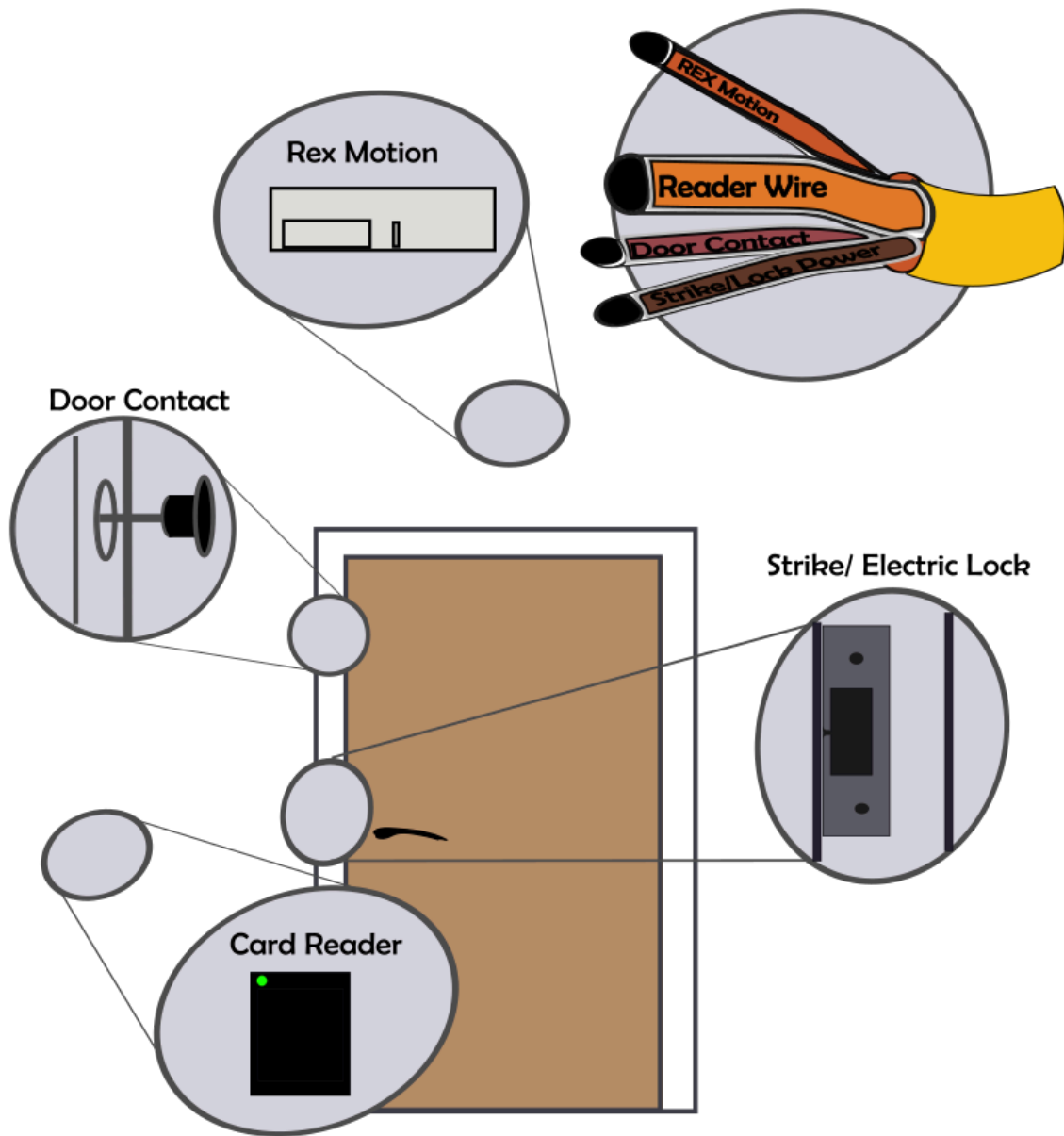




# Access Control Device Installation



## Step-by-Step Wiring Guide:

### ① Plan the Cable Path:

- Identify the best route to run cables from the control panel to the door.
- For running cable through walls utilize a stud-finder to locate potential blockages in your path.
- Avoid high-interference areas like power conduits.

### ② Run the Structured Cabling (Shielded Cable):

- Utilize the **Strike** cut in or drill a hole through the door frame which you will place your **door contact** later. (if necessary).
- Drop your wire down the desired stud bay. In the case of heavy insulation utilize a **Fish Tape** or **Glow Rod**
- Gently pull the desired wire out through the desired device hole.
- Secure the cable. (avoiding damage to insulation).

### ③ Connect to Door Hardware:

- **Card Reader:** Terminate the cable into the reader per manufacturer wiring color codes.
- **Electric Strike:** Connect power and data cables according to specifications.
- **Request-to-Exit (REX) Sensor:** If required, wire it back to the access control panel.

### ④ Terminate at the Control Panel/Switch:

- Follow industry-standard wiring terminations (BICSI).
- Test connections with a continuity tester.

### ⑤ Label and Secure Everything:

- Use structured cabling labels to identify cables at both ends.
- Secure excess cable neatly in the panel.

# Step-by-Step Installation Guide

## 1 Installing the REX (Request-to-Exit) Motion Sensor

The **REX motion sensor** allows users to exit without manually unlocking the door.

### Steps:

#### 1. Mount the REX Sensor:

- Install it **above the door** (centered, about **6-8 inches from the frame**).
- Ensure the motion detection area covers the door exit zone.

#### 2. Wire the REX to the Access Control Panel:

- **Power:** Connect **12V or 24V DC** (depending on the device specifications).
- **Normally Open (NO) or Normally Closed (NC) Contacts:**
  - If set to **NO**: The circuit is **closed** when motion is detected.
  - If set to **NC**: The circuit is **open** when motion is detected.
- **Connect the wiring to the access control panel REX input.**

#### 3. Test the Motion Sensor:

- Walk under the sensor to confirm it unlocks the door when motion is detected.
- Adjust sensitivity if needed.

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## 2 Installing the Door Contact Sensor

A **door contact sensor** detects when the door is open or closed.

### Steps:

### 1. Mount the Contact Sensor:

- Utilize a **Hole Saw bit**, (check device for size specifications) and drill the desired spot on the door frame.
- Attach the **fixed part** to the door frame.
- Align to your Fixed device on the door and mark the center.
- Utilizing a **Spade bit**
- Attach the **moving part** to the door, ensuring alignment.
- Ensure secure installation.

### 2. Wire the Door Contact Sensor to the Control Panel:

- **Normally Closed (NC) Wiring:** Most access control systems expect an NC circuit. (Test for **Continuity** with **Multimeter**)
- **Two-Wire Connection:** Connect to the designated "door monitor" or "door contact" terminals.

### 3. Test the Contact Sensor:

- Open and close the door while monitoring the **Access control system**.
- Verify the system registers door status changes correctly.

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## 3 Installing the Electric Strike

The **Electric Strike** controls the locking mechanism based on access permissions.

### Steps for Electric Strike:

#### 1. Prepare the Door Frame:

- Remove the existing strike plate/ Cut door frame to device specific .
- Align and install the **electric strike plate** in its place.
- Ensure the latch engages smoothly.

## 2. Wire the Electric Strike:

- **Power (12V or 24V DC):** Connect to a dedicated power supply.
- **Control Wiring:**
  - **Fail-Secure (Default Locked):** Unlocks when power is **applied**.
  - **Fail-Safe (Default Unlocked):** Locks when power is **cut off**.
- **Connect to the access control panel's relay output** (relay mode may be NO or NC).

## 3. Test the Strike:

- Swipe a valid card or use the system software to activate the lock.
- Ensure the door unlocks properly.



## 4 Installing the Card Reader

A **card reader** allows users to unlock the door using an access credential.

### Steps:

#### 1. Mount the Card Reader:

- Install at a comfortable height (~**48 inches from the ground**).
- Utilize a Level to determine desired positioning
- Secure with screws or an adhesive mounting plate.

#### 2. Wire the Card Reader to the Access Control Panel:

- **Power (12V DC or PoE):** Check manufacturer specs.
- **Wiegand / RS485 Wiring:**
  - **D0 (Green) & D1 (White)** → Connect to the controller's **D0/D1 input**.

- **Ground (Black) & Power (Red)** → Connect to the power supply.
- Some systems also have an **LED or buzzer control wire** for status indicators.

### 3. **Enroll Test Cards & Test Reader:**

- Register test cards/fobs in the access control system.
- Swipe a test card and verify the system logs access.