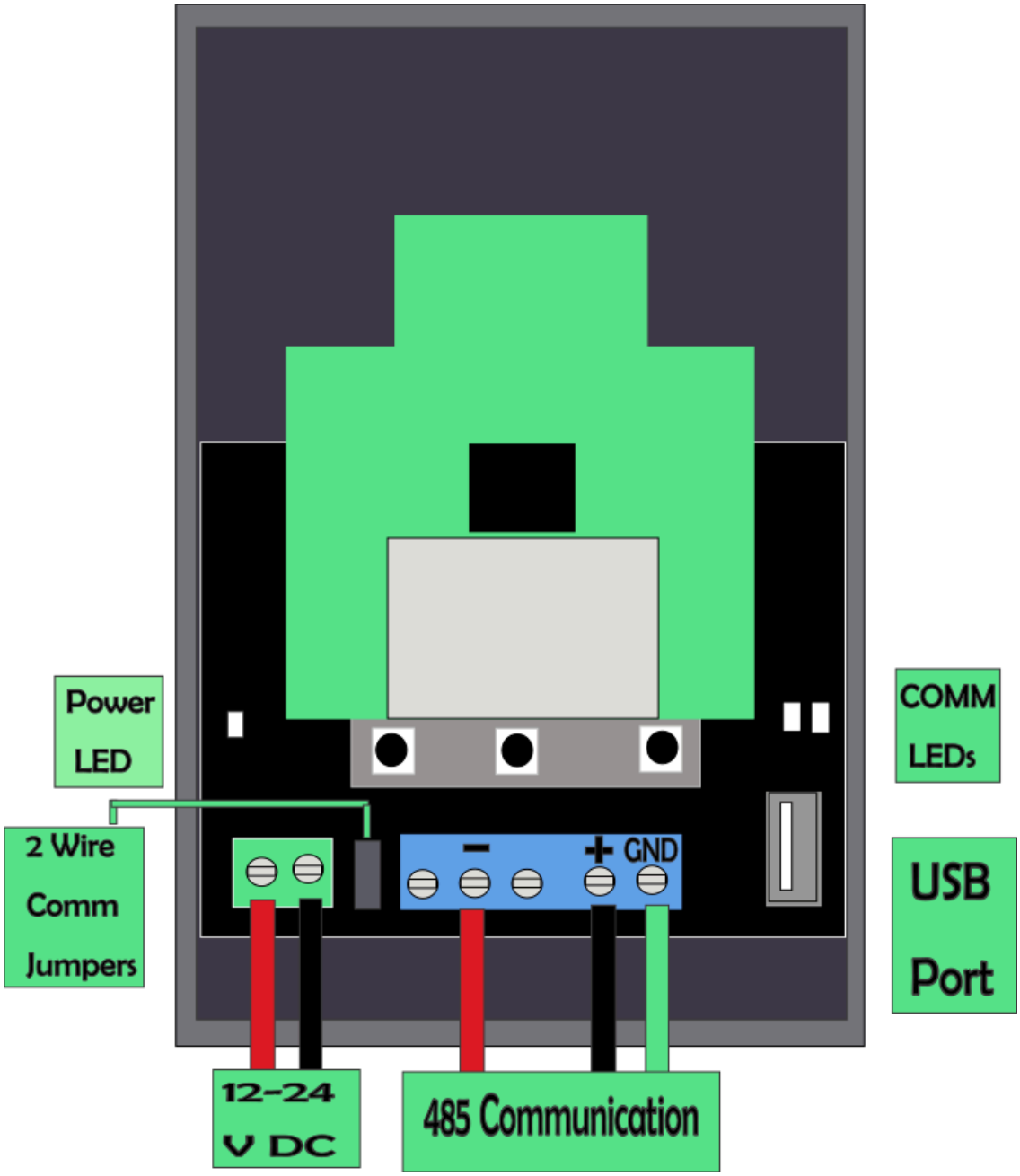
PIM Configuration



Schlage PIM400-485 Wiring and Setup Tutorial (With PIDion Software Configuration)

This guide explains how to properly wire and configure a **Schlage PIM400-485**, which is used to communicate wirelessly with AD Series or NDE locks through a Mercury-based access control system.

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1. Materials Needed

- Schlage PIM400-485 module
- Mercury controller (e.g., LNL-1502, MR52, etc.)
- Twisted shielded RS-485 cable (Belden 3105A or equivalent)
- Regulated 12–24VDC power supply
- Wireless Schlage AD or NDE series locks
- 120-ohm termination resistor
- Laptop with Schlage **PIM Configuration Utility or PIDion Tool**
- USB-to-serial adapter (if needed)
- Basic installation tools

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2. Power Connections

Wire the PIM to a 12–24VDC regulated power source:

- **+ Terminal** = Positive voltage
- **– Terminal** = Ground

Do not attempt to power the PIM from the Mercury panel unless specifically designed for that purpose.

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3. RS-485 Communication Wiring

Important: RS-485 Polarity Reversal on First PIM

When wiring from the Mercury panel to the first PIM400-485:

- **Mercury 485+ → PIM TDA-**
- **Mercury 485- → PIM TDB+**

This reversal is required due to the internal RS-485 design of Schlage PIMs.

For All Additional PIMs:

- Continue standard wiring: **TDA- to TDA-**, **TDB+ to TDB+**

Ensure daisy-chaining is clean and continuous.

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4. RS-485 Termination

If the PIM400-485 is the last device on the RS-485 chain, add a **120-ohm resistor** across A and B.
Some Mercury panels may require a termination resistor on their end as well.

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5. Addressing the PIM (via PIDion Tool)

Since this model does **not use DIP switches**, all device setup is done via **Schlage PIDion Configuration Utility**:

1. Connect your PC to the PIM via USB or serial connection.
2. Open the PIDion tool (typically provided by Allegion).
3. Detect the PIM and assign a **unique RS-485 address**.
4. Configure baud rate and communication mode if needed.
5. Save settings and reboot the PIM.

Each PIM must have a unique RS-485 address on the same bus.

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6. Lock Pairing Process

1. Set the PIM to **learn mode** using the software or physical pairing procedure.
2. Trigger pairing at the lock (via keypad, credential, or button press).
3. Observe status LEDs to confirm communication.
4. Enroll the wireless lock in the access control system (Lenel OnGuard, RS2, etc.).

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7. LED Indicators on the PIM

- **PWR** – Power status
- **COMM** – RS-485 bus activity
- **RF** – Wireless lock communication
- **STATUS** – Mode indicator (pairing, active, fault, etc.)

Refer to Schlage documentation for LED code meanings during troubleshooting.

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8. Final Setup Checklist

- Regulated 12–24VDC power connected
- RS-485 A/B reversed at first PIM only
- Proper RS-485 daisy chain maintained for additional PIMs
- 120-ohm termination resistor at end of line
- Unique RS-485 address set via PIDion software
- Wireless lock successfully paired and visible in control software