

Using PoE (Power over Ethernet) to power the PLC "brain." You only need the Ethernet cable and a strong 12V 5A industrial power supply for the locks.

1. PLC "Brain" Power (PoE)

- Connect the Ethernet cable from your PoE Network Switch directly into the **ETH** port. The status LEDs will light up. The system is now alive.

2. Lock Circuit Power Loop (Red Wires)

- Use your standalone 12V 5A power supply.
- Connect a wire from the Power Supply **Positive (+)** \rightarrow **Channel 1 Middle (COM)** terminal.
- *Now power is waiting at the COM switch.*

3. Lock Load Connection (Red Wire)

- Connect the **Red wire (+)** of your Magnetic Lock \rightarrow **Channel 1 Right (NC)** terminal.
- *Because it's "Normally Closed," power will flow through here by default.*

4. Lock Return Connection (Black Wire)

- Connect the **Black wire (-)** of your Magnetic Lock **directly** back to the **Negative (-)** terminal of your 12V Power Supply.
- *Do not put this wire through the PLC.*

Technician Logic Check:

- **Default state:** Relay is **OFF**. The path from COM to NC is closed. Power flows to the magnet. **Door is LOCKED.**
- **Software state:** You send a "Relay 1 ON" command. The PLC breaks the internal bridge from COM to NC. Power cuts off. **Door is UNLOCKED.**