![WeVend logo]

PayPro

Payment Terminal

Interfacing with a Carwash Relay

$12.50

TAP or INSERT

POWERED BY

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Introduction

This manual provides the necessary steps for setting up and operating a load by activating a Relay using the terminal as the payment system. The system uses a relay to control the power to various loads, such as pumps, lights, or other devices, in a carwash setup. Please read this manual carefully to ensure correct installation and usage.

Package Contents

- 1 x PayPro Terminal
- 1x DC Jack Cable to power terminal from a DC source
- 1x Car Wash Relay Module
- 1x Antenna
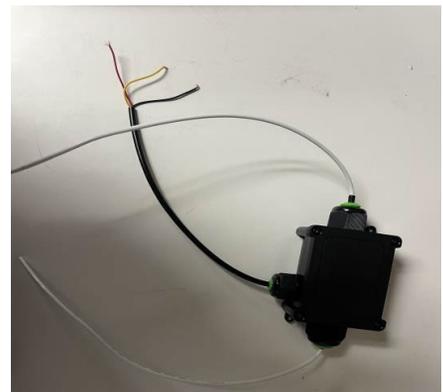- 1x Backplate and 4 screws
- 1x Relay box
- 1x Coin Pulse Cable

DC Jack Cable

Antenna

PayPro Terminal

Coin Pulse Cable

Relay Box Module

Safety Precautions

- Ensure that all connections are made securely before powering up the system to avoid short circuits or electrical damage.

- Double-check the voltage and current ratings of the components before connecting them to ensure compatibility.

- Always disconnect power before making or adjusting any connections to avoid electrical shock or damage.

Device Connection Setup

1. Connecting the Coin Pulse cable

- **Objective:** Establish control signals between the terminal and the relay.

- **Action:**

    1. Connect the Coin Pulse cable to the third port (the Coin Pulse) on the back of the terminal.

    2. On the other end of the cable, attach the red wire coming from the Out/Ground side to the signal pin on the relay. This wire will send control signals to trigger the relay and connect the black wire to the DC- of the relay.

2. Terminal and Relay Powering

- **Objective:** Provide power to the terminal and the coil of the relay.

- **Action:**

    1. Connect the DC Jack cable to the MDB Port on the back of the terminal to provide power to the terminal; the terminal works with DC power source 12VDC, and it will be used to provide coil voltage to the relay as well.

    2. Connect a 12V DC power to the relay:

        - VDC+ (Positive Terminal) Connect the positive terminal of the 12V DC power supply.

        - VDC- (Negative Terminal) Connect the negative terminal of the 12V DC power supply.

Note: The relay coil voltage and the terminal should be in parallel, at 12VDC. If you have 120VAC or 24VAC you need to use a converter to 12VDC.

Note: The relay can handle power up to 30 AMPS at 120 VAC, so your load cannot exceed this.

Device Connection Setup

3. Load Powering

- **Objective:** Power the load (e.g. pump, motor, or lights) using the relay.

- **Action:**

    1. Connect the negative terminal of the power supply (usually AC) to the NO (Normally Open) pin on the relay.

    2. Connect the COM (Common) pin on the relay to the negative terminal of the load.

   3. Connect the hot side of the voltage AC source to your load directly.
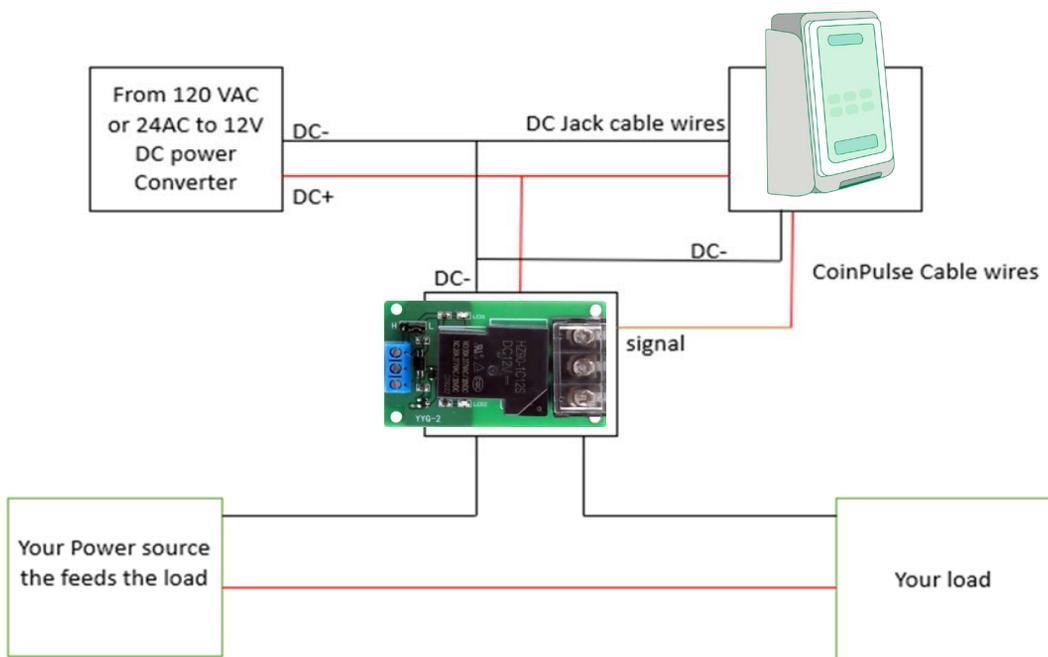
Connection Diagram of the system

Note: The Terminal accepts DC voltages from 9VDC to 45VDC, therefore, it can be powered from 12VDC with the Relay in parallel. The DC source should be able to provide 2A at least. Most carwashes have 24VAC available or a power converter is required.
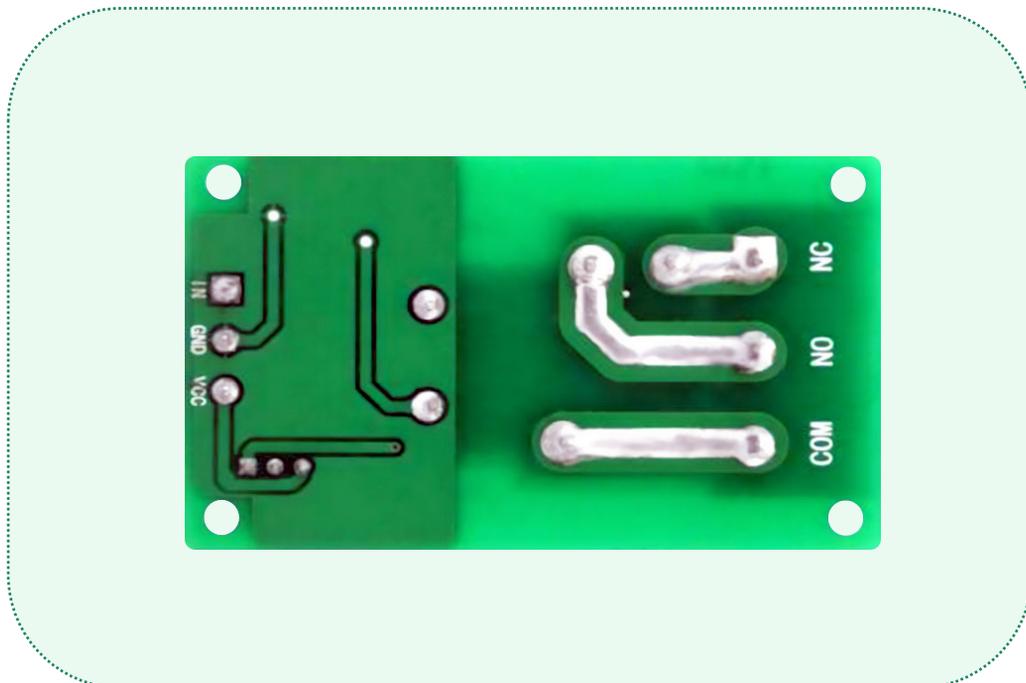
Note: Not all types of relays are supported. Only relays that are activated by low level signal are supported.

Note: The antenna should be connected to the main port of the terminal to boost the LTE signal.

The Relay Module

High/Low Level Trigger*

Power Indicator

H — L

DC+

DC-

IN

COM

NO

NC

Work Indicator

YYG-2
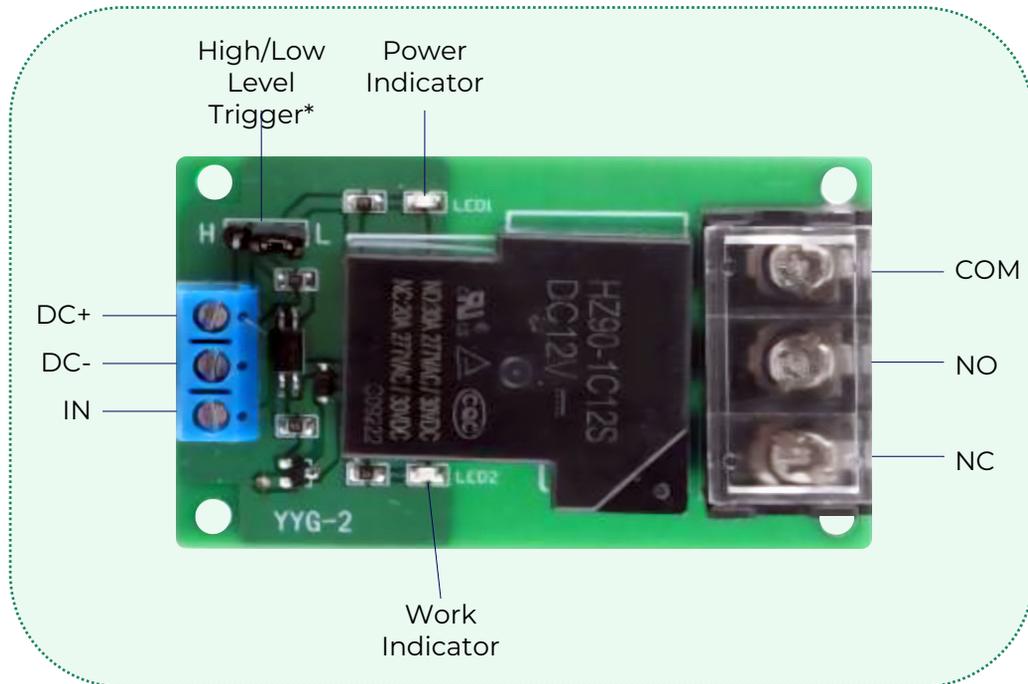
The Relay Module – Front Side

IN

GND

VCC

NC

NO

COM

The Relay Module – Back Side

Note: The relay should be on the **Low Level** trigger

The Relay Module – Interface Description

The Relay Module has the following interface pins:

- **DC+**
  Positive terminal of the external DC power supply (12V DC). Connect this to the positive side of your DC power source.

- **DC-**
  Negative terminal of the external DC power supply. Connect this to the negative side of your DC power source.

- **IN (Signal Input)**
  This pin receives the control signal from the Coin Pulse Cable, which triggers the relay to switch states.

- **NO (Normally Open)**
  This is the Normally Open contact of the relay. The relay remains "open" (no connection) until it is triggered. Once triggered, it closes and connects to the COM pin.

- **COM (Common)**
  This is the common contact of the relay. It is used as the reference pin to either connect to the NO (Normally Open) or NC (Normally Closed) pin, depending on the relay's state.

- **NC (Normally Closed)**
  This is the Normally Closed contact of the relay. The relay remains "closed" (connected to COM) before it is triggered. When the relay is triggered, this contact opens and disconnects from COM, and the NO pin is activated instead.

The Relay Module - Wiring

The wiring of the Relay Box Module is as follows

- *Red Wire* - Positive connect it to the 12V DC positive terminal

- *Black Wire* - Connect this to the negative side of your 12V DC power source, also to the black wire of the Coin Pulse cable

- *Yellow Wire* - This is the signal wire that connects it to the red wire coming from the Coin pulse cable

- *Two Black Wires* - They are the high voltage side of the relay, connect one of them to your source of power, and the other one to your load
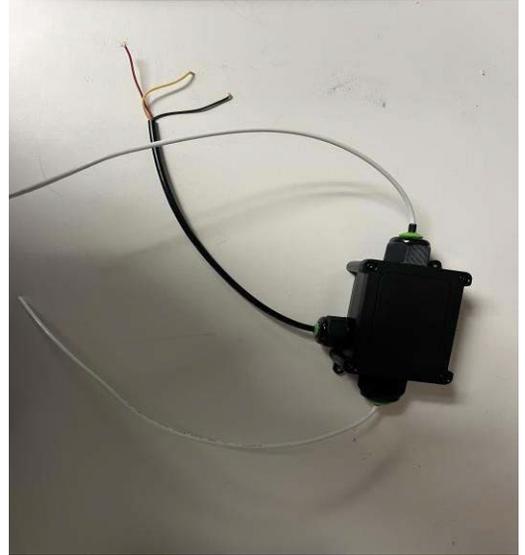
Relay Module

Operation Overview

- *Activate the Relay*
  When the control signal from the Coin Pulse Converter is received at the IN pin, the relay is triggered, closing the circuit between the COM and NO pins, allowing power to flow to the connected load.

- *Control via Rotary Switch*
  Use the rotary switch to adjust the load settings or select the desired circuit configuration, allowing you to control the power distribution to various devices in your carwash setup.

Troubleshooting

Relay not triggering

Ensure that the control cable is properly connected, and the Coin Pulse Converter is correctly communicating with the relay.

Load not powering on

Check the connection between the relay's NO pin and the load. Make sure the power supply is correctly connected. Make sure the ground wire of the 12VDC source as well as the black wire of the control signal are both connected to the VDC- terminal of the relay.

Inconsistent operation

Verify that the rotary switch is set to the correct position and ensure that the power supply is stable. In case you are using a rotary switch and have many loads.