MJS-USB-IO-1

USB PC 4 Input / 4 Relay Interface

Installation Instructions

DISCLAMERS:

- *All products are tested and verified 99.9% before shipping.*
- *While every care has been taken to provide a quality product, we cannot guarantee the product to function correctly if installation is not done according to the instructions in this guide.*
- *We are not liable for misuse of this product. Misuse includes improper installation.*
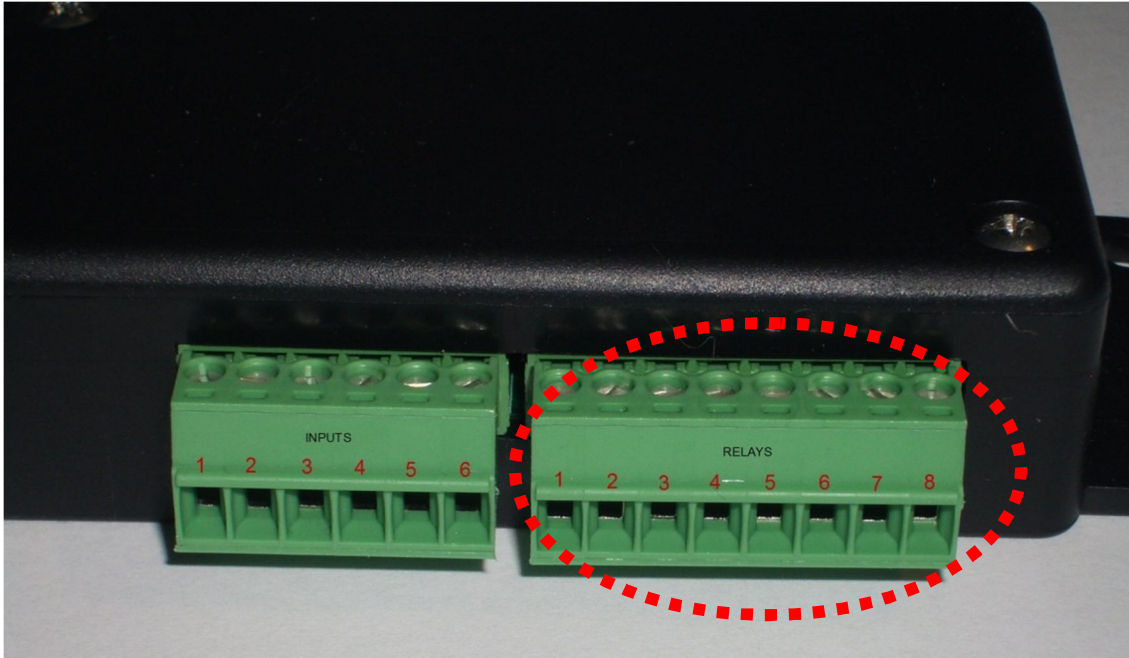- *Limited Lifetime repair warranty.*

ITEMS INCLUDED:

1. **MJS-USB-IO-1 Interface box.**
2. **6 foot A to Mini-B USB cable.**
3. **8 position connector.**
4. **6 position connector.**
5. **Mini-CD with USB Drivers and free software.**

Note: All connectors come with their elevator clamps up; turn the screws counterclockwise to lower them to allow insertion of wires.

USB-IO-1 Wiring Guidelines - Relays

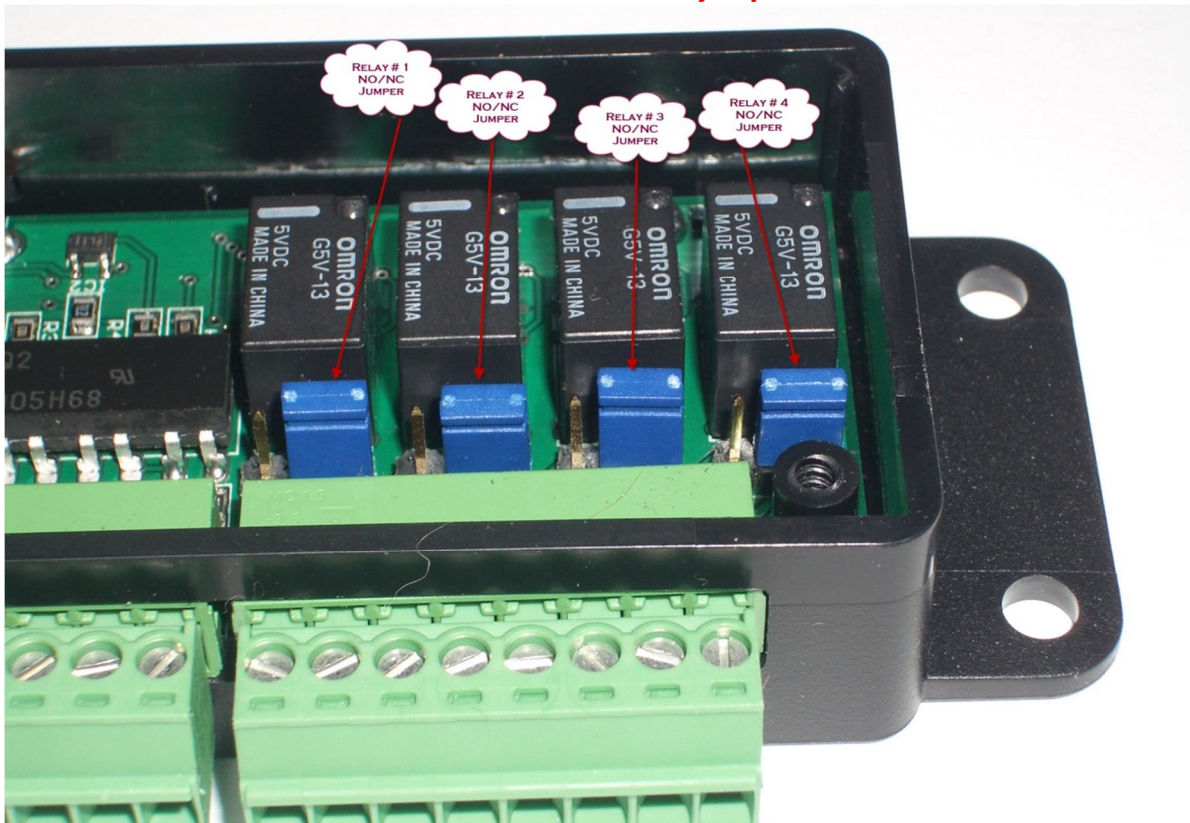## Relay Connector (8 positions):
(Left to right)

1 Amp max

1. **Relay #1 – Common**
2. **Relay #1 – Output (NO/NC)**
3. **Relay #2 – Common**
4. **Relay #2 – Output (NO/NC)**
5. **Relay #3 – Common**
6. **Relay #3 – Output (NO/NC)**
7. **Relay #4 – Common**
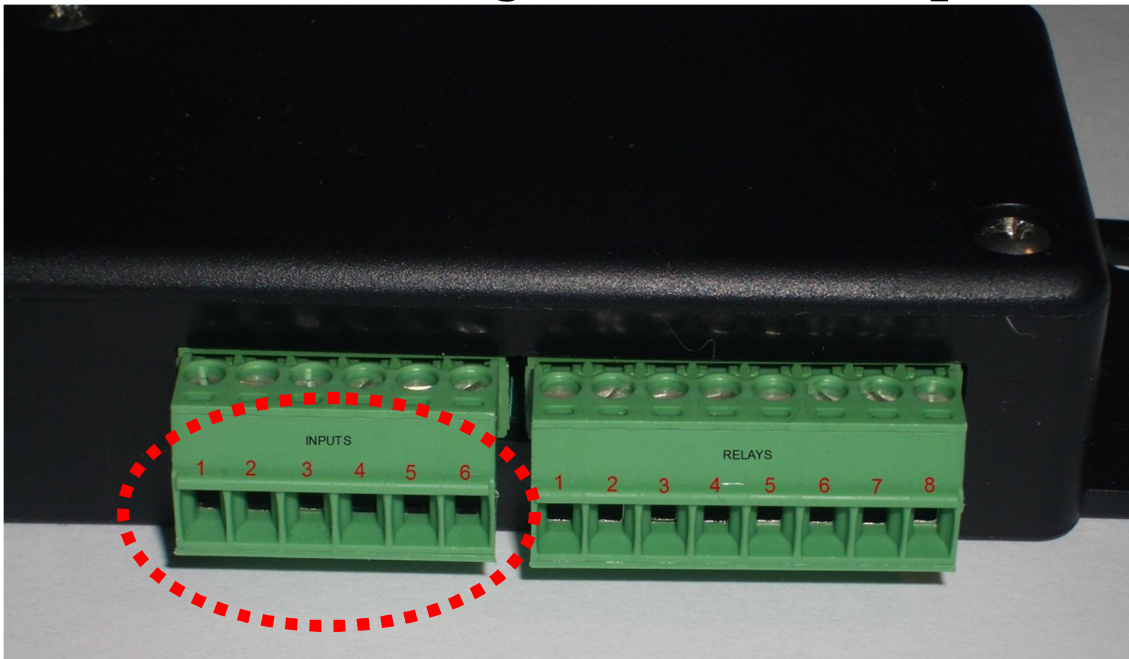8. **Relay #4 – Output (NO/NC)**

USB-IO-1 Wiring Guidelines – Relays (continued)

Located inside the box are 4 jumpers, one for each relay
this allows a change of Normally-Open to Normally-Closed for each relay.
Just move the relay's jumper from position 1-2 to 2-3 for NC.
DEFAULT IS Normally-Open

USB-IO-1 Wiring Guidelines - Inputs

Input Connector (6 positions):
(Left to right)

Optocoupler- isolated (see note)

1. **Input #1 - Voltage Input (5 – 30v)**
2. **Input #1 & Input #2 – Ground(common)**
3. **Input #2 - Voltage Input (5 – 30v)**

   ----

4. **Input #3 - Voltage Input (5 – 30v)**
5. **Input #3 - & Input #4 – Ground(common)**
6. **Input #4 - Voltage Input (5 – 30v)**

Notes: Input #1 & #2 share a common ground;
Input #3 & #4 share a common ground;
therefore if you need 100% isolation use only 1 input of each group.
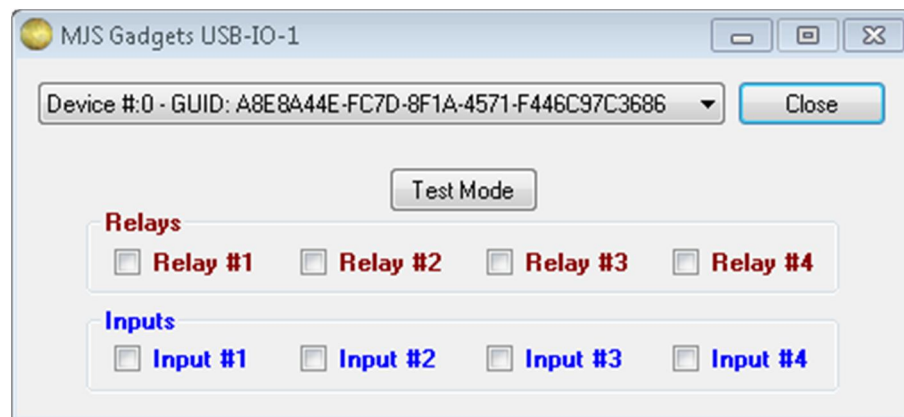*In most cases isolation isn't even needed at all.*

Connection to PC

Connect the supplied USB cable to the USB Jack on the USB-IO-1 then connect to available USB port on PC.
NO DRIVERS ARE NEEDED, this is a USB HID Device, native support in Windows.

Run the program
USB-IO-1 Test Application (MJS Gadgets USB-IO-1.exe)

In the combo box it will list all devices found, click OPEN to use it. Clicking any relay checkbox will turn that relay on. The Inputs checkboxes become checked when input voltage is present. The test mode will turn on a relay for its given input, i.e. input #2 sensed turns on relay #2.

Troubleshooting:

If the USB-IO-1 isn't found - Got it connected?

Car PC Front End Support

- Ride Runner Plug-in
- Centrafuse 3.1 Plug-in

Developer .dll available

Thanks for you purchase and support of MJS Gadgets.

-Mitch