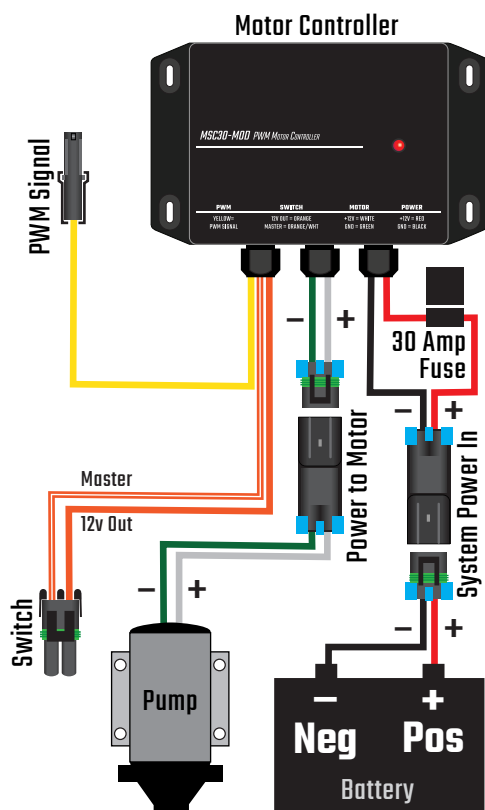


# PWM MOTOR CONTROLLER

12V MOTOR CONTROL UNIT

## MSC30-MOD Motor Controller Wiring Diagram



## INSTALLATION & SETUP INSTRUCTION

- Mount the motor control unit in a location that the power switch can be accessed and the digital display can be seen.
- Connect wiring using description from below:

### A) Connect 2 pin Metri-Pack connector with the **RED** and **BLACK** leads to the battery:

**NOTE:** When extending wires use 12GA wire or recommended power cables from your dealer.

**NOTE:** Do not power the unit from a battery charger.

**NOTE:** Do not hook to power strips or convenience plugs.

### Wiring Color Code to **Battery:**

**12 gauge Red = 12V**

**12 gauge Black = Ground**

**\*\* Ground must be hooked up to BATTERY, NOT to the frame \*\***

### B) Connect 2 pin Metri-Pack connector with the **WHITE** and **GREEN** leads to the 12V motor:

**NOTE:** When extending wires use 12GA wire or recommended power cables from your dealer.

### Wiring Color Code to **Motor:**

**12 gauge White = 12V**

**12 gauge Green = Ground**

**\*\* Ground wire on the pump must be hooked up to the Ground wire from the controller, NOT to the frame \*\***

- Optional power cables and extension cables are available.

### C) Connect the implement switch.

- Disconnect the jumper plug and connect the 3-pin Weather-Pack connector to your implement switch.

- The **solid orange** wire is positive 12V output and the **orange with white stripe** wire is the Master / Signal wire.

- Applying 12V power from an external switch to the **ORANGE SIGNAL WIRE ONLY** can be used as a remote turn on for the unit.

- Optional remote style switches are available.

**NOTE:** If you are not using a remote switch, use the supplied jumper.

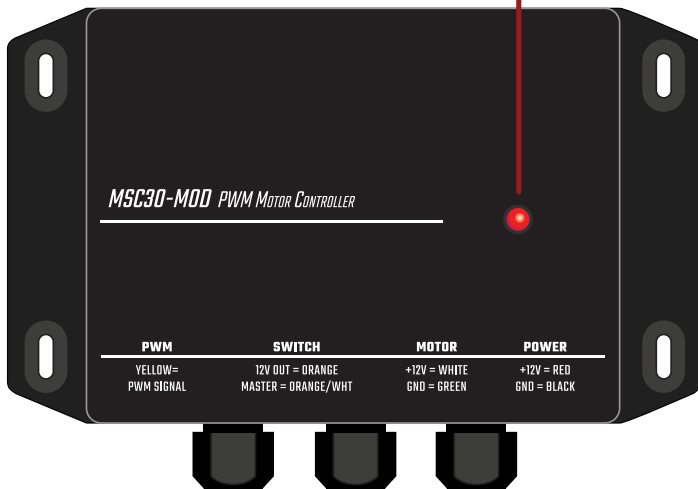
**NOTE:** Supplying power to the +12V wire **WILL CAUSE UNIT DAMAGE.**

**NOTE:** Grounding the +12V or Master wire **WILL CAUSE UNIT DAMAGE.**

### D) Connect the PWM cable.

- Plug the **yellow** PWM signal cable into your PWM controller.

## Power Light



## Operation of the Motor Control

When it is time to check or test your motor control:

- The **Red light** will light up only if the implement switch wires are plugged together or the implement switch is in the on position. This indicates it has correct power.
- Make sure that the remote switch is activated or on.
- The Red light above the power switch will light when power is being supplied to the pump.
- The pressure will automatically be adjusted by the PWM signal from your rate controller.

## Trouble Shooting

### If the unit does not turn on:

- Check if implement wires are plugged in and the implement switch is activated.
- Check PWM wire connections and that the rate controller is telling the system to run.
- Check wiring for bad connections.
- Check wiring for correct polarity of battery connections.
- Check the fuse.

**Note:** If power wires are reversed to the battery it will not damage the control unit or the motor. It may blow the fuse if not hooked up correctly.

**Note:** If the White and Green wires (Pump wires) are connected to the battery the motor control unit **WILL BE DAMAGED**.

### If the pump will not run:

- Check if the red light is on, the remote implement switch is activated, and the PWM controller is also activated.
- Check remote switch.
- Check if PWM signal.
- Check wiring for bad connections.