

# Tuff Tread

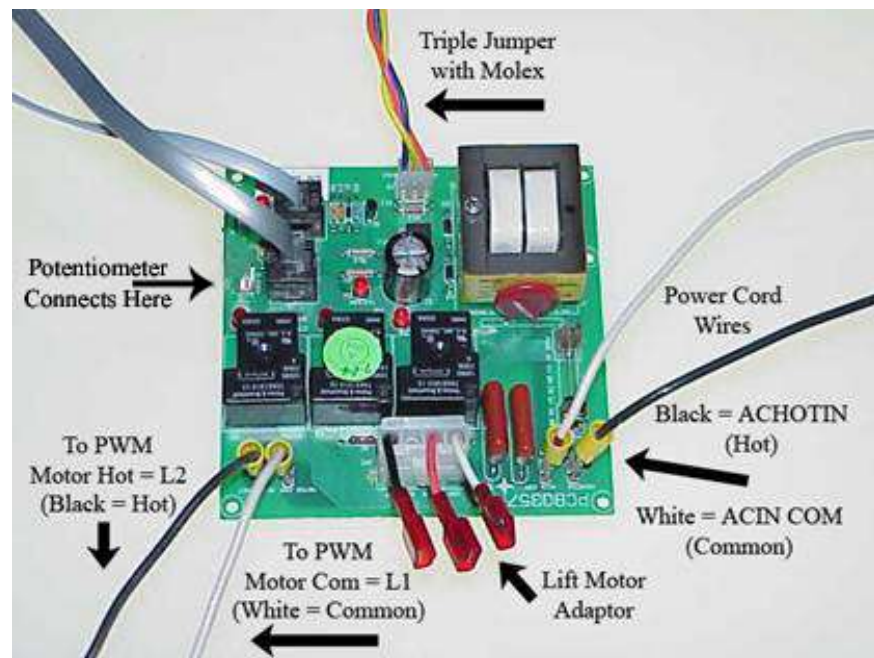
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## Wiring Diagrams for Version 3 Power Supply Upgrade and PWM

**Always be sure the treadmill is turned off and unplugged before attempting any electronic board replacement.**

It is very important that the Power Supply and the PWM boards be wired correctly. If the wires are connected in the wrong way, the Power Supply board or the PWM may be damaged. This damage would not be covered under the defective-part warranty.

### Power Supply Wiring Diagram

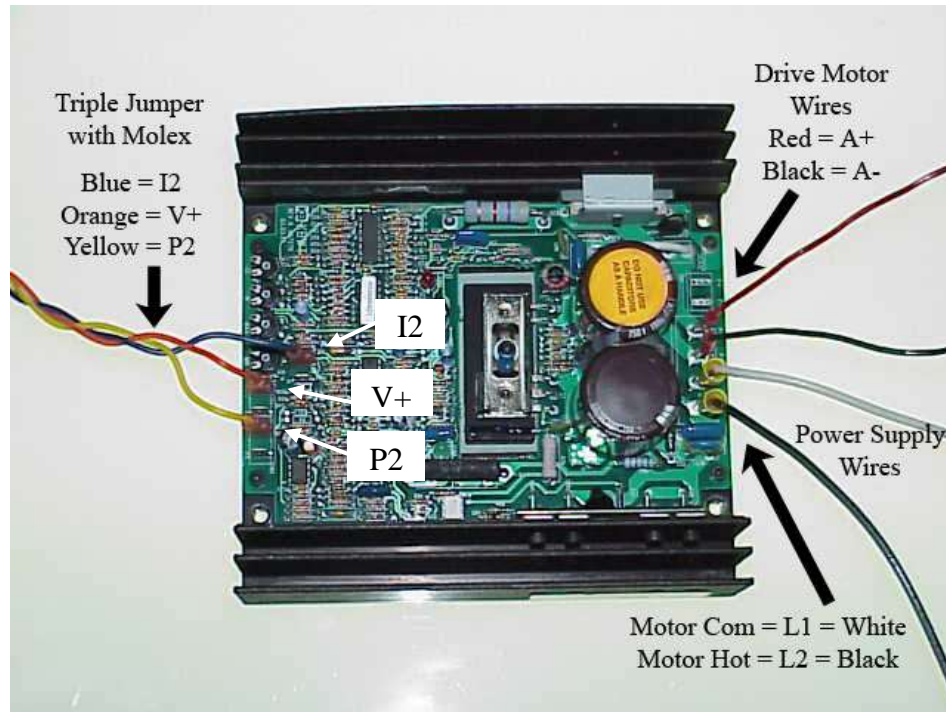


Pay close attention to the Power Cord wires that run from the end of the AC Power Cord to the Power Supply board. The black wire (hot) must be connected to the spade marked ACHOTIN (AC Hot In). The white wire (common) must be connected to the spade marked ACIN COM. If the wires from the Power Cord are connected to the wrong spades on the Power Supply, the board will be permanently damaged.

Also double-check the wires that run from the Power Supply board to the PWM board. Don't just go by the wire color – someone may have switched them in the past. Make sure the wire that is connected to the spade marked MOTOR HOT on the Power Supply board is connected to the spade marked L2 on the PWM, and the wire that is connected to the spade marked MOTOR COM on the Power Supply is connected to the spade marked L1 on the PWM. Incorrect wiring here can damage the boards.

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## PWM (Motor Controller) Wiring Diagram

The wires that run from the drive motor are red and black. The red wire must be connected to the spade marked A+ on the PWM, and the black wire must be connected to the spade marked A-. If these connections are reversed, the motor will run backwards (as will the treadmill belt).

Double check the black and white wires that run from the Power Supply to the PWM board. Don't just go by the wire color – someone may have switched them in the past. Make sure the wire that is connected to the spade marked MOTOR HOT on the Power Supply board is connected to the spade marked L2 on the PWM, and the wire that is connected to the spade marked MOTOR COM on the Power Supply is connected to the spade marked L1 on the PWM

The Triple Jumper wires are blue, orange, and yellow. It is very important that these wires be connected correctly. The blue wire must be connected to the spade marked I2 on the PWM. The orange wire must be connected to the spade marked V+, and the yellow wire must be connected to the spade marked P2. There are several spades in the same area of the PWM and it is easy to get confused. Don't go by "the way the old one looked," and don't just rely on your memory. Check the markings on the PWM itself. If these wires are not connected correctly, the treadmill will run, but it will display symptoms of lift motor failure or display board failure. If you think you have a problem with the lift motor or the display board, check these connections first.