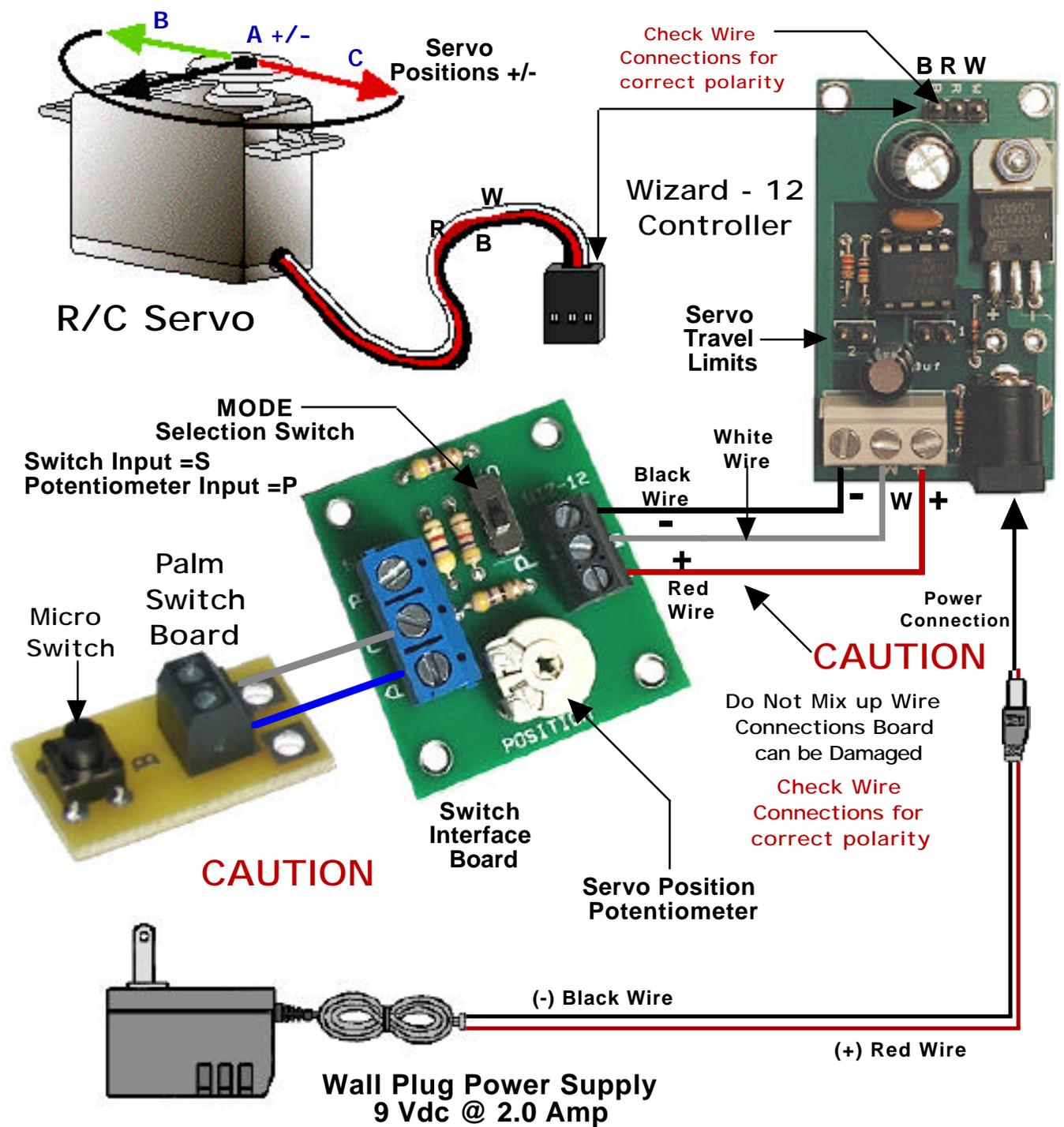


Wizard - 12

Switched Servo Control

Controller
Ver 2.5

Set - Up / Slide Potentiometer Control

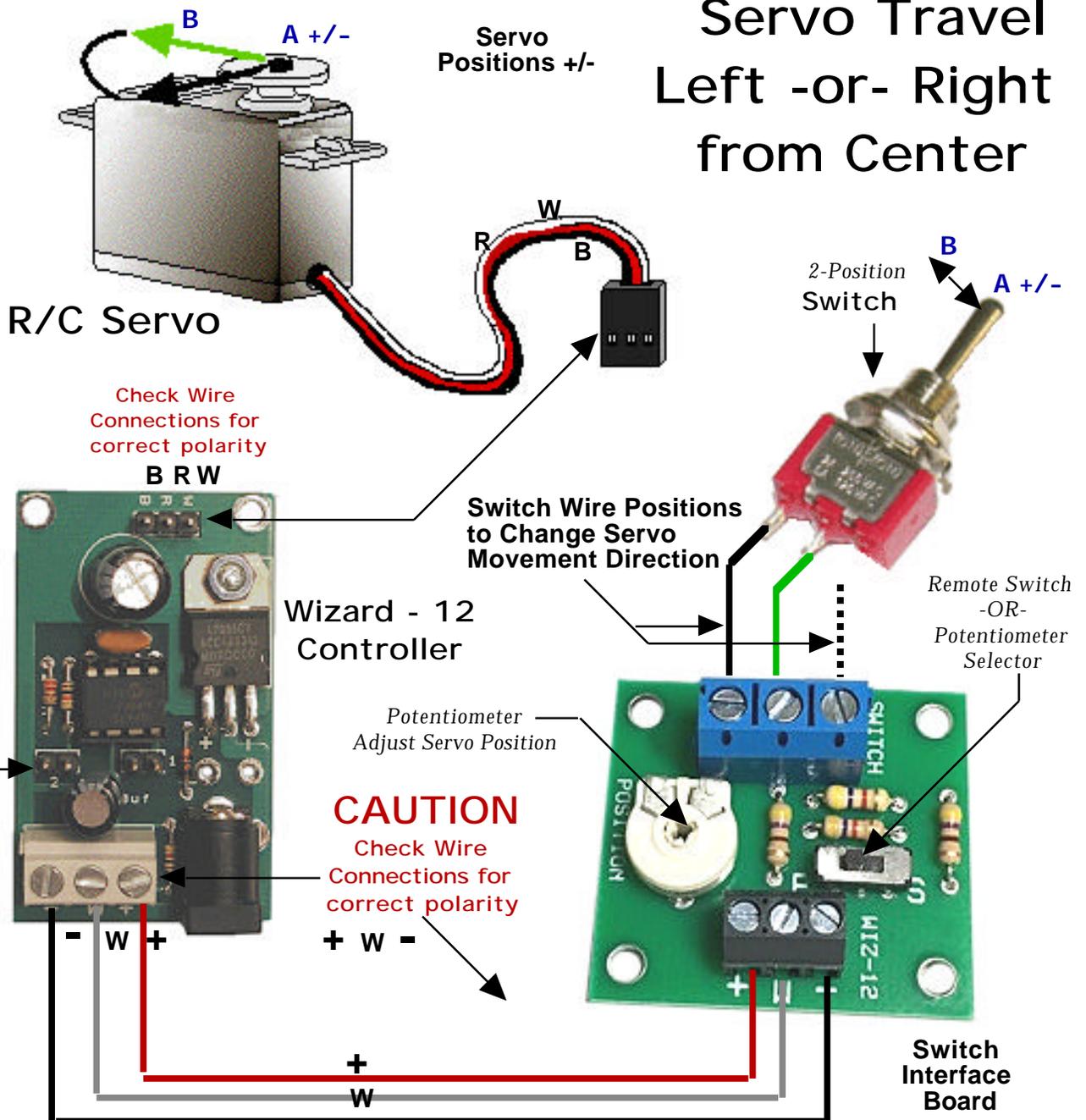


Wizard - 12 Single Servo Controller

Controller
Ver 2.5

Set - Up / Switch Control - 3 Position

Servo Travel Left -or- Right from Center



Wizard - 12 Servo Travel Adjustment

Set - Up / Servo Travel

Switch to Servo Position Calibration - Setup

See Servo Travel Calibration guide on using the Jumper Blocks for setting the Upper and Lower Servo Travel Movements



Analog Servo

Caution
Check Correct Servo Connection

W Servo (S)
R Servo (+)
B Servo (-)

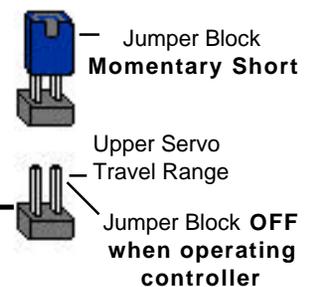
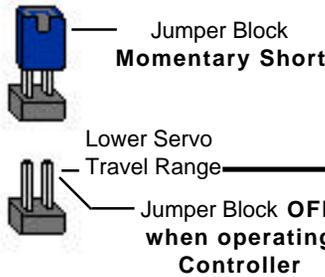
White
Red
Black

R/C Servo Connection

BRW

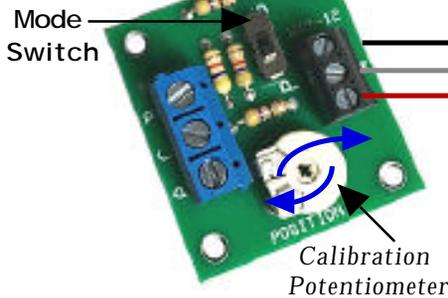
JP2 Configuration

JP1 Configuration

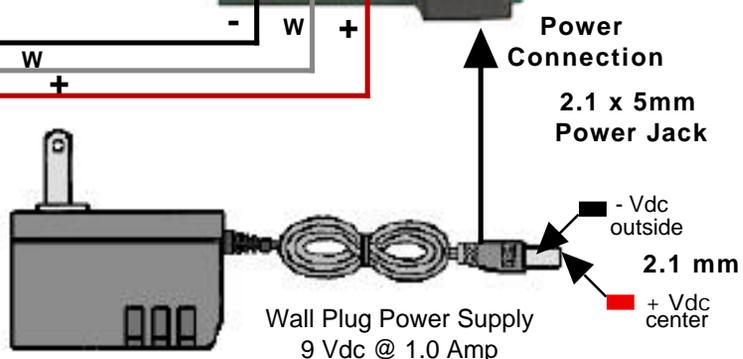


Caution
Do Not Mix up Wire Connections Board can be Damaged

Check Wire Connections for correct polarity



Switch Interface Board (Calibration Option)



Wizard - 12 Servo Travel Adjustment

Servo Travel Calibration

Connect the Switch Interface Board, Palm Switch Board, servo and power supply to the Wizard-12 controller board.

Adjusting the on-board potentiometer will control the position of the attached servo. The full range of the potentiometer and board electronics will generate pulse width equivalent to a 180-degree servo movement. (1ms - 2ms) Some servos will not accommodate this movement range. so take care not to drive the servo into its limit stops at the extreme setting range.

Setting the Servo Movement / Travel Range

Slide the mode switch to the P position for the potentiometer to move the servo output travel position. (Reset the servo limits if you have problems with movements, see reset)

Upper Limit Range:

Adjust the potentiometer and move the servo output travel to the upper range point that you want the servo to stop at. Temporarily short the **JP1** pin pair set by placing the jumper onto the pin pair for a few seconds, then remove the jumper. This will record in memory the upper movement travel range limit. This setting will be retained even after the power is turned off, and will stay in memory until manually reset to a new range.

Lower Limit Range:

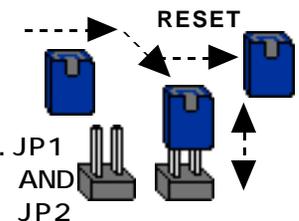
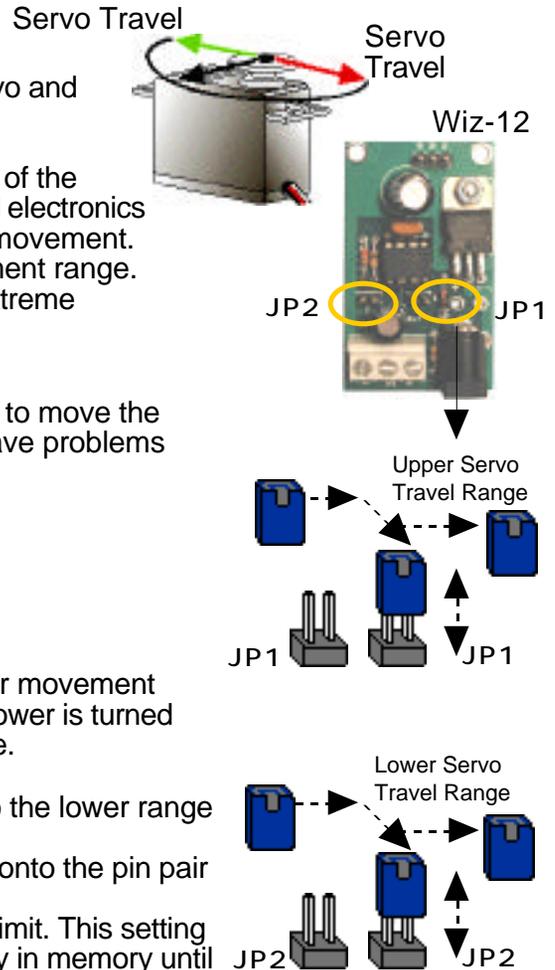
Adjust the potentiometer and move the servo output travel to the lower range point that you want the servo to stop at. Temporarily short the **JP2** pin pair set by placing the jumper onto the pin pair for a few seconds, then remove the jumper. This will record in memory the upper movement travel range limit. This setting will be retained even after the power is turned off, and will stay in memory until manually reset to a new range.

Note: If the servo does not move as the potentiometer is adjusted, it may be that the upper and lower limit travel ranges are overlapping. Try re setting the limits again or **RESET** the limit settings and start again with the servo limits

To RESET the Servo Lower and Upper Travel Limit Ranges:

Rotate the potentiometer to one end point, Temporarily short **JP1** pin pair set, by placing a jumper onto the pin pair for a few seconds, and then remove the jumper. This will reset the servo movement travel limit values recorded in memory to a 0 value allowing the servo to move the full travel range of the servo.

Rotate the potentiometer to the other end point, Temporarily short **JP2** pin pair set by placing a jumper onto the pin pair for a few seconds, and then remove the jumper. This will reset the servo movement travel limit values recorded in memory to a 0 value allowing the servo to move the full travel range of the servo as you rotate the potentiometer to different locations. (Note: some servos move only small travel ranges, as manufactured. For max travel, select a servo that has the desired travel ranges you need)



Wizard - 12 Servo Travel Adjustment Cont.

Note: Always **RESET** the limit settings and start again with the servo limits if new large servo positions movements are to be re-set, or having issues with the controller and servo movements.

Switch Movement:

Slide the mode switch to the S position for the Switch Input to move the servo output travel position. Activate the switch, the servo should move to the set positions. and return to position when the switch is de-activated. If you want the servo to move the opposite direction with the switch activation, reverse the switch to interface wire connections on the palm switch.

Troubleshooting:

Q. I am having trouble getting the servo to move when I adjust the potentiometer.

A1. Reset the Servo Lower and Upper Limit Ranges:

Temporarily short JP1 pin pair set or JP2 pin pair set by placing a jumper onto the pin pair for a few seconds, then remove the jumper.

A2. Check to see that the Switch Interface Board r has been wired correctly to the Wizard-12 control board terminal block. Wires +, - and W. Does the Wizard-12 board have power?

A3. Check to see if the servo is designed to move only a set amount (See servo information specifications from manufacture on servo)

A4. Change the servo; you might have a bad servo.

Q. I am having trouble getting the servo to move the full range of motion before setting the positions

A1. Reset the Servo Lower and Upper Limit Ranges:

Move the onboard potentiometer to position 1, then Temporarily short JP1 pin pair set by placing a jumper onto the pin pair for a few seconds, then remove the jumper.

Move the onboard potentiometer to position 2, then Temporarily short JP2 pin pair set by placing a jumper onto the pin pair for a few seconds, then remove the jumper.

Q. When I move the potentiometer, the servo jumps or does not move smoothly from position to position as I activate the potentiometer left and / or right positions

A1. Reset the Servo Lower and Upper Limit Ranges:

***** MASTER BOARD RESET**

Set the mode switch to the P position.

Resetting the controller board back to original servo position travel points

Move the onboard potentiometer to position 1, then Temporarily short JP1 pin pair set by placing a jumper onto the pin pair for a few seconds, and then remove the jumper.

Move the onboard potentiometer to position 2, then Temporarily short JP2 pin pair set by placing a jumper onto the pin pair for a few seconds, and then remove the jumper.