

Stage 3R Controller Instructions

Controller Setup

Control Board Insertion/Removal

Insert the desired Control Board into the connector on the back of the controller. Ensure the Stage III writing is readable. Place thumbs under the controller by the trigger and push the board down with index fingers. To remove the Control Board, grab by the sides and wiggle up.

Hookup

2-Wire Connection

Normal 2-Wire connections have White (+) and Black (Track) hookups. They are almost always Positive Gate. Connect the White and Black clips to the corresponding color hookups. The POWER LED color is irrelevant with a 2-wire connection.

3-Wire Connection

Normally, ensuring the POWER LED is lit **GREEN** with the Brakes on, and not lit with the Brakes off (car not on the lane), is all that is required. BUT, if the track is not correctly wired, additional testing is required. On a positive gate track the White wire is Positive (+), the Red wire is Negative (-), and the Black wire is connected to the left rail of the track. Below is a chart to assist in hooking up correctly if the colors on the track are incorrect. Before using the chart ensure the power to the track is on, the BRK/CST knob is turned fully CW, 100 ohms (**IMPORTANT**: or a short circuit may result), a car is not on the lane, the controller is not hooked up long if the connection isn't correct, and **MOST IMPORTANT**, the trigger is **NEVER** pulled before the connection is correct. Use of the following chart is only required when the track isn't wired correctly. **The Stage III R can operate on 2 or 3 wire tracks with both positive and negative gates.**

3-WIRE CONNECTION CHART			
BRK ON CW	BRK/CST OFF	SWAP	THEN SWAP
Green	Off	Correct	
Green	Green	Black & Red	
Red	Off	White & Red	
Red	Red	White & Black	Black & Red
Off	Keep BRK ON CW	White & Black	If Green , Correct
			If Red , swap White & Red

CONTROLLER OPERATION

Setting the Sensitivity Knob

Resistor

With a Resistor Control Board (RCB) inserted, turning the SENS knob fully counterclockwise (CCW) to the FAST position will place the controller in the maximum resistor sensitivity setting of the RCB. Turning the knob fully clockwise (CW) will place the controller in the minimum sensitivity setting. For

example, a 60-120 RCB will be set at 60 ohms for max sensitivity (CCW) and 120 ohms for min sensitivity (CW). The SENS knob positions in between max and min are designed to give precisely 1/10 of the ohm range more/less sensitivity than the previous position. For a 60-120 ohm RCB, each position adds/subtracts 6 ohms exactly. So the 11 positions would be as follows: 60 (FAST), 66 (1), 72 (2), 78 (3), 84 (4), 90 (5), 96 (6), 102 (7), 108 (8), 114 (9), 120 (SLOW).

Setting the Brake/Coast Knob

Brakes

With the Brake/-/Coast Switch in the B position (UP), turning the BRK/CST knob fully CCW to the MAX position will give maximum braking, zero ohms. Turning the knob fully CW gives minimum braking, 100 ohms.

Coast

With the Brake/-/Coast Switch in the C position (DOWN), turning the BRK/CST knob fully CCW to the MAX position will give maximum Coast. Turning the knob fully CW gives minimum Coast, which adds 100 ohms to the current sensitivity setting. **Coast works in a 2 or 3-Wire connection.**

Off

With the Brake/-/Coast Switch in the OFF (-) position, the controller will not have brakes or coast.

Precautions

Avoid running a car using Coast only. This can make the controller run very hot.

Keep the wiping surface clean. Dirt and metal shaving from the wiper and wiping surface can be trapped between the bands causing unpredictable operation. Use a cotton swab with alcohol to remove the debris. Apply Black Gold before use. Wipe off the Black Gold. This will leave a film that is all that is needed.

All Stage 3R controllers are fused with a 2A Fast-Blow fuse. Do not use Slow-Blow fuses as controller damage may occur. Slow-Blow fuses allow excessive heat buildup during a high current condition before blowing. To replace the fuse, simply unscrew the holder in the bottom of the handle, replace the fuse, and screw the holder back in.

Go to www.onestopslotshop.com/stage3.html for more info on the Stage 3R Controller