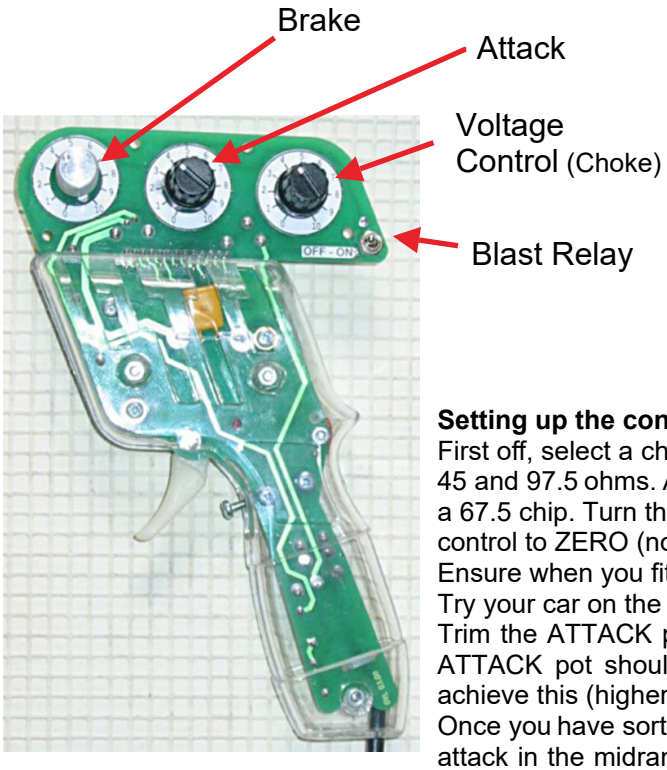
AB Slotsport

Quick Guide to using the "PRO " Series of Controllers

So, now you have purchased one of the best controllers on the Planet, you want to know how to use it! This guide covers all the basics, but there is no substitute for practice time on the track to get that final advantage! These controllers are well built and reliable, with very little to go wrong if you treat it with the care and respect that a precision instrument needs (i.e. Don't use the handle as a hammer for cracking nuts & don't expect it to work if you hook it up incorrectly!)



BASIC CONTROLS;-

Brake;- Controls the amount of braking effort exerted by the motor under braking. () = no brakes & 9 = Full brakes).

Attack;- Controls the "sharpness of the trigger" and how fast the trigger responds to your finger.

Voltage Control (Choke):- This reduces the output voltage of the controller throughout the range and will also kill the "top end" full speed if the Blast Relay is Turned Off.

Blast Relay;- This enables full power at Full Power, irrespective of Voltage control /choke settings when it is turned ON.

Chip;- The value of the chip will set the overall "feel" and response of the controller.

Setting up the controller

First off, select a chip (for most scale racing you will be needing something between 45 and 97.5 ohms. As a rule, the faster the motor the lower the chip. Start of with say a 67.5 chip. Turn the attack pot to the halfway point (12 O'clock) and set the Voltage control to ZERO (no choke), and leave the blast relay on.

Ensure when you fit the chip that ALL pins engage in the chip socket.

Try your car on the track pick a lane which is not the fastest, but not the slowest.

Trim the ATTACK pot until the car feels good. Ideally when the car feels good the ATTACK pot should be somewhere in the Mid range., if not change the chip to achieve this (higher value to soften the car, lower value to sharpen the car).

Once you have sorted the basic response by fitting your selected chip and getting the attack in the midrange, tweek the brakes to your liking. On tight tracks with a lively car, you may wish to kill the top end. This can be achieved by switching off the blast relay, which in itself will take out the "Bite" transition from the transistor output to the blast relays Full power output, when the wiper hits the full power contact.

You can additionally trim the way the controller feels using the Voltage Control / choke. This does require some experimentation and practice and much depends on your personal driving style.

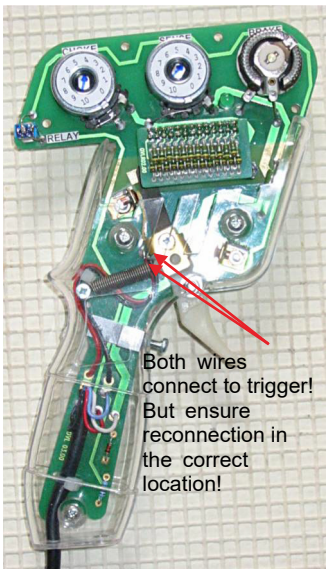
One way is to set up as above and then trim in the "choke" control so you are almost flat out (or at least higher up the wiper band than normal) through the tighter bends in the track, this will give you a controller where you spend most of the time at the top of the band, (except in heavy braking zones), which can make for a more "relaxed" trigger action and consequently a smoother, more consistent driving style, allowing the car a smoother initial response to trigger action. But remember, when the Blast Relay is switched on, and with the choke dialled in, the transition between "almost full power" and "Full Power" at the very top end will be that much sharper!

From lane to lane you can easily tweek the attack and choke settings dependant on the lane difficulty without a chip change if you set up the controller as above, on a "mid" lane.

ENSURE YOU USE CORRECT HOOK UP! Colour coding is the same as Parma!

Red = Brake, Black = Track, White = Power IN.

The controller is fitted with a fuse on the output and a spare fuse is supplied with the controller from new. Pay a visit to your local Auto accessory shop (or AB Slotsport) for some spare fuses, just in case!



TROUBLE SHOOTING;- No Power - Check Auto reset Fuse - re set if necessary.

Controller has power when it shouldn't! Check that BOTH wires are connected to the trigger! One controls brakes, the other controls the transistor. Both must be connected (in the correct location!).

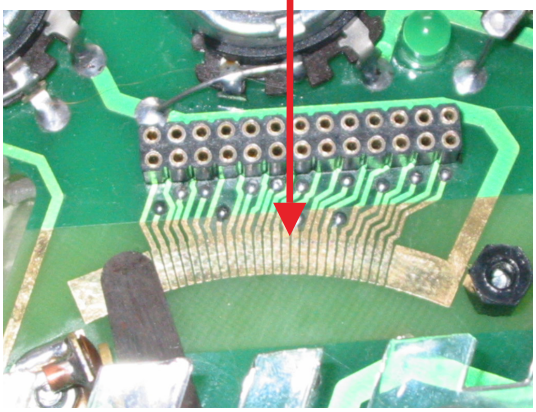
The Controller is protected from wrong hook up by a Schottky diode fitted across the "input/output" terminals inside the controller box, however wrong connection on high power tracks may cause this component to go "closed circuit" and cause the controller to "ouput" power at all settings. This diode is easy to change and available from AB. As a "short term fix" only, this diode may be cut from the circuit and controller will operate normally, but with an unprotected transistor.

Cleaning and general Maintenance

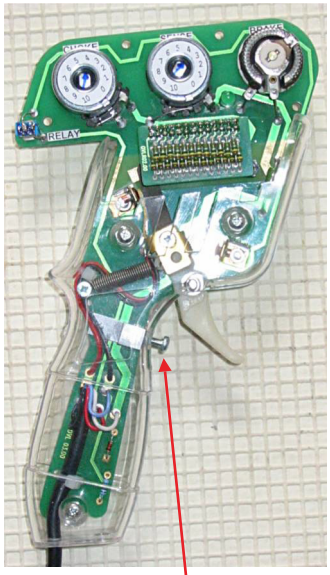
1) **Never use any type of fluid on the Wiper Board!!!!**
The wiper is a carbon based brush, use of any fluids will soften this and cause debris to short between the wiper segments and also ruin the wiper's properties!
If fluids get on to the wiper board, use a clean soft clot damped with lighter fuel or benzine to remove the contaminant and leave controller until the wiper board is dry, clean and the lighter fluid has evaporated.

2) To clean the wiper board, remove the controller chip and using a Clean toothbrush, wipe contacts with the brush in a downward motion to free any carbon debris between the wiper board segments (do not brush across the wiper as this will just compress any debris between the wiper board segments and create a possible short circuit on the board which will degrade the controllers response.

Brush with downward strokes to clean between segments



Press to reset fuse



Trigger Full Power stop screw

Trigger Full Power Stop Screw

This does what it says! It adjusts the travel of the trigger at full power. This saves stress on the full power contact (for heavy handed racers!)
It can also do something quite trick!
The normal "factory set" is such that it stops the trigger when there is contact with the "full power contact" at the end of the wiper travel. (The full power contact actuates the Blast Relay.)
It is possible to adjust this screw so it prevents contact with the full power contact on very light pressure.
This depending on your driving style can be a good thing, as it prevents you hitting "Full power" by mistake when the controller is choked up and voltage control is enabled. Therefore the Full power contact would only make contact when a little extra pressure is exerted on the trigger.
Adjusting this out too much will cause stress on the pivot assembly so excessive adjustment is not recommended as controller damage could result, but, adjusting the screw by a couple of degrees so a little extra pressure will then "make" the contact with the blast relay will prevent accidental full power when you don't need it "by mistake".