

BP 1 Controller Kit Assembly Instructions.

The Web Site shows some images and a little animation graphic to give an overview. There is also a .pdf document with the wiring diagram on the Web Site

Prepare the Parma Plus handle by stripping it down to just the bare aluminium frame.

Fit the BP 1 Transistor kit as detailed below with the help from the pictures and little video on the web site.

1. Start by cutting the grooves or making the holes for the two controls. When you have these correct the Element section will lie parallel with the frame when plugged into the main PCB
2. Use the original Parma brake and full power switch brackets to fit to the same points on the BP 1 Kit. Use the M2 screws provided since the Parma ones are a bigger imperial size. The pin used in the Parma contacts can sometimes be a little difficult to remove, but don't be tempted to drill the holes out in the main PCB, because you will lose the connection plating ring in the hole. At this stage just lightly tighten the screws since they will need to be moved about to match the trigger travel once the rest of it is assembled.
3. Solder the little reset fuse to the rear of the main board marked FS1 through the hole in the frame. You may need to pierce through the insulating tape stuck to the rear of the main PCB. Once installed just bend it across to lie flat against the aluminium frame.
4. Check that the two transistors have the insulating heat transfer pads stuck to them. If not, make sure those pads are between the transistor and the aluminium frame when fitting them.
5. Bend the legs of the transistors as shown and solder them into place. Cut any excess length of the transistor legs to ensure free movement of the trigger once it is installed.
6. Place the spring bracket onto the transistors as shown. Mark the aluminium frame through the little hole in the bracket and drill an M4 hole in the frame at that position. (This will be the mounting screw for the bracket to hold the transistors against the heat transfer pads)
7. Screw the transistor spring bracket in place. Once the bracket spring faces just start to bear against the transistors, give the screw just 3 full turns to provide the required tension.
8. Remove the nuts from the control pots. Feed them through the holes or slots you cut in the top of the Aluminium frame. Then plug in the Element board checking that it fits nicely. Fit the nuts to the pots to secure them onto the frame. Just lightly tighten these since they are a plastic thread casing.
9. Re-fit the trigger assembly and make sure that the wiper arm travels correctly across the Element contact points. Now you can also secure the Brake and Maximum power brackets in to place at the the correct angles to match the trigger positions. Adjustment of the wiper arm position and travel is achieved by loosening the wiper arm mounting screw and moving the arm to the required position and then re-tightening.
10. Use some guide-to-motor wire typically used in slot cars to join the wiper arm to the main PCB marked TRIG.
11. Connect up the other wires to the relevant points IN BRAKE and OUT as shown in the wiring diagram on the Web Site.
12. It is recommended to test it by connecting to the power via a typical car brake light lamp. If the connections are wrong, or if something is shorting out, the lamp will illuminate and hold back the current to prevent burning anything. If the controller works OK and will drive a motor then the lamp can be removed and the controller connected up normally. Note that it is a Positive wired controller.

