P92

Power Distribution Board with BEC

The P92 Distribution Board is able to supply a maximum of 25Amps divided between two groups of terminals. Each group of terminals can draw a combined current of 15A maximum. However the total load drawn by both groups cannot exceed the overall 25A maximum. When setting up the power system on your model it is important to consider how you will divide the power up into the two groups.

Group 1 gives two pairs of terminal (G1.1 and G1.2) protected by Fuse F2. This group also includes the BEC (Battery Eliminator Circuit) for the receiver and servos.

Group 2 gives three pairs of terminal (G2.1, G2.2 and G2.3) protected by Fuse F3.

Fuse F1 provides overall protection of the system providing a failsafe. If F1 fails then the whole of the electric system will lose power and the model will require recovery.

If the load to be drawn by a group is less than the 15A fuse rating a smaller fuse can be substituted (See Example 1). Using standard automotive blade fuses. As a rule of thumb, select the fuse to be the next size up from the normal operating current of the combined load on the group this gives the highest degree of protection while preventing nuisance fuse failures.

NEVER REPLACE F1 WITH A FUSE LARGER THAN 25A. NEVER REPLACE F2 or F3 WITH FUSES LARGER THAN 15A. DOING SO WILL INVALIDATE ANY WARRANTY ON THE P92 DISTRIBUTION BOARD AND RISKS DAMAGING OR DESTROYING YOUR MODEL DON'T DO IT!

To get the best use of the system, it is necessary to divide the load circuits between G1 and G2. Because of the many different setups that are possible, it is not possible to give hard and fast rules but here are some guidelines:

Try to balance up the current drawn between the two groups of terminals as far as possible

If you are using the BEC then place non-critical accessories such as sound units onto G2 where possible

For single motor models, use G2 for the drive motor and G1 for the radio gear. In this case, G1 can be used for auxiliary circuits such as smoke generators or sound units.

For twin motor models, put the drive motors on separate groups. Use G2 for Bow thrusters, especially if using BEC.

For models with three drive motors, place the port and starboard motors on separate groups, place the central drive motor onto G2 and run the auxiliary circuits onto G1.

For models with a large number of high current draw components, it may be better to use two or more distribution boards.

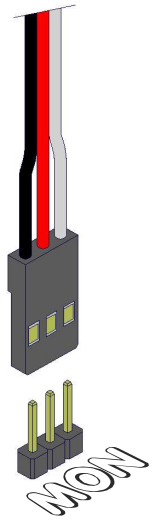
The voltage rating for the distribution board is based on the operating limits of the BEC. The standard 5v BEC version requires an input voltage of 5.5v-15v while the 6v BEC needs 8v-35v input. If you intend to power the main system from a 24V or 48V battery or supply, it will be necessary to remove regulator U1 and provide alternative power for the receiver system.
To use the BEC, connect the flying lead into the BEC or Battery socket on the receiver or, if it does not have one, use an unused servo output. If all the servo outputs are in use, it will be necessary to use a "Y" lead to patch in the BEC. The rating of the BEC is 1A maximum this is a short term rating, designed to meet the transient loads of standard servos. If this current is drawn continuously, the BEC will overheat and shutdown to protect itself. If you are using high-load servos such as large sail-winches it is recommended that you use an alternative supply.

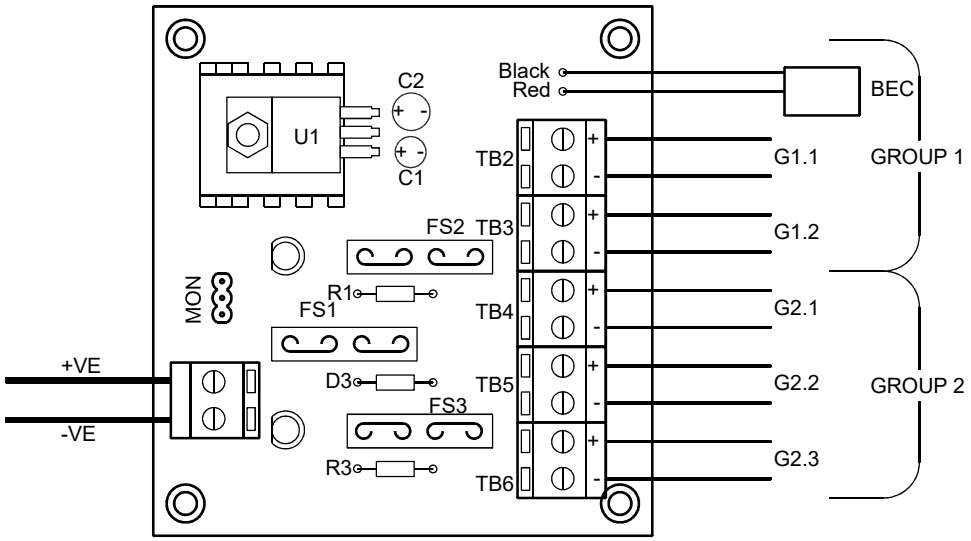
Spare fuses are available in 3A, 5A, 7.5A, 10A, 15A, 20A, 25A & 30A ratings from ACTion see latest lists.

RECOVERY SERVICE
A recovery or repairs service ensures that you will not be left with a dead unit for any reason. The Service Charge for this kit is £13.00 including parts (including return shipping cost IN UK).
All returns should include full Credit Card details (Name & Address of cardholder, Card Number, Expiry Date and Card Security Number)

ACTION R/C ELECTRONICS, 1 Llwyn Bleddyn, Llanllechid, Bangor LL57 3EF, United Kingdom

P92 "5+1" POWER DISTRIBUTION BOARD (Drawn Full-Size)



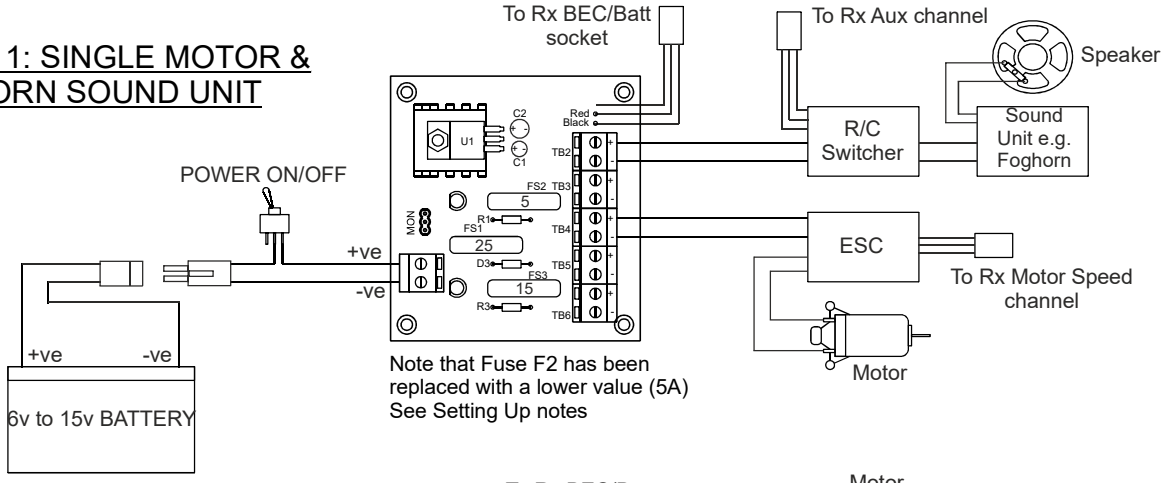


Mounting hole dimensions are 3mm dia; 57mm x 61mm (2.25" x 2.4") spacing

Optional voltage display module.

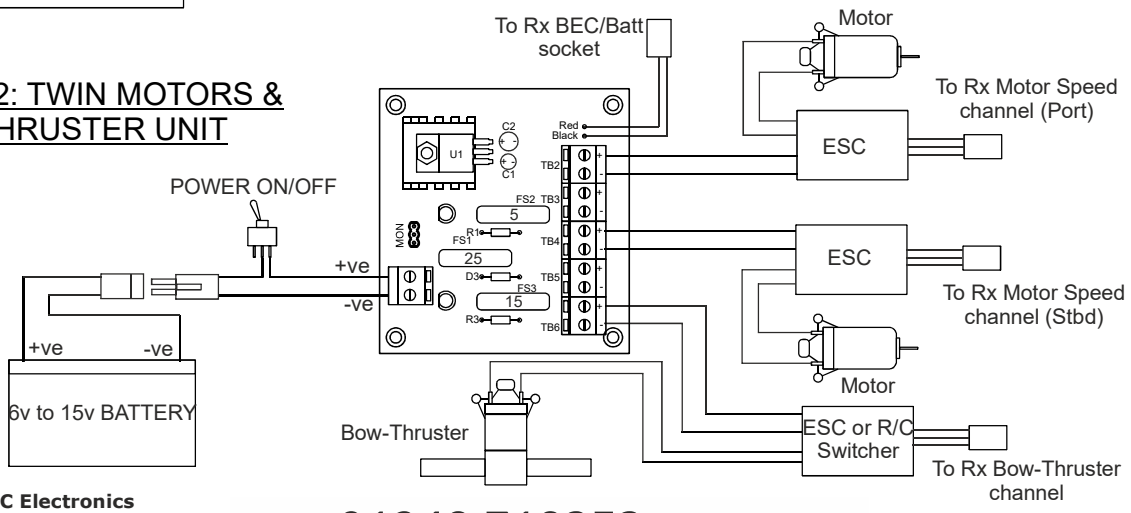
The P92 has the option to connect a voltage display (sold separately) to monitor the battery voltage. Simply connect to the pin header marked "MON" If using our voltage monitor it has a 3-pin plug that will simply plug straight to this header. If you need a longer lead for the monitor, simply use a standard servo extension lead. The pin header has positive to the centre pin & negative to both outer pins, so you can connect either way round.

EXAMPLE 1: SINGLE MOTOR & FOGHORN SOUND UNIT

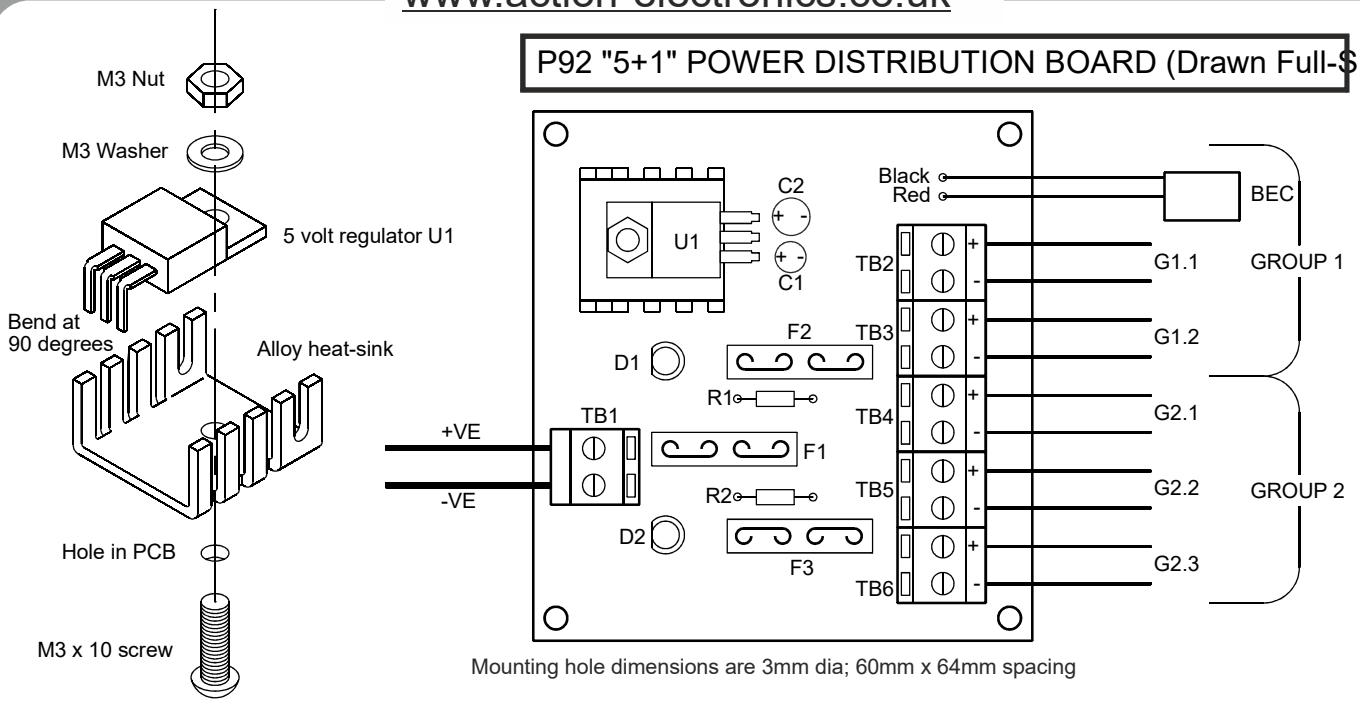


Note that Fuse F2 has been replaced with a lower value (5A) See Setting Up notes

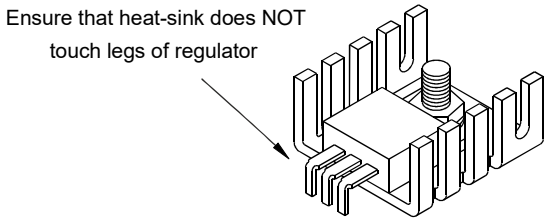
EXAMPLE 2: TWIN MOTORS & BOW THRUSTER UNIT



P92 "5+1" POWER DISTRIBUTION BOARD (Drawn Full-Size)

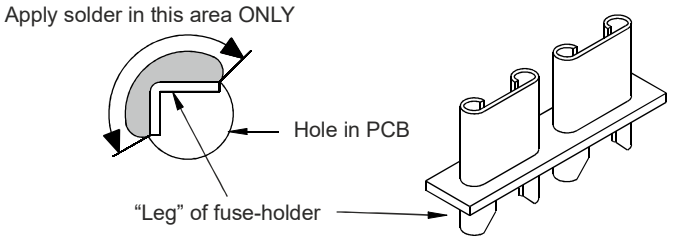


Mounting hole dimensions are 3mm dia; 60mm x 64mm spacing



ASSEMBLY OF 5V REGULATOR AND HEAT-SINK

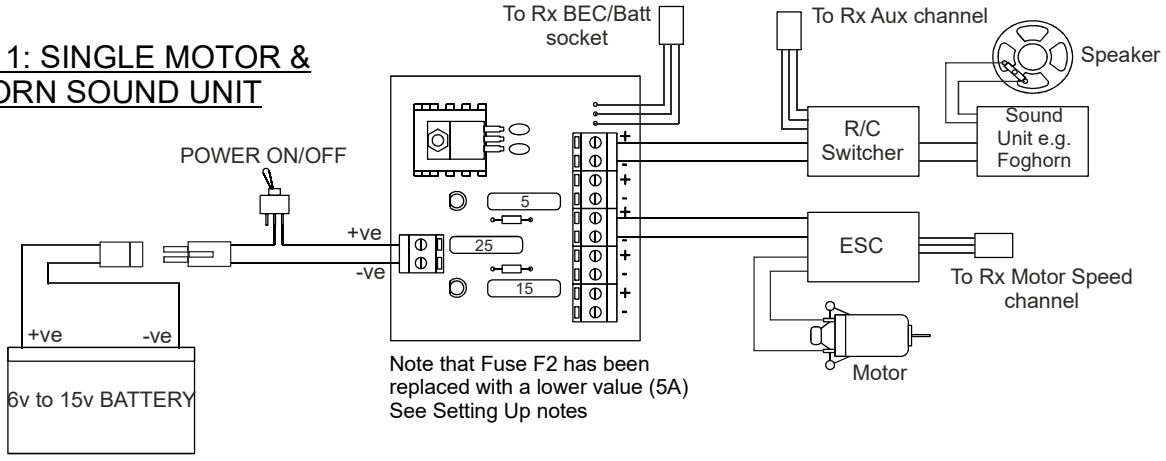
(Applies only to kit version)



SOLDERING FUSE-HOLDERS

(Applies only to kit version)

EXAMPLE 1: SINGLE MOTOR & FOGHORN SOUND UNIT



Note that Fuse F2 has been replaced with a lower value (5A) See Setting Up notes

EXAMPLE 2: TWIN MOTORS & BOW THRUSTER UNIT