THE POWER OF REDARC®

Mounting the BCDC

"Where do I mount my BCDC?" is a common question faced by our REDARC technical team.

While there is not one correct answer, below are some objectives to take into consideration when choosing the right mounting location for the individual vehicle and requirements.

- **For the best charging performance the BCDC should be installed as close as possible to the auxiliary battery/batteries as possible.**
  While we recommend to install the BCDC less than 1 meter away from the battery that is being charged, it may not be the most practical solution. REDARC's recommendations of the BCDC in close proximity to the auxiliary battery being charged, is to minimise voltage between the unit and auxiliary battery. If distance between the BCDC and the auxiliary battery cannot be avoided, then bigger size wiring/cable must be used so maximum charge voltage can reach the auxiliary battery.

  Please also see the below link on one BCDC two different batteries in different locations:
  http://www.redarc.com.au/handy-hints/tech_tips/one_bcdc_for_two_batteries_in_different_locations/

- **If the auxiliary battery is mounted in the engine bay, then the BCDC should be mounted away from direct engine heat.**
  The REDARC BCDC 3 stage battery chargers will work to full capacity up to 55°C ambient temperatures, then start to de-rate (reduce charge rate) up to a maximum of 80°C, with the current reducing to zero at around 85°C. This is to protect the internal electronics of the BCDC and to provide some protection to the battery, because charging at high temperatures can risk damaging some types of batteries. REDARC strongly advises to check the battery manufacturer's specifications for charging voltage and installation locations of the particular battery being selected.

  The BCDC range can certainly be used for charging under-bonnet auxiliary batteries, but a suitable location must be identified. For example,
  - behind headlights,
  - on the inner guard
  - Between the front grille and radiator.

  These are all better mounting locations than installing the unit right next to the exhaust/turbo. The above locations will ensure adequate airflow over the unit, there by aiding in the cooling of the unit.

  The BCDC's heatsink has been engineered to dissipate its own heat but added cooling of the unit can be achieved by mounting it to a metal surface.

Ultimately, for optimum performance:
- Away from direct engine heat
- Close to the auxiliary battery
- Ensure correct fusing and cable size

TECH TIP