Designed for the MQ Mitsubishi Triton the ARB Under Vehicle Chassis mount battery box has been designed around the Optima Range of battery and Redarc’s BCDC range of chargers.

The all steel battery tray provides the strength and protection required to mount the battery under the vehicle. The tray is manufactured from 3mm sheet steel, folded and welded with a separate cover panel that provides protection to the battery. The backing plate and chassis clamp are 4mm mild steel. The tray is zinc plated and then finished in a durable satin black powder coat.
The tray is designed to fit on the inboard passenger side of the chassis, between the fuel tank and the transmission. Fitment has been confirmed with ARB Summit Side Rails and Steps. Fitment has not been confirmed with after-market fuel tanks. It is recommended that clearance is checked before fitting the chassis mount dual battery tray if a long range tank has been fitted. The tray and fitting kit (excluding battery) weighs approximately 9.5kg.

Due to vehicle availability fitment has only been confirmed on dual cab models.

Battery Selection:

The tray has been designed around the 10” range of Optima batteries including:

- D25/75 Yellow Top
- D34/78 Yellow Top
- D35 Yellow Top
- D34M Blue Top

For the majority of applications the Yellow Top Optima is suitable. The difference between the Blue Top and Yellow Top deep cycle batteries is that the Blue Top batteries have both automotive (SAE) posts and threaded studs, while Yellow Top (other than D31T) only have SAE terminals.

Due to the vastly different range of AGM battery weights available and the necessity to mount the battery on its side for clearance the Optima 10” range has been selected for a number of reasons including its compact size – critical for mounting under a vehicle to maintain clearance and not restrict off road performance. Further the Optima Spiralcell technology offers high levels of resistance to vibration and the ability to recharge much faster and higher voltage characteristics during discharge.

Dual Battery Wiring Kit And BCDC Selection:

ARB Dual Battery Wiring kit part number 4300010 has been developed for use with ARB’s range of under vehicle dual battery trays. The wiring kit includes cables with terminated ring ends for fitment to battery terminals and earth points. It is recommended that connections to the Redarc BCDC use the included soldered butt splice crimp connection that is covered with heat shrink.

ARB’s testing of the 4300010 kit included exposure to 80 degree ambient temperature while running a high current load through the fuse and holder for a continuous duration of 8 hours. ARB’s Dual battery wiring kit has been designed for those customers using a BCDC with a rated output up to 25amp at 12 volts.
For vehicles using larger Redarc’s range of 40amp BCDC chargers or where the vehicle will experience extremes of temperature or charge duration, Redarc 40 or 60amp fuse kits are recommended. These kits use a MIDI fuse in place of the blade fuse included in the 4300010 kit. MIDI fuses overcome the potential for contact resistance through the use of bolts to retain the fuse to the cable.

The table below shows the most appropriate fusing option in conjunction with the 4300010 kit.

Selection:

<table>
<thead>
<tr>
<th>BCDC Charger</th>
<th>Description</th>
<th>Economical Option (Normal Use)</th>
<th>Premium Option (Heavy Use)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCDC1220</td>
<td>DC - DC BATTERY CHARGER 12V 20A</td>
<td>4300010</td>
<td>4300010 &amp; REDFK40</td>
</tr>
<tr>
<td>BCDC1220-IGN</td>
<td>DC - DC BATTERY CHARGER 12V 20A IGNITION</td>
<td>4300010</td>
<td>4300010 &amp; REDFK40</td>
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<tr>
<td>BCDC1225</td>
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<td>4300010 &amp; REDFK40</td>
</tr>
<tr>
<td>BCDC1225-LV</td>
<td>DC - DC BATTERY CHARGER 12V 25A IGNITION</td>
<td>4300010</td>
<td>4300010 &amp; REDFK40</td>
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<tr>
<td>BCDC1240</td>
<td>DC - DC BATTERY CHARGER 12V 40A</td>
<td>4300010 &amp; REDFK60</td>
<td>4300010 &amp; REDFK60</td>
</tr>
<tr>
<td>BCDC1240-LV</td>
<td>DC - DC BATTERY CHARGER 12V 40A IGNITION</td>
<td>4300010 &amp; REDFK60</td>
<td>4300010 &amp; REDFK60</td>
</tr>
</tbody>
</table>

The Redarc BCDC range have been selected as they have a number of different models depending on your customers’ needs and can be wired to charge in conjunction with Redarc Solar panels and regulators.

As the tray and BCDC are fitted under the vehicle, consideration will need to be made to the type of use the vehicle will be put through. For vehicles that will be exposed to frequent water crossings or muddy ruts and bog holes it is recommended that ARB’s tub mounted battery box is used. For vehicles fitted with the chassis mount tray it is recommended that the tray is inspected after off road use to check for the build-up of any debris including mud, rocks, sticks and grasses.