# Universal Battery Box Kit INSTALLATION INSTRUCTIONS





### Kit Includes:

- Redarc BCDC charger with pre wired harness
- TLR Powder coated tub mounted battery box
- 2x midi fuse holders and fuses
- Nuts/bolts, screws and cable ties
- Redarc instruction booklets and TLR instruction sheet
- 1x Sigle socket outlet
- 1x Dual socket outlet
- Anderson plug to accept unregulated 12v solar directly
- Add a circuit fuse holders x2 to allow connection to ignition for vehicles with
- variable voltage alternators.
- 32mm cable gland

\*It is the responsibility of the installer to make sure that all cabling and circuit protection is secured using either the nuts and bolt or cable ties supplied in the kit. The installer should also make sure that all cabling is away from sharp edges, air conditioning lines and any hot or moving parts to avoid damage to the vehicle.

#### Full installation videos are available for our vehicle specific kits, which may aid in your installation.

Ford Ranger:Install Video Link (shows connection to fuse box for variable voltage alternator vehicles)Isuzu Dmax:Install Video LinkVW Amarok:Install Video Link

#### Step 1: Mounting the Battery Box

Follow the TLR instructions for this part of the install. If mounting in a tub *with a tub liner* - the next step will be to mark (trace outline) where the box is going to be installed and to cut out the tub liner to allow the box to sit into position.

First locate the position that you are going to mount the box and ensure that where the box is sitting and where you are going to drill the holes through for mounting is clear underneath the vehicles tray or tub. Mark holes and drill.

Next secure box into position using the bolts and nuts supplied in the kit.

Tighten all bolts locking tray into position.

Place chosen battery into tray and secure using hold down clamp supplied in kit.

#### Step 2: Routing Cables to Main Battery

Start by routing the main 7m harness out of the tub, canopy or tray area then follow along the chassis rail and follow existing cabling under vehicle beside chassis rail toward the main vehicle start battery. Secure harness using cable ties supplied in kit. Once in the engine bay, connect the main fuse holder labeled main battery to the harness and secure midi fuse holder in engine bay to battery hold down clamp using cable ties supplied.

#### Step 3: Making Electrical Connections



Once the midi fuse holder has been mounted securely it is time to start making the electrical connections. Start by connecting the main positive cable to the vehicles main battery. Next connect the main battery negative cable.

(If wiring with a variable voltage alternator, connect earth on the body side of the current module as shown in the picture on the right)



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Once the main battery has been connected it is time to connect the aux battery.

First connect the 3 black negative terminals to the aux battery and then connect the 3 red positive terminals to the positive terminal as shown In the image on the left.

Once the cables have all been connected its time to put the 2x 15amp blue fuses into the fuse holders and power up the accessory sockets.

# Step 4: Making Electrical Connections to engine bay fuse box (only required on vehicles with variable voltage alternators)

Part of the main harness of your kit will be a small harness labeled "ignition" this wire needs to be run to the fuse in the engine bay. (If your car has a standard or temperature compensating alternator this wire can just be covered with heat shrunk and cable tied out the way)

Using the add a circuit fuse holders supplied in the kit locate a fuse that is live when the ignition is turned on and then has no power on it when the car is turned off. **Next turn the car fully off and remove that fuse**, place your fuse or one of the ones supplied in the kit into the empty slot on the add a circuit fuse holder and into the fuse holder in the location where the fuse has been removed. Refer to images below.



1.Locate ignition powered fuse using test light or multimeter.



2.Remove fuse from fuse box.



3. Insert removed fuse into add a circuit fuse holder and insert fuse holder into fuse box

## Step 4: Testing the Redarc Charger

Now that everything has been installed and connected it is time to test the system. Refer to the installation video to see how to test your dual battery system.



Start the engine and after a short time the vehicle light should come on and the stage light will either be solid on or flashing depending on the state of charge of the battery.

Next turn off the car and turn on the headlight to speed up this process, after a short amount of time the vehicle light and stage light will go out which means that the charger is now back in isolation mode.

To test Solar plug your UNREGULATED solar into the Anderson Plug on the box labeled solar input. The solar light, stage light and profile light will come on the charger showing that you are charging via solar. Your kit is now fully tested and ready to use.