

# Ford Ranger 2011 to Current | Mazda BT50 2012-2020 Tub Kit INSTALLATION INSTRUCTIONS



## Kit Includes:



- Redarc bcdc charger with pre wired harness
- TLR Powder coated tub mounted Dual battery box.
- 2x midi fuse holders and fuses
- Nuts/bolts, screws and cable ties
- Redarc instruction booklets and TLR instruction sheet
- 1x Single socket outlet
- 1x Dual socket outlet
- Anderson plug to accept unregulated 12v solar directly

*\*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 video Available for this kit: [Install video](#)



## Step 1: Mounting the battery box

Follow the TLR instructions for this part of the install.

First remove the factory tie down and factory bolt at the back of tub.



*In models 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.*

Mount tray into position by reinstalling the bolts removed in step 1.

2x bolts from tie down and 1x bolt on bracket at rear of tub.

Next mark and drill 1x extra hole in floor of tub and use bolts and nuts supplied in kit to secure extra bolt in tub floor. Tighten all 4 bolts locking tray into position.

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



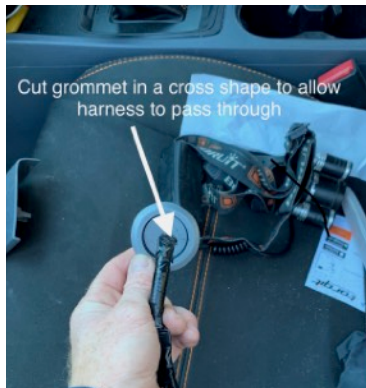
## Step 2: Routing Cables to Main Battery and Fuse Box

Start by routing cables out of the tub by exiting through the tub close to the back of the cab. This step may change depending on whether the tub has a canopy or hard cover. If this section of the tray is not accessible then a cable gland is supplied to allow cable to be routed out of tub. (see install video)

Then run the cable down the back of the car to the chassis rail and follow existing cabling under vehicle beside chassis rail until under passenger seat. Separate the 2 harnesses, the one labeled main



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battery continue to route toward main battery. The one labelled ignition route into cab through grommet under passenger seat.

The next step is to run the small ignition wire to the car fuse box under the steering wheel. First we will need to remove the passenger side trims.



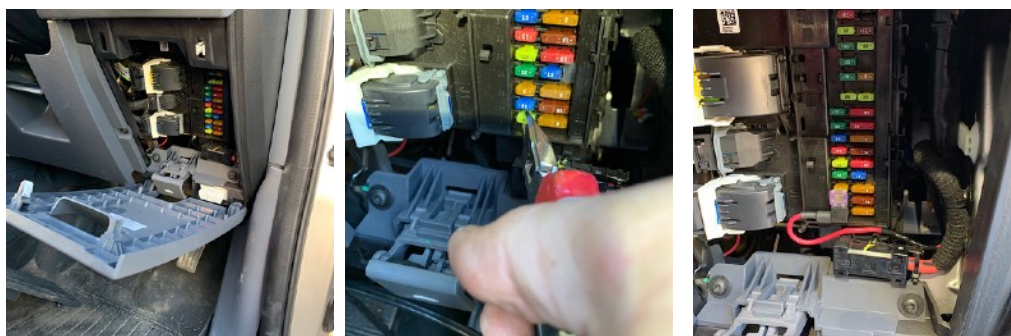
Refer to the videos to aid in this part of the install.

[Removing Ford Ranger Trims](#)

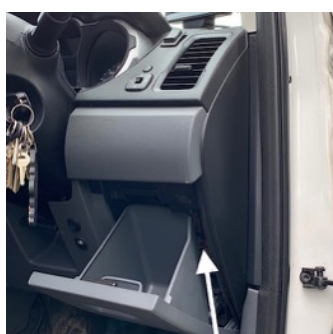
Depending on the model of your vehicle you will have one of the 2 different fuse boxes seen in the below images. In your kit will be a small harness labeled "ignition" this wire needs to be run to the fuse box under the steering wheel.


Refer to images below.

**Fuse A:** Remove yellow 20amp fuse and insert fuse holder from kit



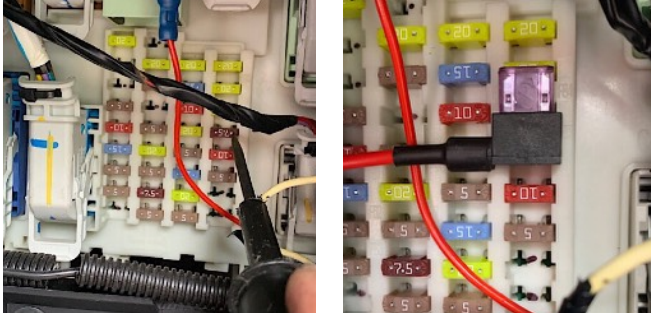
**Fuse B:**



This image  shows the tab to push up which will allow the storage tray to come out and expose the fuse box



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Remove 7.5amp fuse  
Insert fuse holder from kit

Secure harness using cable ties supplied in kit.

Continue to rote the second part of the harness labelled main battery to the engine bay. Once in the engine bay, connect the main fuse holder labeled main battery to the harness and mount midi fuse holder in engine bay near battery using screws supplied in kit.

## 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. Once the main battery has been connected it's 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 right.

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. Your dual battery system is now completely wired up and ready for testing.



## 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.