

300 Series Under Bonnet Kit Instructions

While all care has been taken to prepare these instructions any damage done to your car is YOUR responsibility and Accelerate Auto Electrics can not be held liable. If you are unsure about ANYTHING feel free to call us on 07 5479 6652 and we will be happy to answer any questions.

Before starting this job disconnect the battery from the negative side and insulate so it does not fall back onto the neg terminal. Ensure the car is in a safe spot to work where all doors can be opened, ground is flat and the wheels are straight ahead.

Installation Instructions:

Please read these fully and ensure you understand all steps before starting! Everything will unclip easily and go together easily.

IF YOU HAVE TO FORCE ANYTHING, STOP AND HAVE A LOOK BEFORE YOU BREAK SOMETHING

Tools and consumables needed

- Phillips screwdriver
- 8, 10, 12, 13 and 14mm Spanners and sockets with extension
- Side cutters (cable ties)
- Stepped drill bit for inside the cup holder

1. Remove cover from battery, Unclip the upper wiper shroud from above the battery and move to the side. You will notice the 2 clips shown in the photo below. Leave the rubber seal in place and do not damage it. The shroud can just sit on the engine cover while you work.



2. Remove the positive and negative battery terminals. Then remove the 2 x 12mm bolts retaining the battery hold down clamp. Keep one of these bolts aside as you will reuse it. Remove both earth bolts and the earth strap from the firewall. Retain these bolts as they will be re fitted. Lift the battery clamp and battery out and put it to the side.

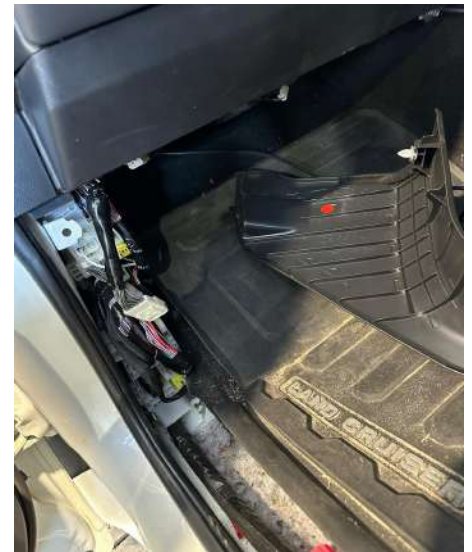
3. Remove the 5 x 12mm bolts retaining the plastic battery tray and remove. Keep one of these aside as you will reuse it later for the top of the new battery hold down bracket. Remove the metal plate that the plastic Battery tray sits on & keep aside, This will get refitted.



4. With the factory tray removed you can now access the fire wall grommet, Snip the end off the accessory wire point in the rubber grommet, you can see the little knob in the pic below, This is for the routing of the Socket panel harness through the vehicle.



5.. Unclip the panel under the glovebox, passenger kick panel (**Make sure to undo the plastic nut on passenger kick panel**) and both door sill panels. Leave the Center pillar panel in place so that the seatbelt is bolted too.



6. Remove the passenger side cup holder by pulling it directly upwards to unclip. You can make a fist inside the cup holder part and pull up. Then remove the seat belt bolt (14mm) shown and leave disconnected. Unclip the side panel as shown and pull just enough to reveal a gap as shown. Dont pull it all the way off and make sure all the clips on that side panel stay in place.

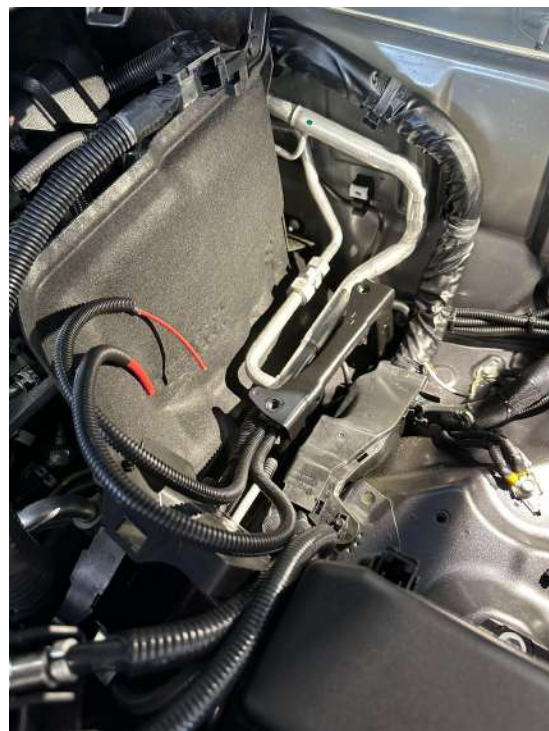


7. Run the wiring all the way down from the cup holder, along the door sills, under the center panel and up through the hole in the grommet you made during step 4,. Secure it with cable ties all the way.



8. Remove the 10mm earth bolts as shown and bolt the earth terminals from the cupholder harness under it. Run the positive wires up high and keep them up & out of the way for the time being.

PLEASE NOTE, IF FITTING ANDERSON PLUG & TOW PRO HARNESS AT SAME SECURE WIRING AS SHOWN IN SECOND PHOTO.



PLEASE REFER TO ISOLATED ANDERSON PLUG, TOW PRO & ESC SECTION AT BOTTOM OF INSTRUCTIONS PRIOR TO CONTINUING TO FIT THE BATTERY TRAY IF OPTIONED.

9. Refit the Factory metal tray ensuring no wires are crushed using the original bolts. ONLY put bolts in the holes shown in the picture, leave the rest out as the new tray will bolt through into these.



10. Place the spacers supplied in the locations shown in the pictures. **STACK 1 SPACER IN EACH LOCATION** They are fitted with double sided tape, This is to stick the spacers in their location to make it easier to fit the tray without them moving.



11. Fit the Aftermarket battery tray using the countersunk bolts shown in the image.

Fit all Counter sunk bolts into the tray ensuring to start them all with your fingers prior to tightening them. Use one of the original Battery clamp bolts in the hole furthest Left as shown in the image. Confirm everything lines up prior to tightening. If you have to force any bolts to tighten, the tray is not lined up, Loosen off & re position.

ENSURE THERE IS SPACE BETWEEN THE TRAY AND THE ALUMINUM AIR CON LINE WHERE THE FOAM IS SITUATED.

12. Tighten the guard side bolts first then all of the lower bolts. Ensuring they are tight.

Ensure that the original bolt you have fitted closest to the drivers side of the vehicle still screws easily and freely. Remove that bolt and set it aside once tray fitment is complete.



13. Fit both supplied earth leads as shown in the photo below. Short lead going to start battery (Towards Guard) Long lead going to Auxiliary Battery (Towards Drivers side of vehicle)

Fit the Factory Start Battery in a North / South fashion with the negative terminal towards the vehicles firewall
Fit the Invicta Lithium Battery in the remaining tray space with the Negative terminal towards the vehicle's firewall.

PLEASE NOTE LEAVE BATTERY CONNECTIONS TILL LAST.



14. Fit the after market battery hold down bracket using the long 12mm bolt on the drivers side mount.

Use one of the original short 12mm bolts on the passenger side mount near the strut to secure.

PLEASE NOTE

The Batteries are connected in this photo. DO NOT CONNECT BATTERIES UNTIL STEP.



THIS NEXT SECTION COVERS THE FITMENT OF THE BCDC BRACKET & WIRING.

15. . Remove the plastic cover behind the grill. To undo the clips just push the center of each one gently and it will 'pop' down. Then lift the tray and all the clips will just pop up with the tray. (Be gentle on the lifting up as the clips may go flying)

To reset the clips push the pin against a hard surface until they pop up. You will require to reset them to fit the cover back on.



16. Using a spanner remove the 14mm bolt shown in the image. Retain this bolt for DCDC bracket fitment.



17. Fit the DCDC mounting bracket using the original 14mm bolt to hold it in place and fit the supplied 10mm nut and bolt to the hole on the horn bracket.

PLEASE NOTE

GR Sports Solar Anderson plug is not mounted to the DCDC bracket.



18. Run the wiring down under the DCDC bracket and across the radiator support. Come up through behind the headlight & route along the passenger guard to the batteries. Ensure to fit the earth lead to the 10mm bolt on the guard mounted horn bracket as pictured. Ensure this is tight. Secure harness to where possible with Zip ties routing neatly to suit.



19. Connect the DCDC harness ends as labeled. Harness end is labeled to corresponding Midi Fuse holders. Ensure these connections are tight. Photo for Reference of Fuse Layout.

Twin Midi fuse holder labeled SOCKET SOCKET; Connect the harness from the rear cup holder to these 2x fuses. This is 2x fused circuits in the rear.

Single fuse holder labeled ISO/ESC (Only fitted if Anderson plug/ESC harness optioned IF both optioned, Twin Midi fuse holder is used); Connect Power lead from Isolation relay/ESC to here.

Twin Midi fuse holder labeled DC OUT & DC IN; Connect BCDC Harness to here ensuring labeled ends match corresponding fuses



THIS NEXT SECTION COVERS IGNITION WIRE CONNECTION

PLEASE NOTE, ENSURE THE BATTERIES ARE STILL DISCONNECTED PRIOR TO THIS SECTION.

20. Remove the cover from the original fuse box in front of the batteries. Unplug all the plugs then you can & unclip the corner plastic bit where the wiring comes through.

Remove the tape so you can run the blue wire from the DCDC harness into the fuse box, Retape once fitted & plug in all removed plugs ensuring they lock into place.



21. Remove the 4th 20amp fuse closest to the passenger guard as pictured & insert the piggy back fuse holder in its place. **FIT THE FACTORY FUSE INTO THE BOTTOM SPOT IN THE PIGGY BACK FUSE HOLDER.**

Crimp the piggy back fuse holder tail to the Blue wire as required.

PLEASE NOTE, IF ISOLATED ANDERSON PLUG HARNESS OPTIONED FOR YOU WILL REQUIRE TO CRIMP THE TRIGGER WIRE FOR THE IGNITION RELAY IN WITH THE BLUE WIRE.



THIS SECTION COVERS FITMENT & CONNECTION OF SOCKET PLATE IN REAR.

22. Drill a 24mm or larger hole in the bottom of the cup holder removed in step 6.

Feed rear socket harness through hole & attach anderson plug to harness. Ensure the pins are inserted in the correct orientation & that they clip into place securely. If you insert them incorrectly, You will require a small flat blade screwdriver & a tutorial video off youtube on removing anderson plug pins. Plug in the factory USB-C plug & the Anderson plugs then screw the socket plate into the cup holder using the supplied 3x screws. Clip cup holder back into position.



23. Refit all panels removed, Double check all connections are tight & secure. Connect the Batteries as pictured in step 14. **PLEASE NOTE IT IS COMMON PRACTICE TO CONNECT POSITIVE FIRST THEN NEGATIVE, IT CAN BE EASIER TO DO THIS THE OTHER WAY AROUND JUST ENSURE NO TOOLS / BOLTS CAN CALL AND TOUCH THE POSITIVE TERMINALS OF THE BATTERIES TO ANY METAL PART OF THE VEHICLE.**

24. Download the Invicta app on your phone and check connection to the battery, You will require to allow bluetooth for the app to correctly connect.

25. Once connected to the battery & all connections checked start the vehicle & monitor the app. It can take up to 2 minutes for the DCDC to start charging, You should see a charge amperage of 25 - 40 amps. (25 amp for BCDC1225D, 40 amp for BCDC1240D)

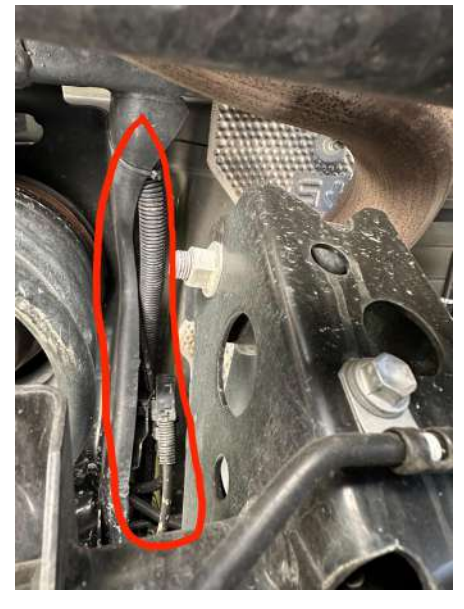
PLEASE NOTE IF ANY LIGHTS ARE ON YOUR DASH BESIDES THE HANDBRAKE LIGHT SHUT YOUR VEHICLE OFF IMMEDIATELY & CHECK ALL CONNECTIONS & PIGGY BACK FUSE IS CORRECTLY SEATED.

26. Once Charge operations are confirmed switch the vehicle off & plug in something in the socket panel in the rear. You should now see a discharge amperage on the invicta app. This confirms rear sockets are connected & working correctly.

27. Congratulations! You have fitted your dual battery system. You can now re-fit any remaining panels & the battery cover. It should all just clip into place with ease, If anything needs to be forced confirm nothing is routed in the way or incorrectly secured. No panels should require force to be re fitted.

THIS SECTION BELOW COVERS THE INSTALLATION OF THE ISOLATED ANDERSON PLUG, TOW PRO & ESC OPTIONS.

1. Route Anderson plug, ESC & Tow pro harness to rear of vehicle. Run these harnesses under the vehicle on the passenger side following the fuel lines & going on top of the fuel tank. Once over the fuel tank cross to the drivers side of the vehicle & continue running the harnesses to the rear of the car. Zip tie every 300mm or where possible to secure these harnesses.



2. Follow the TOW PRO instructions included for connection of this harness into the trailer plug & brake light feeds. On the positive lead in the Towpro harness this will be getting connected to the circuit breaker located on the side of the Battery hold down bracket.

3. Mount Isolated Anderson plug / ESC anderson plug on trailer bracket supplied in kit. Insert pins into Anderson plugs ensuring they are of the correct orientation & click into place.



4. At the front of the vehicle connect the Negative terminals to the bolt under tray as shown in step 8.
5. At the front of the vehicle route the positive terminals as shown in the second photo in step 8. leave the positive ends out of the way for the TRAY installation in step 9 - 14.
6. After the Tray installation & Battery Holden down bracket installation connect the Isolated Anderson plug harness to the OEX 100ah relay located on the side.
Isolated Anderson plug Harness to rear; Pin 87, Bolted stud.
Harness to Midi fuse Labeled ISO; Pin 30, Bolted stud.
Ignition Harness; Pin 86, terminated with Ignition feed for DCDC harness.
Earth loop; Pin 85, Terminated under the tray with all other Earths.
7. Run the Positive feed for Isolated Anderson plug / ESC power to the Corresponding labeled midi fuse.
8. For the Isolated Anderson plug Ignition harness route into fuse box in front of batteries following steps 20 - 21.
9. Once all connections are tight & Secure Refer back to step 22 & complete your installation.

Kit inclusions

- Invicta 100 amp Lithium Battery
- Accelerate Custom battery tray
- Accelerate Custom Prewired battery hold down clamp
- Accelerate Custom prewired Bcdc Bracket with Bcdc fitted
- Accelerate Custom Cupholder assembly
- Cup Holder harness
- 5x spacers in various shapes and sizes
- 9x countersunk 5mm Allen key bolts
- 1x 10mm bolt with nut for Bcdc Bracket
- 2x earth leads
- Positive Battery Terminal
- Packet of cable ties
- Double sided tape

Tools and consumables needed

- Phillips screwdriver
- 8, 10, 12, 13 and 14mm Spanners and sockets with extension
- Side cutters (cable ties)
- Stepped drill bit for inside the cup holder and drill
- Insulation tape