

AUXILIARY BATTERY TRAY TO SUIT 2005 ON TOYOTA HILUX
Product No's 4214060 / 4314060

Uses Battery type CENTURY (122106) N70ZZLH.

Battery weight not to exceed 25kg.

Fitting kit part No's 6172680 & 6172681 (Battery tray only)

FASTENER TORQUE SETTINGS:

SIZE	Torque Nm	Torque lbft
M6	9Nm	7lbft
M8	22Nm	16lbft
M10	44Nm	32lbft
M12	77Nm	57lbft

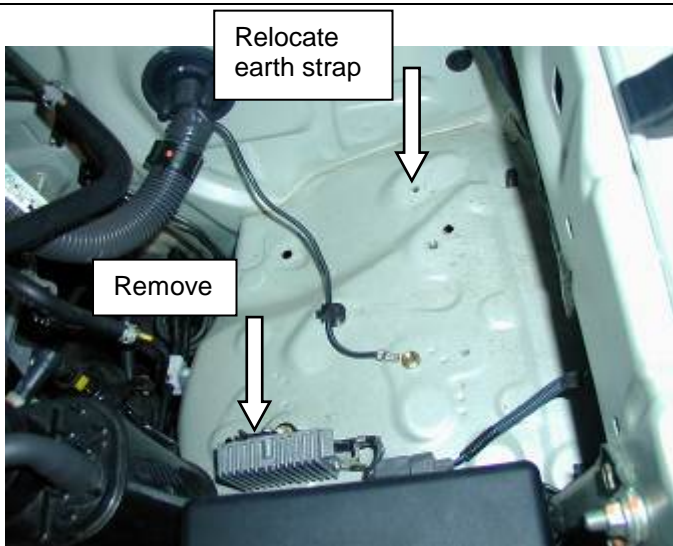
USE	PART No	QTY	DESCRIPTION
BATTERY TRAY TO ENGINE BAY	6542106	1	Battery tray assembly 05 Hilux
	6151021	2	Bolt M8 x 1.25 x 20mm
	4581063	2	Washer flat M8 H/D
	4581044	1	Washer flat M8
	4581046	2	Washer spring M8
	6151132	1	Nut flange M8
	6151180	1	Bolt M6 x 20mm
	4581072	1	Washer flat 1/4" x 3/4"
	6151042	1	Washer spring M6
BATTERY TO TRAY	6582415	1	Battery hold down clamp
	6151113	1	L Bolt 135mm
	6151181	1	L Bolt 105mm
	4581044	2	Washer flat M8
	6151032	2	Nut M8 nyloc

Wiring Kit (supplied with 4314060 only)

USE	PART No	QTY	DESCRIPTION
WIRING KIT	1314	1	Sure Power battery separator
	6151017	2	Bolt M6 x 16mm
	6151046	2	Washer flat M6
	6151128	2	Nut flange M6
	6821157	1	Loom separator earth and start assist
	6821103	1	Cable Aux battery positive to separator
	6821125	1	Cable Aux battery negative to earth
	6821139	1	Cable main battery positive to separator
	180302	12	Cable tie
	180701	1	Scotch lock



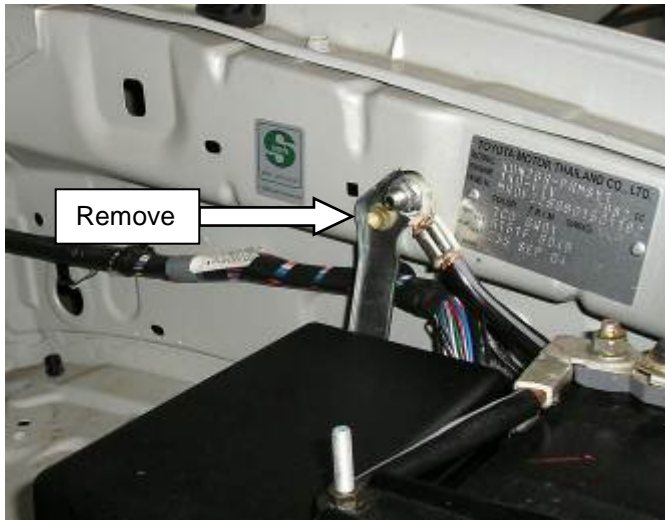
1. Disconnect the main battery.
2. On turbo diesel models, remove the control module and bracket from the fire wall. Remove the module from the bracket and retain the screws.



3. For V6 petrol models, relocate the earth from the original hole to the rear most tapped hole.
4. Remove the bracket and module from the inner guard. Remove the module from the bracket and retain the screws and unclip from the wiring loom.



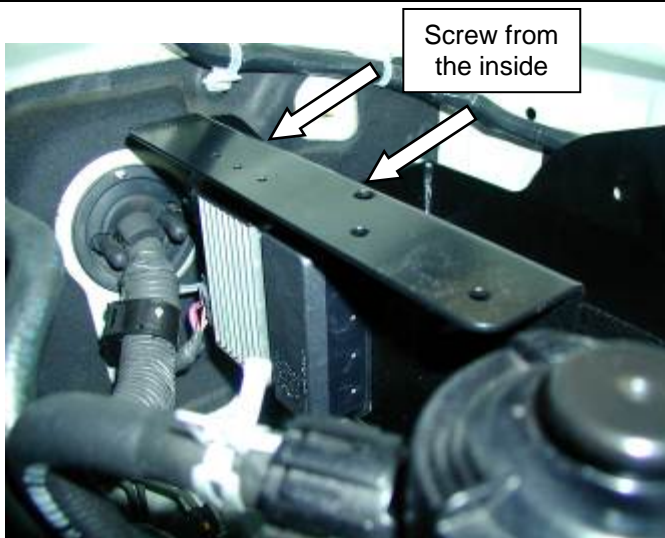
5. On V6 petrol models attach the module removed in the step 3 to the side of the battery tray using the original screws.



6. Remove the bolt holding the earth strap bracket. Retain the bolt.

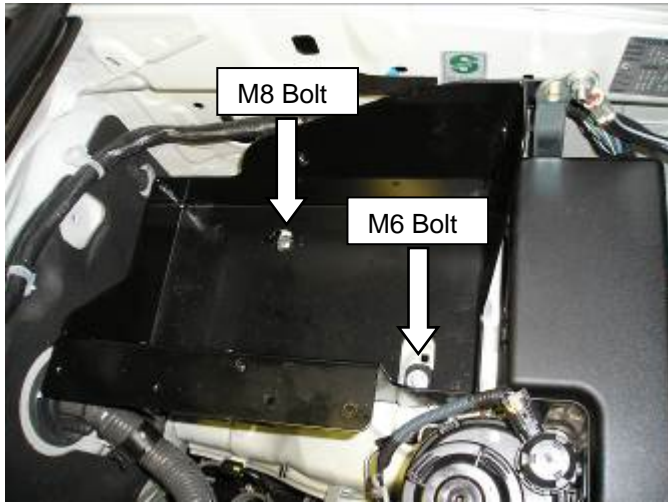


7. Place the battery tray in the engine bay ensuring that the tag on the side of the battery tray sits behind the earth bracket.

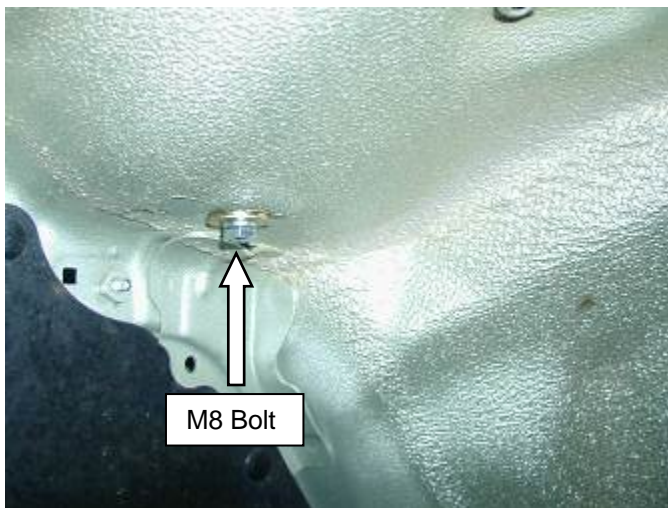


8. For turbo diesel models, attach the control module to the side of the battery tray using the original screws.

Note: There are 2 sets of holes on the side of the battery tray. The first suit pre-09 vehicles while the second suit post-09 vehicles.



9. Re-install the original bolt for the earth bracket. (do not tighten)
10. Fix the battery tray in place using a M6 x 20mm bolt, large M6 flat washer and M6 spring washer for the hole closest to the engine and a M8 x 20mm bolt, M8 flat washer and M8 spring washer for the remaining hole. (do not tighten)



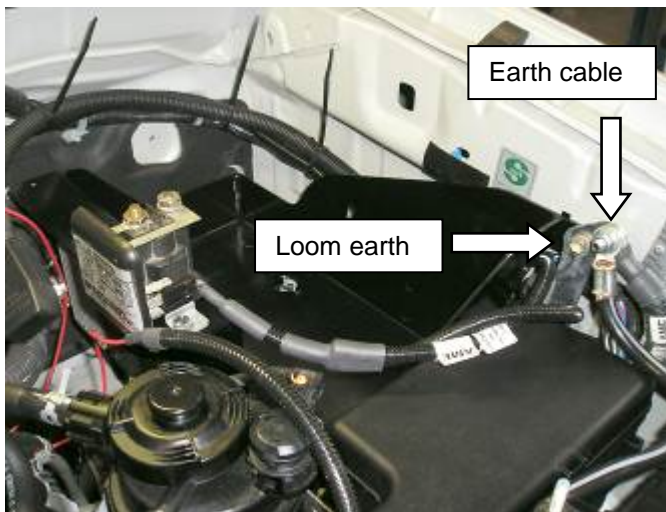
11. Using a M8 x 20mm bolt, two large M8 flat washers, M8 spring washer and M8 flange nut fix the lower leg of the battery tray to the guard. Insert the bolt from the underneath of the guard. Tighten all the bolts.



12. Run the earth cable (part No 6821125) behind the battery tray.



13. Attach the battery separator to the battery tray using two M6 x16mm bolts, M6 flat washers and M6 flange nuts.



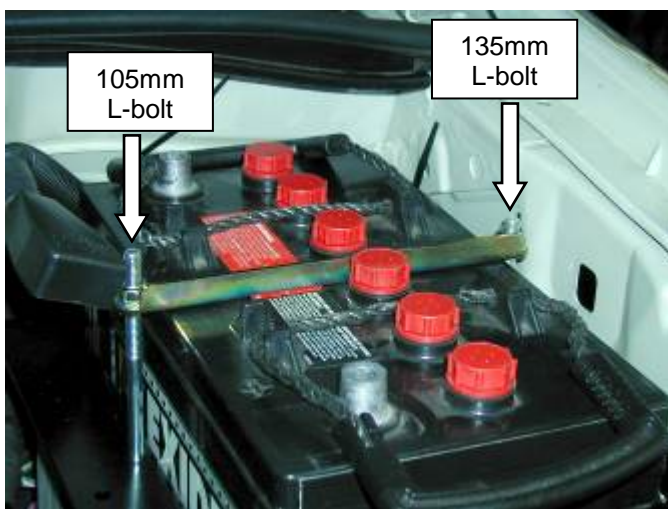
14. Plug the start assist loom (part No 6821157) to the separator as per wiring diagram supplied with the separator.
15. Attach the earth terminal of the loom to the bolt that holds the earth lead bracket.
16. Attach the earth cable to the terminal that the main battery earths to.
17. Cable tie both the earth cable and start assist loom to the main wiring loom of the vehicle.



18. Place the 135mm L-bolt into the hole on the outside edge of the battery tray. Use a piece of tape to hold the L-bolt in place.



19. Place the battery in the tray by tilting it towards the front of the vehicle.

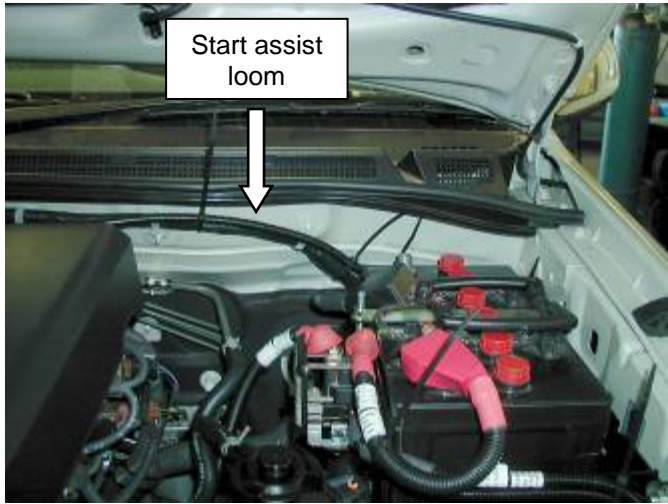


19. Secure the battery in place using the L-bolt already in place and the 105mm L-bolt for the engine side. Place the hold down clamp across the battery and fix with M8 flat washers and M8 nyloc nuts.



20. Connect the short positive cable (part No 6821103) between the auxiliary battery and the separator and the long positive cable (part No 6821139) between the main battery and the separator.

NOTE: Check the instructions supplied with the separator for correct wiring.



21. Run the start assist along the firewall of the vehicle and cable tie to the main wiring loom.
22. Follow the path of the wiring loom through the firewall grommet and into the engine compartment.



23. Remove the lower trim from the steering column. To do this turn the steering wheel 90 degrees and remove the two screws on the face of the trim. Also remove the screw on the lower part of the trim. Carefully remove the bottom half of the steering column trim.



24. Connect the start assist wire to the vehicles starting wire in the steering column (black with a white trace, check with a test light first) using the scotch lock provided. Re-assemble the steering column trim.



25. Connect the earth cable to the auxiliary battery.
26. Check the wiring and cable tie all cables so that they are clear of any sharp, hot or moving objects.
27. Re-connect the main battery and test the auxiliary battery system.

To test the system:

1. Ensure all wiring is as per instructions.
2. Record voltage from both batteries.
3. Start vehicle and measure main battery voltage. It should rise as charging circuit stabilizes. (Approx 13.5 to 14.5 volts) May require fast idle to initiate charge.
4. Separator will turn on after a delay when voltage rises over approx 13.2 volts.
5. Both battery voltages will now be the same as charge is directed to both.
6. Stop engine. Separator will stay engaged until voltage drops to approx 12.8 volts.
7. To test drop out, turn on headlights and separator will drop out due to main battery voltage falling.
8. If start assist is connected, separator will come in during start (auxiliary battery condition dependant) and will drop out when started until charge voltage reaches approx 13.2 volts as per 4 above.

