

86-95 Suzuki Samurai GM Alternator Swap Bracket

SKU# SEU-GMB Alternator not included with bracket.

(Instructions assume use of 10-12SI alternator and pigtail)

Note 1: Bracket also fits **89-98** Suzuki Sidekick / Geo Tracker / X90 1.3L & 1.6L engines

Note 2: These instructions also Include how to install: SKU# SEU-GM78K 78 Amp GM Alternator Kit

Revised 1-16-19

Installation Instructions

Alternator Sold Separately



[GM Alternator Kit](#)



CAUTION: Safety glasses should be worn at all times when working with vehicles and related tools and equipment.



Suggested Tools:

- Large Standard Screwdriver
- Combination Wrenches: 10, 12, & 14 mm
- Sockets: 10, 12, & 14 mm
- 6 inch socket extension
- Ratchet
- Wire Cutters
- Wire Strippers
- Wire Crimping Tool (for Solder-less Connections)
- Butane Cigarette lighter
- 2 -14 Gauge Solder less Butt Connectors with Heat Shrink Insulation

OEM Alternator Mounting Bracket Parts



Adjustment Bracket

Bracket-to-Water Pump Bolt

Adjustment Bolt

Alternator

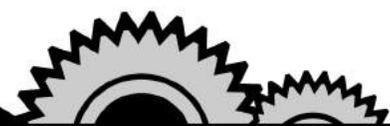
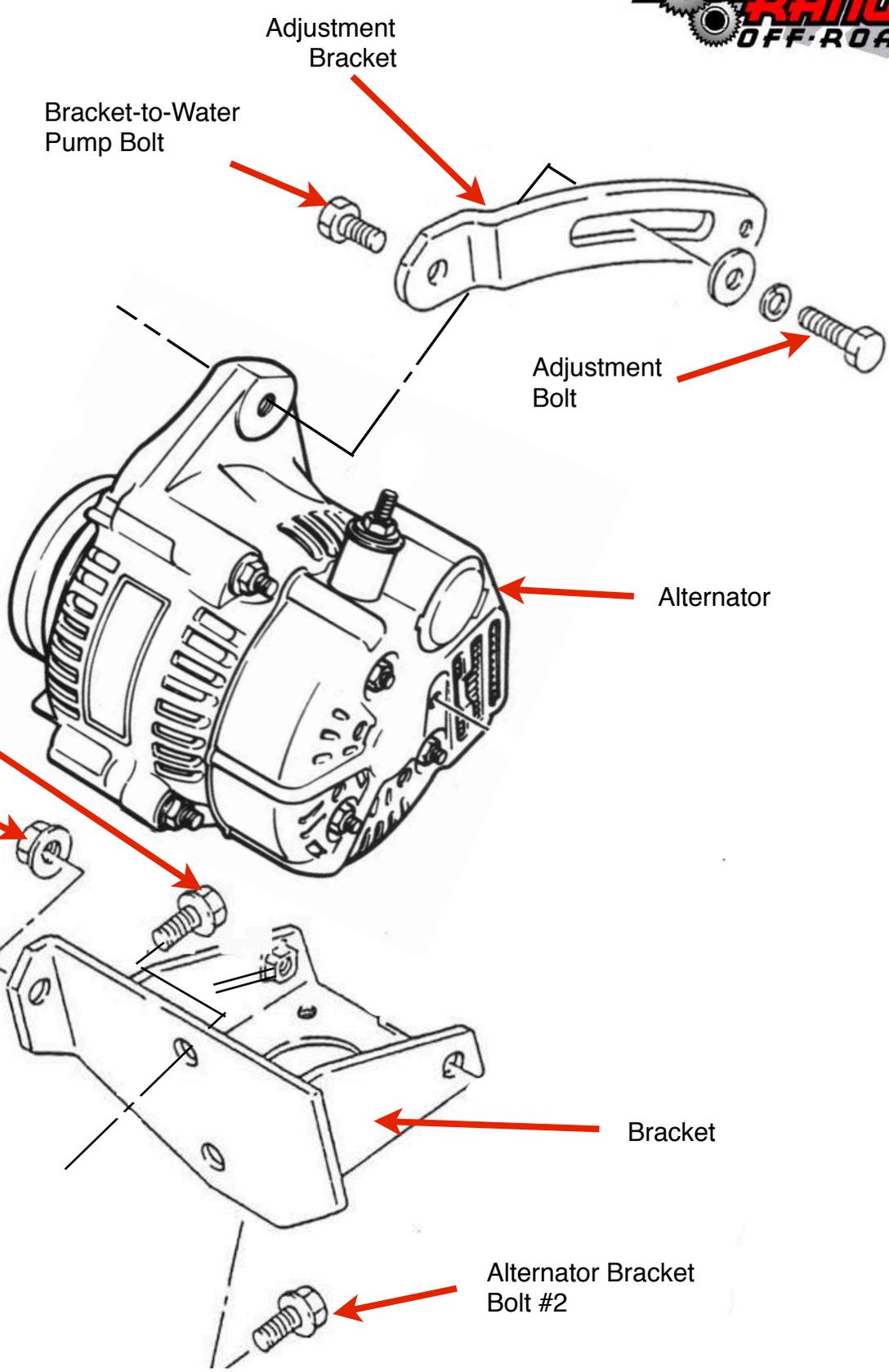
Bracket Bolt #1

Bracket Nut

Bracket

Figure A

Alternator Bracket Bolt #2





Step 1

Disconnect the negative battery terminal.

Note: OEM terminals require a 10 mm socket or box end wrench.



Step 2

Disconnect the two-wire connector by pressing down on the tab with your thumb and pulling.



Step 3

Remove the output terminal protective cover and slide it back on the wires.



Step 4

Disconnect the output wire using a 10 mm box end wrench.



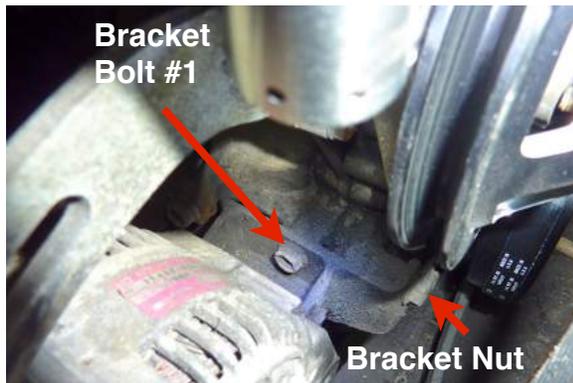
Step 5

Remove the adjustment bolt using a 14 mm box end wrench.



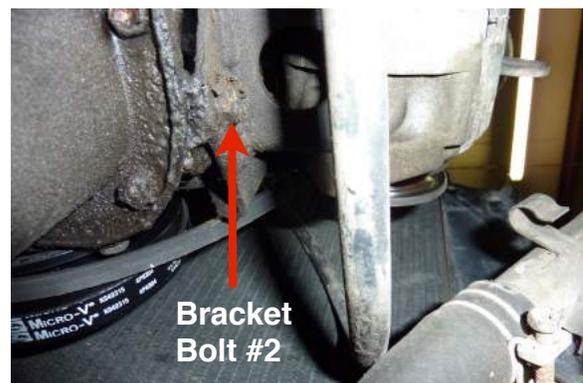
Step 6

Rotate the alternator toward the engine and remove the belt. Then rotate the alternator away from the engine in preparation for the next step.



Step 7

Remove alternator bracket bolt #1. (See Figure A) This can be done by using a 12 mm box end wrench from above the alternator or a 12 mm socket and extension from below the alternator. The bracket nut can be removed with a 12 mm box end wrench.



Step 8

Remove bracket bolt #2 (See Figure A) from below the vehicle using a 12 mm box end wrench.





Step 9

LOOSEN the adjustment bracket-to-water pump bolt using a 12 mm box end wrench. Rotate the bracket up out of the way.



Step 10

Remove the alternator.

Note: The lower bracket will come out with the alternator.



Step 11

Position the new bracket as shown and install the supplied (2) bolts, (2) lock washers and (1) nut. Torque to 16-22 ft. lbs.

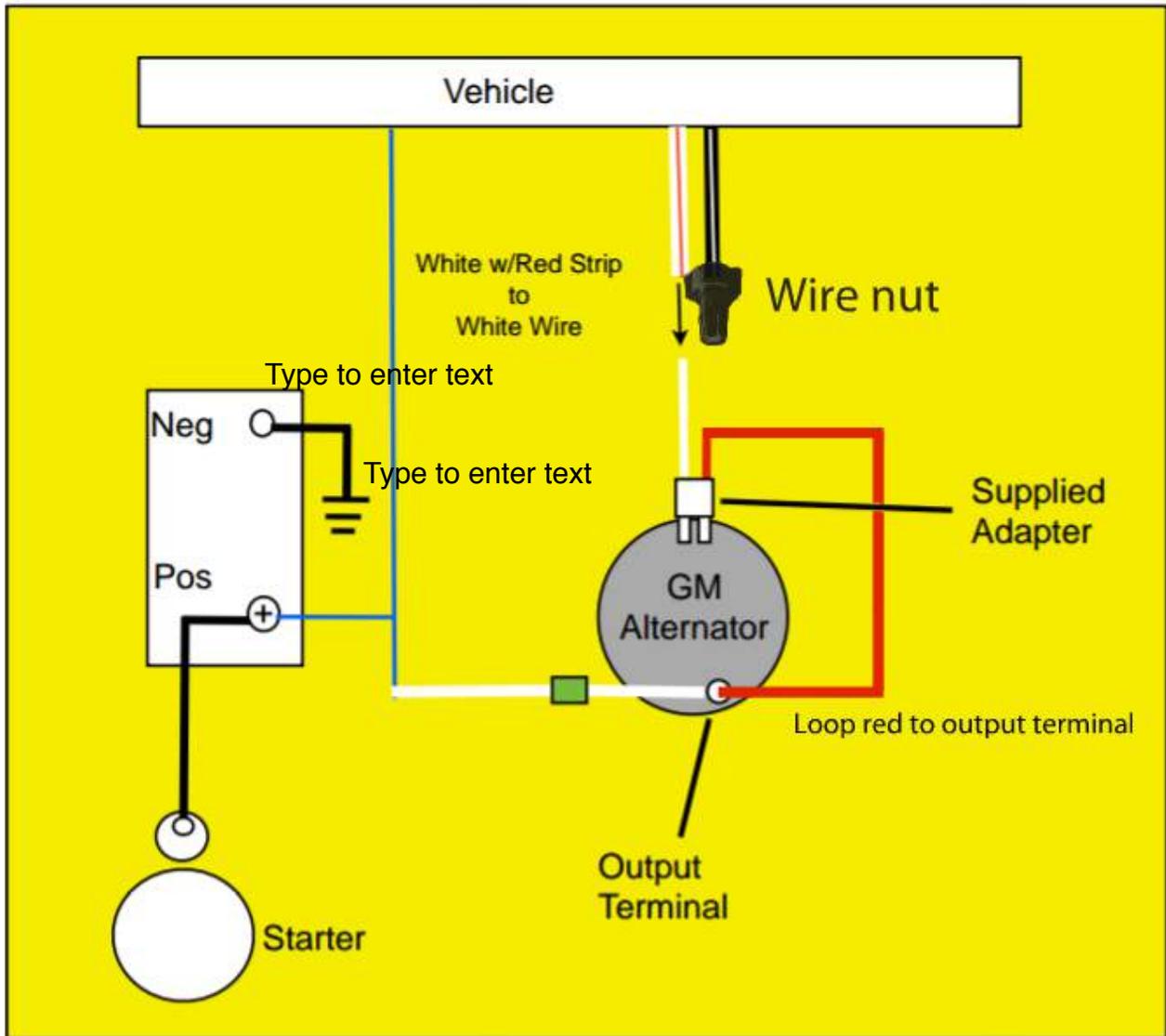
Note: Be sure the (2) lock washers are installed with the (2) bolts.



Step 12

Remove the OEM two-wire connector by cutting both wires about 3" away from the plug. (See Figure B for Wiring Diagram)

Figure B





Step 13

Peel back the black tape.



Step 14

Strip the insulation 3/8" from the end of both wires.

Note: Use the 14 gauge holes when stripping the wires.



Step 15

Install and crimp a butt connectors to both wires.



Step 16

Prepare the supplied plug for installation by stripping the insulation 3/8" from the end of both wires.





Step 17

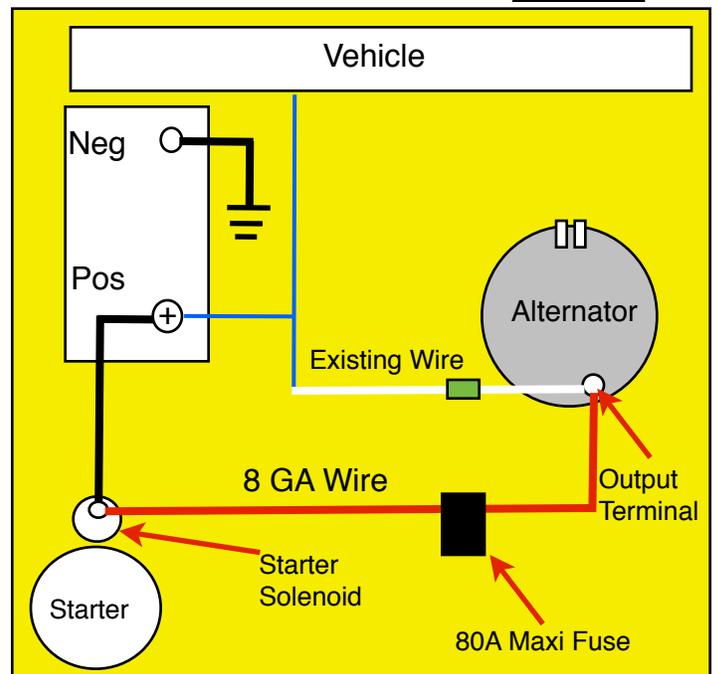
Insert the wires into the butt connectors. Be sure to match wires as shown in Figure B.



Step 18

Crimp both butt connectors to the GM adapter plug wires.

Figure C



Step 19

Shrink the insulation by heating it with a cigarette lighter.

Caution: Stop heating the instant the insulation shrinks tight around the wire. DO NOT OVERHEAT!

Optional Tip 19A

If this vehicle has (or will have) a lot of add-on electrical accessories (fog lights, sound systems, etc) that require additional electrical power, we recommend adding an 80A Maxi fuse with an 8 gauge wire between the output terminal of the alternator to the starter solenoid.



Optional Tip 19B

This shows the optional fused wire.



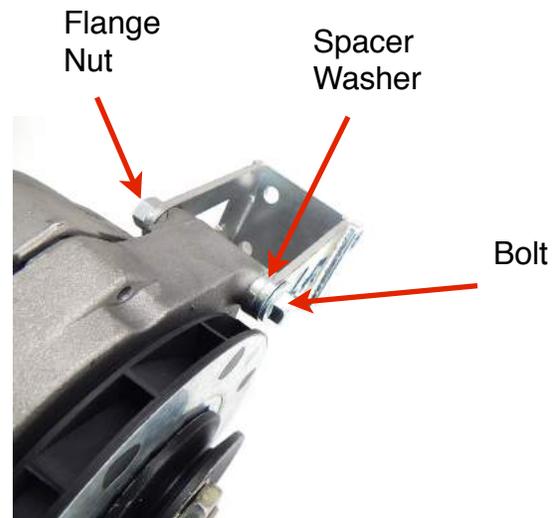
Step 20

Position the GM alternator in the bracket.



Step 21

Install the supplied pivot bolt, spacer washer and nut (See Next Tech Tip). Leave the nut hand tight for now.



Tech Tip 21

Be sure the supplied spacer washer is installed toward the front of the alternator.

Note: In some applications it may be necessary to place the spacer washer toward the rear of the alternator to accomplish correct pulley alignment.



Step 22

Connect the original (white) output wire to the output terminal of the alternator. Tighten the nut with a 10 mm box end wrench and reposition the boot.

Note: Do not apply excessive torque to this nut. It is easily broken or stripped.



Step 23

Install the GM alternator two wire connector. Push it into place until it snaps.



Step 24

Swing the adjustment bracket back into position and install the adjustment bolt.

Note: Leave the adjustment bolt loose for now.



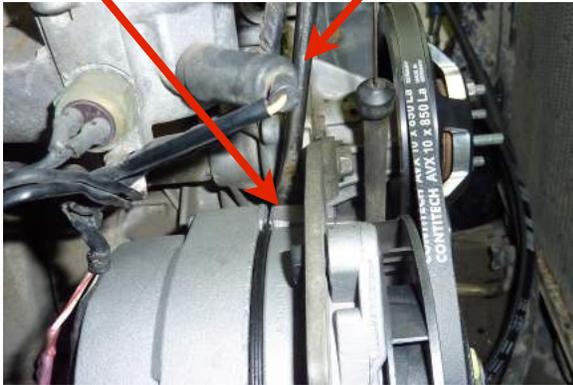
Step 25

Push the alternator as close to the engine as it will go and install the supplied alternator belt.

Note: Insure the new belt is properly routed around all the pulleys.



Pry Here Large Screw Driver



Step 26

Tighten the alternator belt by prying between the alternator and water pump with a large standard screwdriver. While prying on the alternator, tightening the adjustment bolt.

Note: Do not over-tighten the adjustment bolt. It is threaded into cast aluminum and easily stripped.



Step 27

Correct tension is checked by pushing on the belt midway between the crankshaft and water pump pulleys. It should deflect about 3/8 inch with moderate pressure. (See Figure D)

Note: Readjust the alternator if the belt is too loose or too tight. Belt squeal on initial start-up is an indication of a loose alternator belt. If a belt is too tight it can damage the alternator bearings.

Figure D

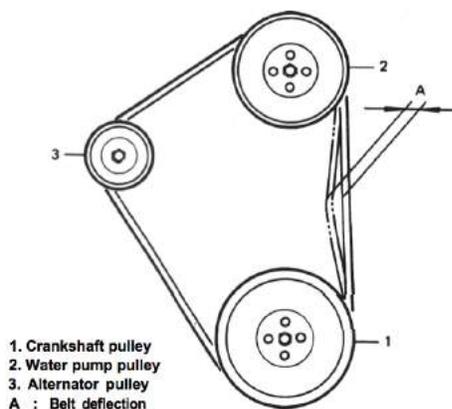
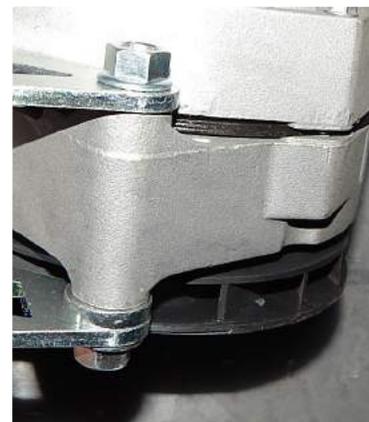


Fig. 10-21

Drive belt deflection (Under 10 kg thumb pressure)	6 – 9 mm (0.24 – 0.35 in)
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Step 28

Tighten the lower alternator pivot bolt and nut using a 14 mm wrench and socket from below the vehicle.



Step 29

Reconnect the negative battery terminal and tighten.

Step 30 Final Inspection

Check battery voltage with the engine off. If it is not at a full charge (12.4 to 12.6 V at room temperature) you will need to charge it with a battery charger. If it is above 12.4 volts start the engine. Battery voltage should increase (above 14 V) if the charging system is working. If the voltage does not increase, the charging system is not working. Check for loose or incorrect wiring or loose belt tension. If all looks as it should call LROR Tech Support at 1-801-805-6644.

As always, If you experience any difficulty during the installation of this product please contact Low Range Off-Road Technical Support at 801-805-6644 M-F 8am-5pm MST. Thank you for purchasing from Low Range Off-Road.



These instructions are designed as a general installation guide. Installation of many Low Range Off-Road products require specialized skills such as metal fabrication, welding and mechanical trouble shooting. If you have any questions or are unsure about how to proceed, please contact our shop at 801-805-6644 or seek help from a competent fabricator. Using fabrication tools such as welders, torches and grinders can cause serious bodily harm and death. Please operate equipment carefully and observe proper safety procedures.

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