

Alternator Upgrade

From ONE FAST MGB website

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Imagine sitting in your MGB at an intersection on a cold dark night (headlights on, brake lights on, heater fan on high), in a driving rain (wipers on high), listening to your favorite song playing from the CD changer on your stereo system and having your directional signal blinking away indicating your intention to make a left turn.

You can do this and not even think about how long it's been since you've last changed your Lucas alternator.

It can be done with little out of pocket and an hour (more or less) away from driving your "B".

A 1991-1995 Saturn 11 C-amp alternator will, with a few modifications, bolt right on to that beloved MG and give you years of heavy-duty service.

My last alternator change was about 9 months ago. In all fairness I have driven my 1980 MGB over 11,000 miles in those nine months. It has almost become my daily driver. I do have an AM/FM stereo with a 1 O-disc changer in the boot. So, I guess my Lucas is a little over worked. But, even in the days when I drove the MG less than 5,000 miles a year, I found myself replacing the alternator about every 18 -24 months. I had already decided to upgrade on my next replacement.

I installed the upgrade due to a late night visit by the "Prince of Darkness" on a 3-day weekend trip to Atlanta, GA.

I called my friend Darryl Beech of Charleston Import Automotive in Charleston, SC to discuss the alternatives. Darryl is a Bosch Product and British Car Specialist. His recommendation for the upgrade is the alternator for a '91-'95 Saturn SW1 SL Series 1.9 Liter 116-L4 FII SOHC. He has done this upgrade in his shop many times and with his encouragement, I am passing this on to you.

Part Numbers: Bosch -AL8657N or AL8657X, Delco -21020854 or 21022863, Lester (Scrap Yard) -8107 or 8115. The "First Build" of these alternators are 11 O-amp, the "Second Build" are 96-amp. (Important -This is a non "self-exciting" type alternator). Other than more than doubling your amperage, another benefit is these alternators are "shelf items" for most auto parts stores. No more "we can have it here tomorrow". Bonus! The Saturn unit is shorter than the Lucas. Therefore, easier oil filter changes.

Mine came from Advance Auto Parts, Part #PB1073. It sells for \$66.99 plus a onetime core charge of \$30.00. That's a bargain even with the core charge. Add \$2.00 for the replacement plug, Part # Caltrim 08627.

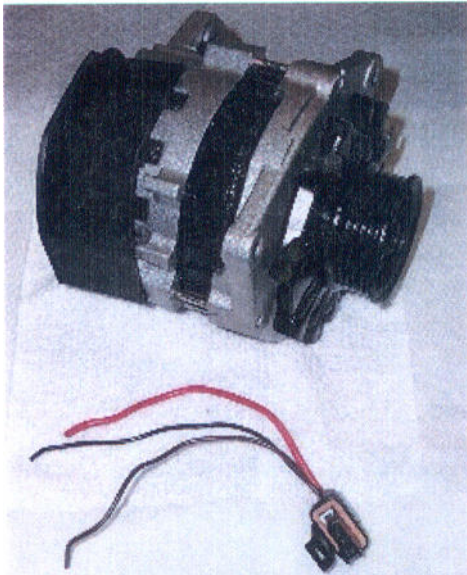
Advance alternators come with a lifetime warranty. My last Lucas came from Advance and the good folks there exchanged the Lucas for the Saturn and even refunded me a few dollars since the Lucas was \$95 and the Saturn only \$66.99. They understand customer service and I highly recommend Advance Auto Parts.

The Saturn unit is modified and installed as follows

Parts required -Saturn Alternator, 3-Wire GM Type Replacement Plug (also readily available) and a V Belt pulley with a 3 1/4" hole (available at your local auto electrical shop), your Lucas pulley cannot be used because the shaft is much smaller in diameter than the Saturn. I recommend that you take the Saturn Alternator to your auto electrical shop and have the V-Belt pulley fitted. (update: Although this was not the case on my **1980** Roadster. I have been told by a few folks that have made this conversion, a longer belt was needed, possibly due to repositioning of the alternator or pulley size variations) and in some cases, a fraction of an inch needed to be ground off of the adjustment link (brace/bracket) as it may, in some cases, be a bit long on the alternator side for the Bosch unit.

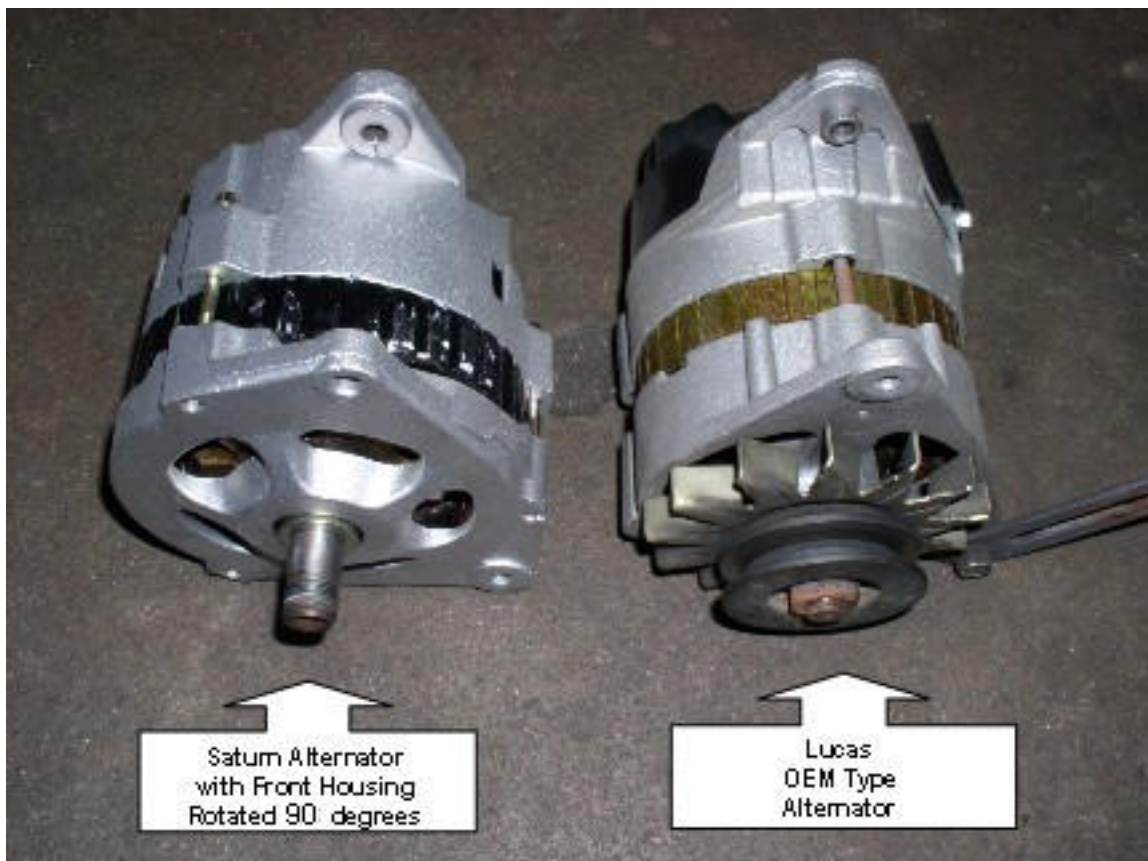
Tools Required -1/2" wrench, 5/8' wrench, wire cutters, knife or wire stripper and a set of reverse impact sockets (for removing housing bolts on Saturn Alternator)

BEFORE BEGINNING INSTALLATION. DISCONNECT BATTERY CABLES.



Saturn Alternator and Replacement Plug

Note that the mounting holes on the Saturn unit are approximately 90 degrees opposed to those on the Lucas. You must remove the serpentine pulley, cooling fins and the 3 housing bolts. Rotate the front housing approximately 90 degrees clockwise. When rotating the front housing, take care to lift the front housing only enough to rotate it. This will insure that no internal damage occurs. After rotation, replace the 3 housing bolts and tighten. The replacement plug is also shown in this photo.

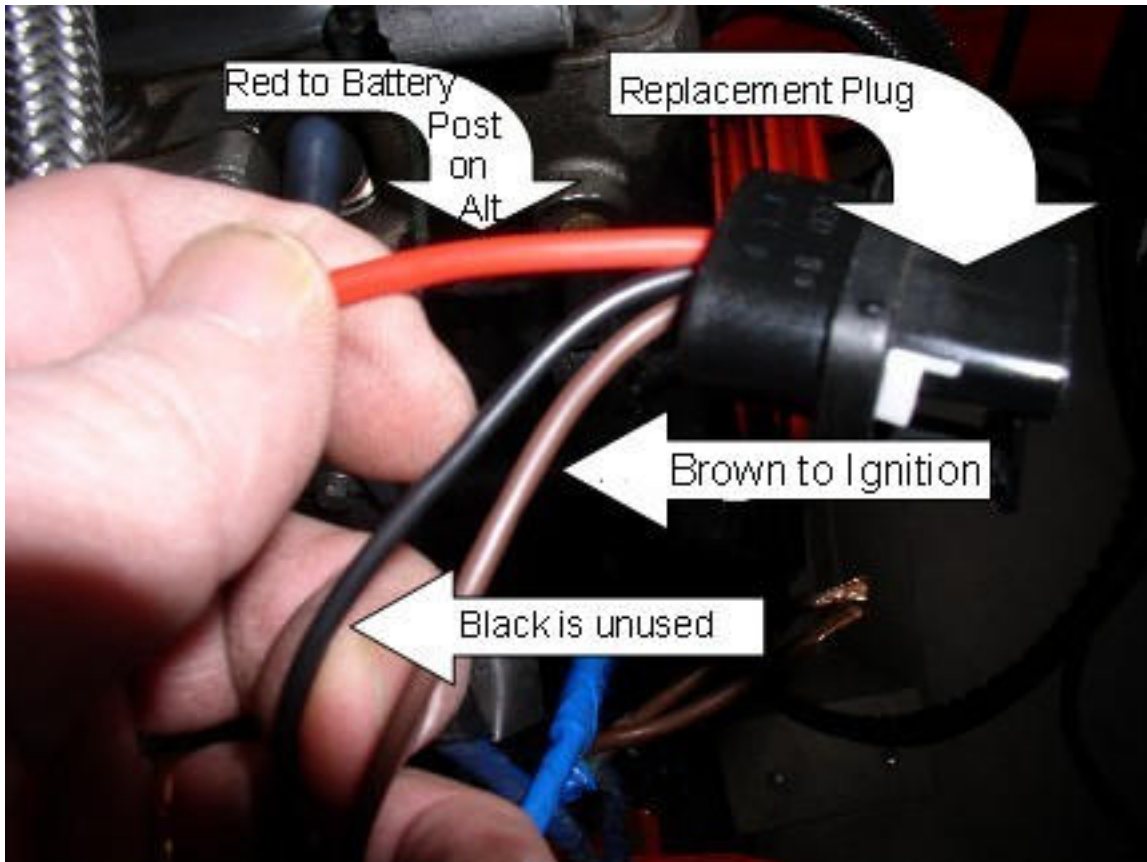


Saturn alternator with front housing rotated 90 degrees clockwise and Lucas OEM type alternator

Replace cooling fins and install v-belt pulley to Saturn Alternator

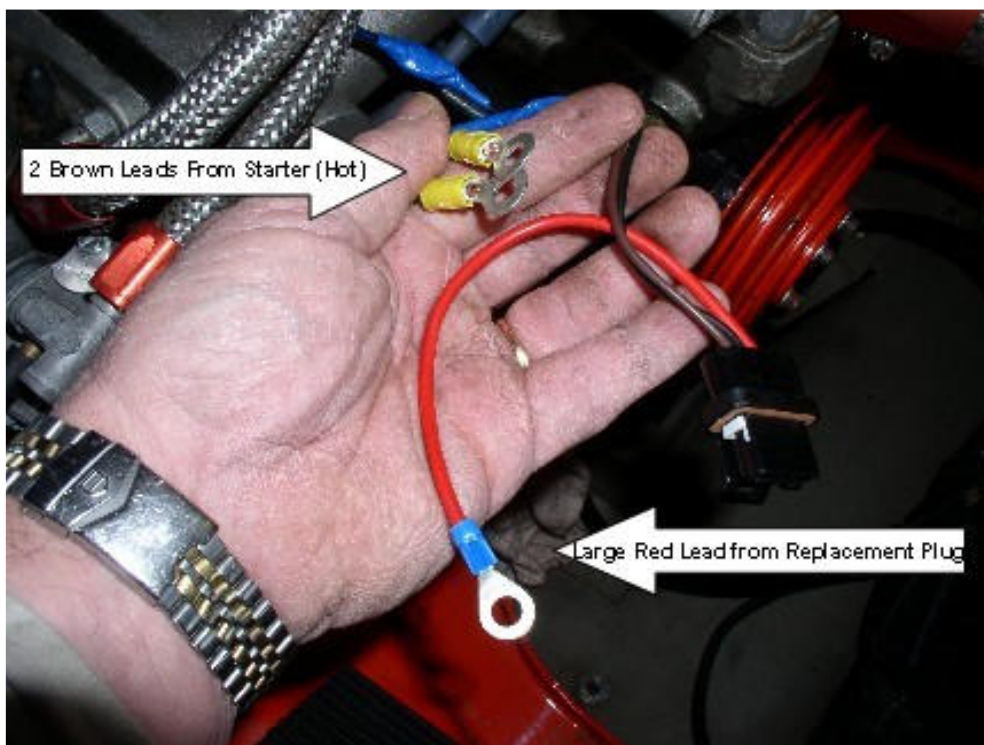
KEEP THE SERPENTINE PULLEY TO REINSTALL IN THE EVENT YOU NEED TO RETURN THE SATURN ALTERNATOR

Remove Lucas plug from wiring harness and attach the replacement plug as shown below.

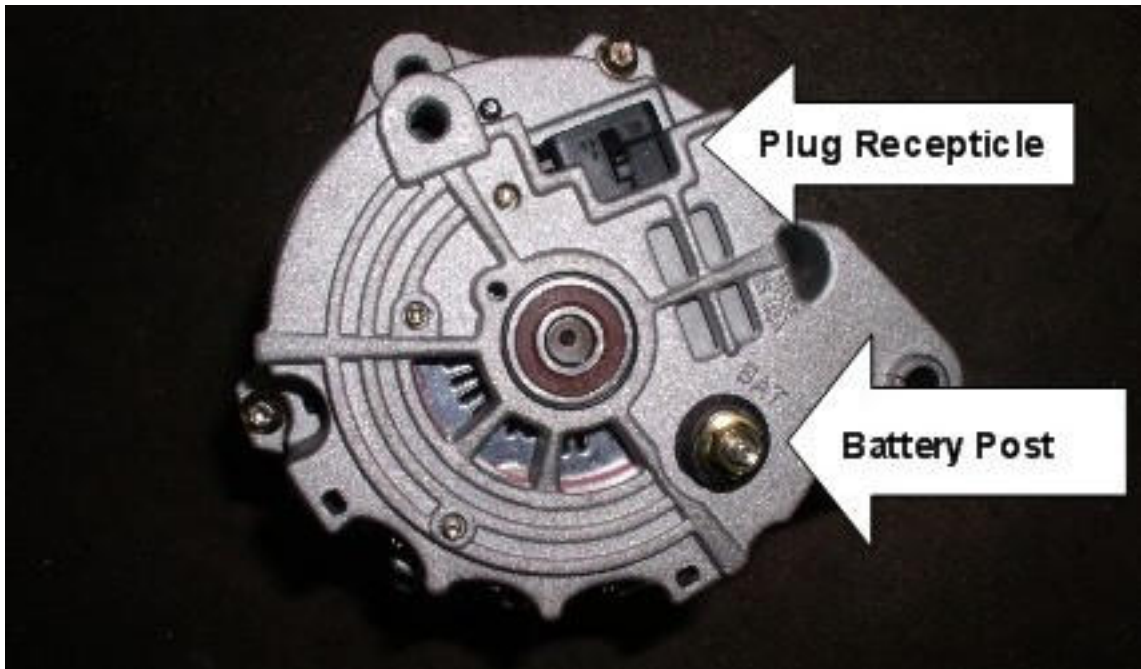


REPLACEMENT PLUG -Attach Brown wife to Ignition lead from harness (Brown wire with Yellow stripe). The large Red wire attaches to the battery post on rear of the Saturn alternator (See below). The Black wire is not used.

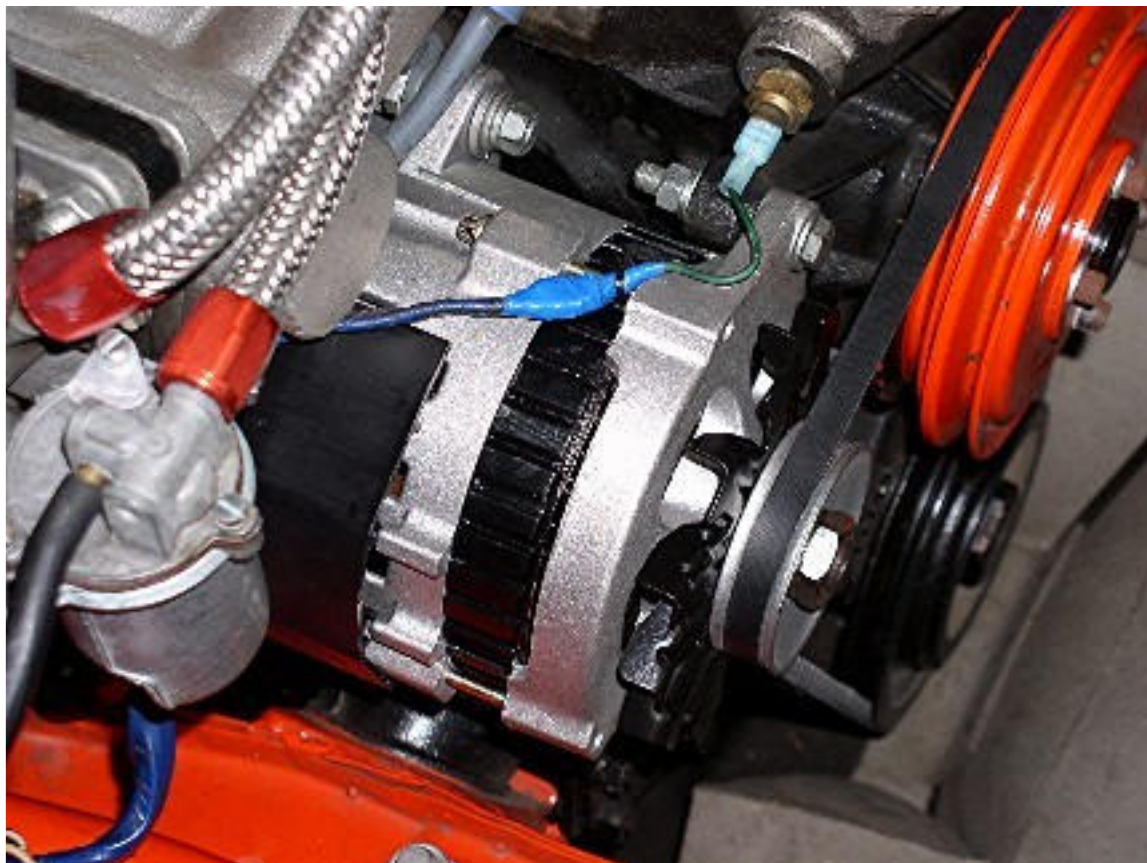
UPDATE: In the event a 3 wire replacement plug is not available, the 4 wire can be used. Attach the large Red wire to the BATT terminal at the rear of the alternator, attach the Green wire to the Ignition lead (Brown/Yellow). The other two wires are not used.



Attach Brown Starter Lead(s) (Hot) from wiring harness and Red wire from Replacement Plug to battery Post. Depending on the year model of your MG, there may be one or two leads from the starter.



Attach plug and install Saturn alternator to engine. Adjust belt tension to NMT 112" Belt Deflection between pulleys.



Reconnect Battery Cables. Go for a long drive, you deserve it!

Safety Fast!