

# GMALT V12

November 2008

This is a John's Cars retrofit to install a GM alternator on a V12. We also have kits to install a GM Transmission for the XJ6 and when your cat has used 9 lives, a complete Chevy V8 conversion kit to replace your V12. A full line of Jaguar and retrofit parts are stocked plus upgrades, Trick Rack Bushings, No Thump Trans Mounts and more!

## WHAT YOU NEED!KIT COMPONENTS

You'll need one of the following alternators:


Vendor	78 Amp	94 Amp
Chevrolet	1101307	1101308
Autozone	DL7273	DL7294
Car Quest	01-504-3	01-504-3
Chief 7273	7294-3	
Delco Reman.	321-247	321-266
Lester	7273-3	7294-3
NAPA	213-4350	213-4356
Pep Boys	7273	7294

- 1 \_\_\_\_\_ JCI bracket
- 5 \_\_\_\_\_ 5/16" x 1 1/4" bolts
- 1 \_\_\_\_\_ 3/8" bolt with nut
- 1 \_\_\_\_\_ 8 mm bolt
- 1 \_\_\_\_\_ Alternator pigtail


Bold letters indicate "wrench" size.

*Thanks for your purchase!*

## EXORCISM!

1. Disconnect the negative battery cable.
2. If you have replaced your Jaguar alternator before, you can skip to the next section.
3. Raise the car and be sure that you support the car securely so there is no chance of it falling on you. Goggles/safety glasses  are a great idea working under the car.
4. Loosen the two **9/16"** on the alternator adjusting rod. The number in **bold** print is the wrench size. Remove the **1/2"** bolt from the adjusting rod at the alternator.
5. Topside – Slacken **9/16"** nuts on air pump adjustment. **Note:** Air Pump/Smog Pump are equivalent terms.
6. Remove the two screws attaching the "L" bracket to the front of the cylinder head.
7. Slip the belt off and swing the air pump towards the fender. Loosen pivot bolt if necessary.
8. Remove the four **1/2"** bolts that attach the air pump bracket to the side of the block (adaptor casting).
9. Disconnect hoses, etc. to air pump and pull air pump away from pipe. Set assembly aside for now.
10. Unplug small brown/black stripe wire from the alternator. This wire operates the light on the dash.
11. Large brown wire(s): Unplug alternator or remove **10mm** nut securing the ring terminal(s).
12. There are two pivot bolts above the alternator. Remove both. They are **1/2"**.
13. With all bolts removed pull the alternator out.

## REVIVAL!

1. The original Jaguar Lucas, Motorola, or Bosch alternator unit has been banished.
2. The alternator plug in your kit has a brown wire with a ring terminal. This wire will attach to the alternator "stud" terminal on the back of the GM alternator, also marked "BAT". Don't tighten it yet.
3. If the Jaguar alternator has two tabs sticking up where the large brown wires attached, remove tabs from Jag unit and install on the GM alternator stud "BAT" terminal, 4 ft-lbs maximum. Don't miss the 

"We've got what they can't get!"




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## 2 — V12 GM ALTERNATOR

- brown pigtail. Plug in the white alternator plug and set alternator aside.
4. Remove and save the two 5/8" bolts at top of adaptor casting where the pump was attached.
  5. Clean the entire casting face area where you removed the smog pump bracket from block. 
  6. Thoroughly clean the block side of the smog pump bracket.
  7. Dirt or other obstacles will interfere with my bracket. Clean/remove so that my bracket fits flat between the original Jaguar adaptor casting and smog pump bracket. Clean the four 5/16" NC bolt holes.
  8. Set the new GM alternator in the car.
  9. Install the new GMALT alternator bracket using 4 new bolts in the kit but do not tighten.
  10. Install the two original 5/8" head bolts and tighten to 35 ft-lbs. Don't forget the lockwashers.
  11. Use the 3/8" kit bolt and nut to hang the GM alternator from the new bracket but don't tighten it yet.
  12. Attach the large brown wire(s) to the rear of the alternator taking care not to overtighten the nut on the stud. ABS equipped cars have a small black wire that attaches to the positive stud also. Torque is 4 ft-lbs. Be sure brown pigtail is in place and not touching the case.
  13. Plug the original brown/black stripe wire into the brown/black wire from the new alternator plug.
  14. Remove the four 5/16" bolts.
  15. Install the smog pump and bracket now. Don't forget to connect the pipe. Use the original lockwashers on the new bolts. Tighten to 15 ft-lbs.
  16. Swing the air pump back up into place and install the adjusting bracket. Install and adjust the V-belt.
  17. Relax the adjusting rod to match the hole in the GM alternator. Please be aware GM alternators may have metric or American threads in the flange. LATE MODEL 12si units use a larger bolt. You will need to get the correct bolt and then drill the adjusting rod.
  18. Adjust the belt tension as normal, secure hardware.
  19. Tighten the 5/16" bolt to 20 ft-lbs and the 3/8" pivot bolt to 25 ft-lbs.

### JR's TIP

**Bearings will fail prematurely if you overtighten belts which is easy to do with threaded adjustments. Also, belts will not last and might even sing!**

20. Reconnect the battery.
21. Start the car. The lamp on the dash should extinguish itself. You may have to give it a bit of throttle to make it go out. This is normal.

## TROUBLESHOOTING & OTHER NOTES

Alternator failure is often caused by discharged batteries and/or poor connections. If your battery is down it would be wise for you to put it on a slow charge to bring it to a full state of charge before starting the car with your new alternator on it. Be sure that all battery connections are clean. Check at trunk floor and the ground straps between the frame/mount/oil pan are clean. The positive terminal connections at the firewall must be secure on both sides. Grab them, wiggle them around and if they move, then they need to be removed, cleaned and tightened. You should check water regularly. Jaguars are prone to eat batteries. A glowing Alternator Light with the key "off" is an indication of diode feedback. The GM alternator has an internal radio capacitor, you can ignore the Jaguar unit that was external. Check bolts and belt tension in 1000 miles/30 days. Thanks again.

GVINST

