ALTERNATOR
P/N 197-300 & 197-301

DANGER! Eye protection must be worn when working on batteries.

WARNING! With the engine off and before replacing ANY electrical components, remove the negative battery cable with a socket wrench.

WARNING! Remove any jewelry before working on ANY electrical system.

NOTE: Always use a quality voltmeter to avoid short circuits.

ALTERNATOR INSTALLATION:

IMPORTANT! Before starting your installation, check the condition of your battery. The battery must be in good condition and fully charged before replacing the alternator.

1. Disconnect the negative (-) battery cable.
2. Identify and tag all leads when removing the old alternator. Install them on the same terminals of the new alternator.
3. Ensure all leads are hooked back up or contained where they cannot ground.
4. Torque all fasteners as specified in bracket/engine instructions.
5. This alternator may have more terminals than the alternator it is replacing had or used. It will function properly by only hooking up the leads that were used on the alternator being replaced.

Alternator's Amp Rating						
125-150	8 GA.	6 or 4 GA.	4 GA.	4 GA.	2 GA.	2 GA.
105-125	8 GA.	8 GA.	6 or 4 GA.	4 GA.	4 GA.	4 GA.
	0-4 FT.	**4-7 FT.**	**7-10 FT.**	**10-13 FT.**	**13-16 FT.**	**16-19 FT.**

When wiring the alternator, connect the "L" terminal labeled on the alternator to switched voltage that is "on" when the key is in the run position. There must be either a charge indicator light (standard dash bulb) or a 560 ohm, 1/2 watt resistor (Radio Shack #271-1116) in-line on this wire. Holley's part # 197-400 already has the resistor in line.

HELPFUL HINT: The rear alternator housing can be rotated relative to the front housings. If desired, this will let the charge wire and harness plug to be rotated out of sight or away from interferences. Contact your alternator manufacture or an alternator shop for "re-clocking" procedures.

IF INSTALLING AN AFTERMARKET PULLEY:

WARNING! Use protective gloves and eyewear for installing an aftermarket pulley.

1. Remove the alternator pulley, rotating pulley nut in a counter-clockwise direction. An impact wrench is recommended for the process.
2. Install the new pulley and nut.
3. Torque the pulley nut to 70 ft./lbs. Do not overtighten.

SYSTEM CHECK:

1. Apply some load to the charging system, such as high beams and A/C. Rev the engine to 1500 RPM. Use a voltmeter to measure the DC voltage from a metal point on the alternator case to the negative (-) battery cable. If your reading is higher than 0.10VDC, this indicates you have a poor ground connection. Check the ground path, paint or powder coating on the brackets, engine ground strap, and ground cable from the frame to the battery (Figure 1).

2. With the engine running at 1500 RPM and the battery fully charged, measure the voltage at the battery (+) and ground (-). Your voltage should be 13.8 – 14.5VDC. If your reading is above this, it could mean a defective alternator. If your reading is below 12.7VDC, then the alternator is not functioning or supplying the amperage needs of the vehicle at engine speed.

3. With a voltmeter, measure the voltage drop between battery (+) and alternator output post (Figure 2). Your voltage should be less than 0.40VDC. If it is higher, it may be poor connections between the alternator and battery. It could also be undersized battery cables, loose or improperly crimped terminals, or corroded connections.

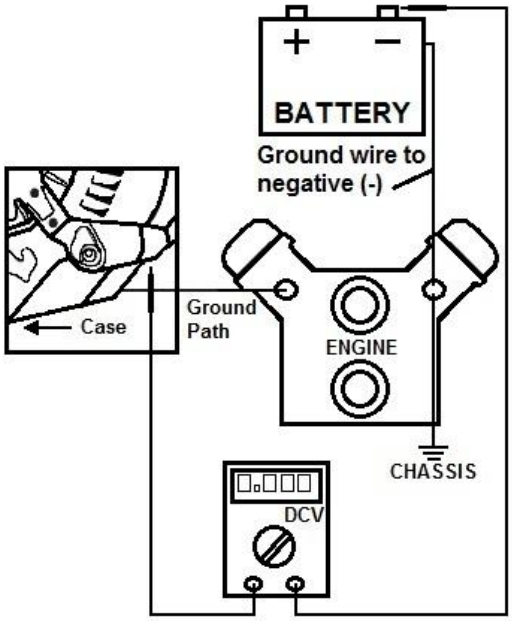

Figure 1

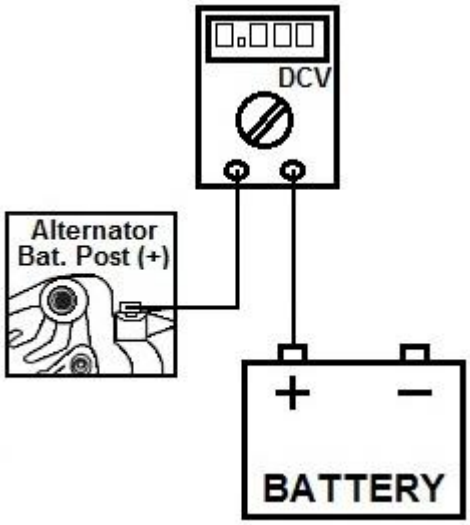

Figure 2

TROUBLESHOOTING:

PROBLEM	EXPLANATION
Voltage low when cruising or idling	This can be caused by aftermarket pulleys that allow the alternator to run at a lower RPM or the alt is too small and can't supply enough amperage at a low RPM. Alternators are designed to have a power curve that increases with RPM, low RPM low output high RPM high output.
Voltage tests good at alternator, but low at battery & fuse box	This can be caused from a bad electrical connection between the alt and the test point or a wire that is too small. Check power and ground connections to be sure they are free of anything that would cause interference in the connection (rust/paint/loose connection) and verify that the wires used are large enough for the application.

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