Subject: Re: Alternator noise
Posted by bump_ride on Mon, 24 Nov 2008 21:44:49 GMT
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Here's how you wire it up:Connect the switched battery plus (like through the accessory switch) to one side of a coil and connect the amp power input to the other. All power flows through this coil. Then hook the capacitor across the amp input (after the coil, not on the battery side). The big caps are polarized, so be sure to observe proper polarity.First rule: Use the biggest coils and caps you can afford. The bigger the better. You can use a single coil/cap for power to both lines but if you separate them you'll have more coil and cap, see rule 1.Second rule: Big electrolytic caps need smaller bypass caps. The big beefy ones have too much internal inductance so the high freq spikes aren't shunted to ground as well. They store a lot of power and smooth out fluxuations from power surges like when you need a big thumping bass note. That's their job. Add to them a smaller (like 1uF) poly cap across them to dump the whine to ground.Third rule: Don't forget about your ground connection. A good ground is the most important thing. Each component (head unit, amp, CD changer, etc.) should be connected to ground at a single point. Don't put one ground wire to the firewall, and another to the trunk. That's what most people do and it is what causes most noise. If you wire it up that way, all the noise filtering in the world won't help. A single point ground connection is the most important thing.