Subject: Re: switching power supply used in amps
Posted by Anonymous on Thu, 25 Jul 2002 19:47:04 GMT
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They do this in car audio amplifiers, it's a common practice goingback 20 years. Do these car audio amplifier lack sonicallyvs. home audio amplifiers? noway. Why would they want to do this in home/pro audio amplifiers?One reason is space. Since you are dealing with 50/60hztransformers you need "big uns" to get some high powered amplifiersplus "big uns" transformers are very ineffecient, alot of poweris lost to heat.High frequency switching power supplies done correctly canreduce size because they require a much smaller transformer(toroidal typically), they are more effecient. The reductionin size is because they switch the transformer on/off notat 50/60 hz but perhaps anywhere from 20khz - 100khz dependingon who designed the circuit. Some people may argue that switching noises may leak into the audiosignal path. Sure, if the amplifier is poorly designed. Plus,can your ears hear this noise ?I've done car audio for 10 years and didn't experience any leakagenoise problems, even with cheaper amplifiers.Still not sure? go listen to one and be 100% sure.Oh, the reason most home amplifier companies don't do thisis because of cost. It's cheaper to just buy a beefy 50 poundtransformer, add a bridge rectifier and some storage capacitorsand the power supply circuit is done and it's realiable.Ask the same designer to convert to a high frequency switchingpower supply and he will say "oh no, now I have to do somereal engineering work".