Subject: FRIED TWEETER!!!!!!!!!!!! OUCH!!!!!!!!!! Need help with tweeter protector!!!!
Posted by Don17 on Mon, 06 Jan 2003 21:05:34 GMT
View Forum Message <> Reply to Message

Yesterday, squealing from a faulty cable caused the diaphrams of the two compression drivers I love- The JBL 2416H and 2426H. Besides needing to replace the cable I found it necessary to install some kind of portection for my tweeters. I ran to the local automotive parts store and bought some 12 volt light bulbs like the ones I saw in the JBL MR series boxes I took apart Now I tested the system with some cheaper pyle tweeters in the enclosure with two lightbulbs and as I switched on the CD horn EQ on the back of my amp when the amp startedDelivering about 45-50% of it's power, the lightbulb started glowing dimly, and as the amp neared clipping, the bulbs started glowing with high intensity.Do you think this method is effective as a last resort with use along with a compressor limiter in protecting tweeters????If you want to know the overall specs of the system?? just askRemember I'm only 17, i have quite a smalll budget especaially in these times and i'm trying to gain as much experience possible in the field.-Thanks-Don

Subject: Protection devices
Posted by Wayne Parham on Tue, 07 Jan 2003 02:18:57 GMT
View Forum Message <> Reply to Message

Using light bulbs is a common method of power protection for tweeters, and it works pretty well. I've used various methods over the years, including fast-blow fuses, light bulbs and surge clamping diodes. Each of them work very well when properly implemented.The important thing with fuses or light bulbs is to find one that will increae resistance or open before the voice coil of the device you intend to protect overheats. And with surge clamping diodes, you want a device that will clamp below the voltage where current is excessive in the voice coil. In this case, you also need an amplifier that is capable of short-circuit protection because when the surge clamping diode fails, it will present a short circuit to the amplifier. So the amp must crowbar itself or it will be damaged by the speaker protection circuit.None of these devices are expensive at all, so being on a budget is not really an issue. In fact, the way to save money here is to spend some money. You'll want to make sure and test your protection device with a destructive test - Blow a couple on purpose and find out where they blow. Make sure it blows before the protected device does.