

Low EMF Mercedes Cars: Questions and Answers

by Jens Bil

These are common questions regarding using older Mercedes diesel cars for people with severe electromagnetic hypersensitivity (EHS). It is strongly recommended to read the articles “Introduction to Low EMF Cars” and “Advanced Low EMF Cars” before buying and modifying one of these cars.

Q. Who should consider buying these older diesel Mercedes cars?

A. People who are too sensitive to drive any other vehicle. Many with EHS do fine with some models of trucks and SUVs, which often have lower radiation levels than passenger cars.

Q. Why not use a Mercedes, even if not strictly necessary?

A. Several reasons. First, they are now well over twenty years old, so they break down more often than a newer vehicle. Parts and repairs can be costly. Their exhaust is also a problem, as it's diesel. If the alternator is removed, there are limitations on how it can be driven that will take some getting used to.

Q. What models are suitable?

A. Any diesel Mercedes car made from 1981 through 1985 should work. That is, models that have a “D” in the model name, such as the 300D and the 300SD. The station wagon is best avoided, as it has a poorly designed suspension. The 240D has a small engine that does not work well in mountainous areas.

Q. Why are these cars better than other models?

A. For several reasons, including:

- no spark plugs
- no ignition coil
- no electronic ignition
- no electronic control systems
- no electric fuel pump
- the alternator can be disconnected

Q. Are there any non-Mercedes cars that can be used?

A. Not really. For a detailed discussion of other car models, see the “Advanced Low-EMF Cars” article.

Q. Do I need a Mercedes mechanic to maintain my car?

A. No, these cars are pretty simple and can be maintained by even a backyard mechanic. There are only a few areas that really require special knowledge. For those cases, call a shop specializing in Mercedes cars, they may give the answer over the phone.

Q. What areas would require a Mercedes specialist?

A. Primarily the transmission. If it goes out, do not let a local shop rebuild it. It is cheaper in the long run to get a refurbished transmission shipped from a specialty shop and let your local mechanic swap it in.

Q. How long can I expect my car to last?

A. Diesel engines last a lot longer than gasoline engines. Expect at least 300,000 miles, perhaps as much as 500,000 miles (500,000 km to 800,000km).

The car itself is built very solidly, with good-quality parts, but expect to have a lot of upkeep. These are old cars, after all. It is essential to have a local mechanic, and membership in AAA for towing. If you live in a rural area, subscribing to an extended towing service, such as AAA Plus is highly recommended. I once had to tow my car more than a hundred miles.

Q. I can measure a lot of EMF in the front of the engine compartment — why is that?

A. That should be the alternator. Disconnecting the two wires going to it will reduce the EMF level in the rest of the car. There will always be some EMF near the alternator regardless, as the spinning metal parts have been permanently magnetized. It is not practical to completely remove the alternator, as it shares a belt with the water pump.

Q. What type of battery charger should I use?

A. If you disconnect the alternator, you will have to charge the battery with either a battery charger or a solar panel. Any automotive battery charger will work, no need for a fancy one. A big one is not better, as you cannot charge the battery faster than about 10 amps anyway. All battery chargers send out a lot of EMF, so make sure to stay well away while it is plugged in.

Q. What type of battery should I use?

A. If you only drive locally and recharge right away when you get home, you can use a regular battery. However, the battery may only last a year or two, especially while you are getting used to driving an alternator-less car. If you mount a solar panel on the car, you can use a regular battery, and drive all day, as long as the sun shines.

If you need to drive an hour to go to town, or have to start the engine more

than three or four times in a day, or drive where there are many traffic lights, then a regular battery is not good enough. You will need something better, such as an Advanced Glass Mat (AGM) type battery. One good choice is the Optima Yellow brand, available from many auto parts stores.

Q. How far can I go on a charged battery?

A. It takes very little electricity to just go down the highway. And the speed does not matter at all. What consumes electricity is starting the car (especially when it is cold) and using any of the lights (brake lights, head lights, turn signals). You need to really watch all of those. If you drive in city traffic, with many stops, that takes a lot of electricity for the brake lights. You can probably start the engine three to four times on a regular, full battery, maybe five times. With an AGM battery, you can do 10-20 starts, maybe thirty.

Q. I need to go an hour to town and visit several stores. I'd also like to drive much further to visit a friend. What should I do?

A. There are various options:

- You can install an extra battery in the trunk of the car;
- You can stop on the way and recharge the battery, but it can be difficult to find "public" electrical outlets;
- You can install a solar panel to charge the battery. This is the best option. With care, you can even do interstate travel with a solar panel.

Q. Can I do interstate travel with a solar panel?

A. Yes, I have driven between Texas and Arizona several times. But it can only be done in full daylight. I did one such trip in December. There was little daylight available, it took me four days and I had to beg electricity off a couple of gas stations, etc. Plan on only doing such trips in the warm season where the days are longer and the sun higher in the sky. The solar panel works best when the sun shines directly down on it, and much less when the sun is at an angle, or when it is cloudy.

You will need to plan ahead where to stay each night, or get serious about finding a place in mid-afternoon. There is not power enough to start hunting around at sunset, unless you have a larger battery bank in the car.

Q. Can I drive on rainy days?

A. Try to avoid rainy days whenever possible. Headlights and wipers consume electricity. If you are caught in a rain shower, try to just run the parking lights. Or turn off the road and wait it out.

See, also, the next question.

Q. Can I drive at night?

A. Not really. The headlights consume too much electricity. A short drive with the lights on now and then is fine, but make sure to charge the battery as soon as possible.

If you really need to drive at night or in the rain, consider adding extra batteries to the car. But it must be done correctly. I have one battery up front, which only starts the car, and two separate marine/RV batteries in the trunk. See the “Advanced Low-EMF Cars” article.

Q. Is it important to keep the battery full all the time?

A. Yes, it is very important. A battery that is only partially full will wear out much faster. The chemical process that gives off the electricity from the battery will eventually also destroy it through what is called sulfation. Sulfation happens much slower on a fully charged battery.

Q. How do I know if the battery is full or not?

A. Knowing how your battery is doing is very important. Both for saving the battery from premature death, and to avoid getting stuck with a dead battery that can't start the engine. You will need to install a volt meter on the car's dash — and keep an eye on it. It takes some experience to understand exactly what the meter is saying; it only gives a reliable reading when no electricity goes in or out of the battery.

Q. What should I do if the battery is flat and can't start the engine?

A. Just do like everyone else in that situation: get a jump start. There is probably enough electricity left in the battery to get you home, once the engine is started.

I always keep a jumper cable, a battery charger and a 100-foot (30-meter) extension cord in my trunk. And I have had to use them. A hefty “jump start power pack” may be a good alternative.

Q. Can I install a switch, instead of disconnecting the alternator completely?

A. Yes, some people have a switch so they can engage the alternator if they are on a long trip and the battery is getting low. However, there are two very important issues:

The first issue is that there **MUST** be two switches installed, not just one. One switch turns off the power going to the electromagnet in the alternator. The second switch turns off the connection between the alternator and the battery. The second switch must be placed inside the engine compartment. If this is not done correctly, you will not see much EMF reduction when switching off the

alternator.

The second issue is that the position of these switches can only be changed with the engine turned off. If the engine is running while flipping either of the switches, a shockwave will be generated each time, which eventually will wear out the windings in the alternator. One EI did ruin his alternator this way. And, of course, both switches must be on or off at the same time.

Q. What about spare parts?

A. Spare parts are widely available for these cars. A Mercedes dealer can get them, but at a high price. A much cheaper option is to buy them from third parties and have a local mechanic put them in. Even more cost-effective is to buy a wreck as a parts car.

Third-party dealers in the USA are:

Performance Products	1-800-243-1220
Buy MB Parts	1-800-741-5252
Tristar	1-800-522-4737

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