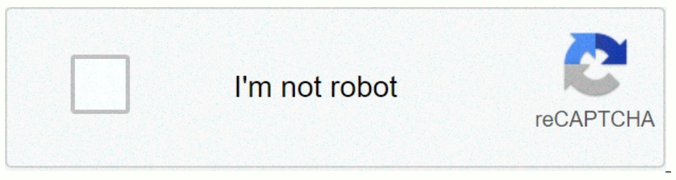

Continue

Orvis watch battery replacement

Replacing a car battery is relatively easy and can be part of a regular car maintenance schedule. While there seems to be a dizzying array of batteries on the market, Consumer Reports says that three companies produce most of the maintenance-free batteries used in the United States today – Johnson Controls Industries, Exide and East Penn. Each company produces batteries that are marketed by different companies under different names. The brand on the battery ultimately doesn't matter. What does matter is age, cold cranking amplifiers, reserve capacity and group size. Age: Batteries usually come with a manufacturing date on them, and they must be sold within six months of that date. Check the date carefully before you buy. The date is often encrypted. Most codes start with the letter stating the month: A for January, B for February and so on. The number indicates the year, as in 0 for 2000 or 1 for 2001.Group size: This measure determines the exterior dimensions and where the battery terminals are located. Make sure that the group size of the battery you buy matches that of the battery you're replacing - otherwise you end up with a battery of a different size and configuration than your car can use. Fortunately, most battery sellers group them by the car to make, model and year. Cold cranking amplifiers (CCA): This is a measure of a battery's capacity to start a car at 0 degrees Fahrenheit (-17 degrees Celsius), when the engine oil is thick and the battery chemical potential is low. The higher the CCA, the better it will start out in the cold. Most batteries list this on the battery sticker, although some list only CA, or crank amplifiers. CA is measured at 32 degrees Fahrenheit (0 degrees Celsius) and is usually a higher number. However, it gives a less accurate assessment of how well the car will start out in the cold. Spare capacity: This is the hardest number to find, but one of the most useful. It indicates how long your car can run out of battery only if the dynamo suddenly dies. It can usually be found in battery literature in the store or online, or occasionally on the battery itself. Follow these rules and you should be able to throw the worst weather a bad battery can throw at you, and find a reliable new one when you need it. Ad As mentioned, this information applies to regular car batteries that help get a car to work. If you are driving a hybrid or plug-in hybrid vehicle, batteries are also an extremely important element of the powertrain. The general rule of thumb for hybrid car battery replacement is 10 years, but there's a lot of variation on that rule, according to Green Car Reports. That's there are different types of batteries out there for different vehicles, and also because many of these vehicles are fairly new, so there's just not enough data to show how they hold up over time. Your best bet is to expect the battery of your hybrid car in about 10 years. That said, at that point you are tempted to just buy a new hybrid car because the battery technology for this segment is getting cheaper and more efficient. Originally published: Oct 5, 2009 Page 2 Own a car long enough and there's a good chance your car will develop problems of some kind. And one of the most common and most annoying problems is vibration. What's more, it often creeps up on you gradually and subtly – until one day you find yourself wondering how you ever put up with such annoyance. Then you might be wondering, what does it mean when my car vibrates? While there is no substitute for assessing someone with a comprehensive automotive background, you often limit the source of car problems that occur relatively frequently, such as vibrations. Ad The fix can be something relatively cheap and simple, such as a tire rotation or balance. Or it may point to more serious car problems - slightly more expensive, such as steering or suspension problems. Diagnosing car problems in the early stages may seem like a hassle at first, but you should remember that it can often save you from bigger car problems (and bigger repair bills) on the road. If your vehicle shakes, shimmies or vibrates out of the ordinary, or if you're just interested in preventing these conditions in the first place, keep reading. This article will take a look at the top 10 reasons behind a vibrating car. Content Sometimes a shake or skin comes out of the engine compartment because the engine doesn't get the right amount of air, fuel or spark it needs to run smoothly. Symptoms that may indicate such an engine-related case of the shakes are the following: Ad Shudder or shock occurs during accelerationStaccato shaking, as if over a highway rumble strip, within a specific speed rangeCar starts and drives fine for a while, but later begins to shake these symptoms may be signaling that it is time for a new set of spark plugs. If the plugs are fine, it may be that the spark plug wires need to be checked (are they plugged in the right order?) or replaced. Also keep in mind that a dirty air filter or clogged fuel filter can starve the engine of the required oxygen or fuel. These filters are cheap and easy to exchange, so take a look at your owner's manual and make sure to replace filters at the manufacturer's recommended intervals. Engine mounts, or engine mounts, are the parts that keep your car's engine in place. If you've ever sniffed around under your bonnet, it may seem like the engine is being held in place just by being wedged In reality, it is attached to the chassis of the car by engine mounts, which can vary in appearance based on the size, shape and strength required for a particular car. Engine mounts are usually made of metal and rubber, and can be nestled between the engine and the frame of the car. (The term frame is used here loosely, because the specific location of the engine within the engine room determines where it will bolt, and that is a little different for each car.) In other words, the engine will always be bolted to structural components, although these components vary based on the design of the vehicle. Ad The metal in the engine mount provides the structural integrity needed to hold everything in place, and rubber helps absorb the vibrations of the engine. Of course, both materials wear out over time, and engine mounts need to be replaced periodically. When the engine mounts are worn out, the metal no longer provides a sturdy brace between the engine and chassis and the rubber no longer absorbs all vibrations. It's just as likely a reason as a reason that you might suddenly or gradually notice shaking in front of your car. If you have a high-performance car or a car that has been modified, you have high-performance engine mounts, which are made of a sturdier material and do not absorb as much vibration. There's nothing wrong with sturting engine mounts, but some drivers find them annoying. Bad engine mounts can give your vehicle the shakes, but what if those bad vibrations come on only when you apply the brakes? Find out on the next page. Do those bad vibrations appear or intensify when you slam on the brake? If so, there's a good chance your car is tooling over with a warped brake rotor, or rotors. The rotor is the shiny, silver disc-shaped part on vehicles with a disc braking system. The rotor can be bent out of shape due to heavy wear - basically, overheating more stops than that particular rotor can handle. Instead of being evenly flat all over, a deformed rotor is raised or lowered on part of the surface. The calipers and brake pads, which squeeze the brake rotors to stop the car, can't even get a grip on a warped rotor. Hence vibrations. Ad If you're not handy with a wrench, it's a good idea to see a brake specialist who can tell you the condition of your vehicle's rotors or brake drums (on cars with drum brakes behind). Our vehicles are full of reciprocal, rotating parts that must fall within certain measurements or tolerances in order to perform well. If an axis is bent - which is actually very easy to do in a collision or other accident - it will be a crowding of a ride after that. With this problem, the vibrating often takes in intensity the faster you drive. Ad A related problem would be that the drive shaft also needs inspection. This fast-moving part brings the to the rear axles and wheels in rear-wheel-drive vehicles. If it is curved, it can cause shaking. Worn constant speed (CV) joints fall under the same category. If the boots those rubber, accordion-like coverings around the ends of the drive shafts - are intact, clamps are safe and no lubricant seeps out, chances are they're not the problem. But if the boots are torn, that means dirt and dust and road dirt getting in and damaging the joints. For front-wheel drive cars, roasted CV joints mean you can buy new drive shafts, too. If you've ever driven a new car and an old car back to back, you might notice that the steering in the new car is much firmer and more responsive than the old car. In other words, the newer car will react faster the way you turn the steering wheel, and the amount the car is turning relative to how much you turned the wheel should feel more accurate. (A caveat here: Different types of vehicles are intentionally designed with different types of steering responsiveness, so this little exercise loses its meaning when you're comparing, say, a sports car and a limousine, regardless of their age.) The point of this example is to explain that steering components, like many other parts on your car, can wear out, and because it happens so gradually you probably won't even notice. There are a lot of small moving parts that physically close your steering wheel and the four wheels on the ground, and once those parts start to wear out, your wheels won't do exactly what you tell them to do. Your car will still steer (provided the parts are not completely shot off), but the excess play in that complicated network can cause vibrations. Advertisement These parts can best be left to the professionals, so keep this possibility in the back of your mind if you have an older car and the other potential solutions in this article prove fruitless. If your car shudders or vibrates only when you're running, it's a little easier to narrow down the source of your problem because it's probably the power steering system. Take a look at the power steering system hoses to see if there are visible leaks, and check the reservoir to see if the power steering fluid needs to be capped. You also try to replicate the sound while the car is not moving. According to YourMechanic, if the problem is somewhere in the power steering system, you should feel the same vibrations from turning the steering wheel even while the car is in park. Ad Sometimes it's not the tires of your car, but the wheels that mount the tires on it that make your car or truck vibrate while driving. Have you ever noticed small metal squares, which look a bit like small fridge magnets, stuck along the edge of the wheels of your car? These are and they are used to balance your wheels. If you want to take a look, turn your steering wheel as hard as you are on one side (when your car is parked) so that your wheels turn outward. It is not uncommon for wheel weights to be mounted on both the inside inside outside the wheel. Ad While you're in there, if you notice mud or other dirt clinging to your wheels, wipe it off. Unbalanced wheels are a common cause of car vibrations, and while this is a difficult problem to diagnose yourself, it's pretty cheap to check out a store and balance it for you. If an unbalanced wheel can cause vibrations in your car, any damage to your wheels certainly can, too - and it may be more common than you think. Watch out for potholes and sloppy road repairs, both of which can be equally dangerous for your wheels. Even a small bump that you immediately forget can be enough to throw your wheels out round. Another thing to look for is runout. This is the term that describes how much a wheel deviates from a perfectly circular rotation when spun. Wheel technicians use precision instruments to determine whether spout on a given wheel is more than half an inch. A lot of the time - but not all the time - the solution is a new wheel. Ad Wheels turn out to be a common culprit when you're looking for reasons why a car vibrates. But we can limit it even further. For our main reasons your car vibrates, go to the next page. Tires are often the cause of your car's moving vibrations, so the next two pages will examine different tire problems and how they can affect the way your car drives. Tyres with low rolling resistance, also known as low-profile tyres, are becoming more common, along with the increase in hybrid cars and EVs. These tires reduce resistance and resistance, which in turn increases the EPA's fuel economy rating, a critical measure for these types of vehicles, especially from a marketing point of view. However, low rolling tires are harder than most drivers are used to, and are just not pleasant to ride on because they don't absorb many of the road imperfections. Ad Although they are also called low-profile bands, that term can be confusing because the low profile can also be attributed to other performance bands. In both cases, you look at tires that have less material, or harder material, and therefore tires that are less able to absorb bumps, potholes and texture on the road. If your car is equipped with low-profile or high-performance tires, that may be the source of your vibration problem. However, it is best to eliminate other possible causes. Old, dry, bare or worn tires are a common source of excessive vibration on the road. The tires are the only part of your car that actually make contact with the road, and they are known for having a relatively short life span. The full list of on which tire problems can contribute to your vehicles shaking, rattle and roll is a long one. But here are just some of the most important: Tires have separated tread - requires tyre replacementUnal tire wear - requires tire rotation Tires are of round and roll unevenly - requires replacement of the bandTire pressure is too low - requires top-offTires are old - requires replacement of the tire Also, keep in mind that these 10 reasons your car vibrates are not the only possible culprits. When in doubt, it's always a good idea to see an automotive service professional. For more information on diagnosing car problems and other related topics, follow the links on the next page. Originally published as October 5, 2009 Fighting the funk may be difficult, but not impossible. HowStuffWorks explains how to get rid of the smell of a dead animal in your car. Related articles Sources Allen, Mike. Auto Clinic: Humming tire, vibrating car, brake fluid change, overheating Aerostar Van, another 'Fuel Saver', removing paint stains, battery chargers. Popular mechanics. September 30, 2009. (March 17, 2008) Mike. Low Profile Tires Cause Vibration, Traction on Sand, Blanco Radio Display, Cleaning A Fuel Tank and more at Mike Allen's Auto Clinic. Popular mechanics. September 30, 2009. (March 17, 2018) Daniel. Car shakes when pressing accelerator pedal. YourMechanic. February 2, 2016. (March 17, 2018) John. How to solve a car that shudders when turning. YourMechanic. December 8, 2016. (March 17, 2018) Ed. Symptoms of a bad or failing engine mount. YourMechanic. January 7, 2016. (March 17, 2018) . Vehicle Vibration Diagnosis Chart. (November 6, 2009) Jason. What causes a car to shake? YourMechanic. December 4, 2015. (March 17, 2018) Jason. What causes a car to shake? YourMechanic. December 4, 2015. (March 17, 2018) Paul. Diagnosis and repair of wheel vibrations. Popular mechanics. March 28, 2006. (March 17, 2018)