Car not starting: Reasons, troubleshooting, and fixing

Team AckodriveJun 6, 2022

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You are all set for a long drive on the weekend. You pack your stuff and hop into the car in excitement. You turn on the ignition only to realize that the engine refuses to start. It can be frustrating as you have a concrete plan ahead for the day.

There may be several reasons why the engine is not firing up. The good thing is, the problem can be fixed by simple troubleshooting techniques if there is no major issue with the car. In this article, let's glance through the reasons behind engine starting trouble and the troubleshooting techniques to fix the problem.

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Reasons for Car Not Starting

If your car does not start when you turn on the ignition, there might be several reasons behind it. It doesn't necessarily mean that there is some major problem with the car. It could be a minor glitch in the battery terminals, a dead battery, a defective ignition switch and so on.

Car starting problems are mainly related to the battery, car self-start system or fuel lines. Below are some of the common reasons why your car is not starting upon switching on the ignition.

A Dead Battery

It is one of the most common reasons for car self-start problems.

- **How to be sure if this is the reason?** If you don't see the dashboard lights and hear the cranking noise when you turn on the ignition, the battery may be dead. You can also try switching on the headlights and honking the horn to determine whether the battery has gone kaput. But, again, if none of the electrical components works, the car battery is dead.

- **How to rule out this reason?** If the electrical components of the car are working correctly, the battery is not the culprit. If the headlights, horn and dashboard/interior lights are working properly, you can rule out the possibility of a dead battery.

Battery Terminal/Connection is Bad

It is an uncommon problem, but it might happen.

- **How to be sure if this is the reason?** Your car will not start if the battery terminals or connection is bad. If the terminals are loose or there is rusting or dirt accumulated, then the electrical components will not receive power from the battery. Hence, the engine will not start.

- **How to rule out this reason?** If there is no rusting/dirt accumulated on the terminals and are properly secured, the problem may not be related to the terminals. It might be the battery or the wiring connections.

Bad Alternator

A broken alternator can also stop the engine from starting.

- **How to be sure if this is the reason?** If the car starts and stalls immediately or the dashboard/interior lights are dim, the alternator could be at fault. A bad alternator will not charge the battery, and hence, the engine will stall. You may also see the battery warning sign on the dashboard, which means that the battery is not charging.

- **How to rule out this reason?** If the interior and exterior lights are not flickering and there are no strange noises when starting the engine, the alternator may be working fine.

Problem with Ignition Switch

A faulty ignition switch is one reason for the car not starting. The ignition switch carries battery power to the electrical components, such as the starter motor.

- **How to be sure if this is the reason?** If the switch is at fault, then the starter motor will not receive power, and it will not crank the engine when you turn the ignition switch on. You may not hear any clicking or clunking noise when you start the car. Note that the lights and the horn may still work because there are separate wiring harnesses for the starter motor and other electrical components.

- **How to rule out this reason?** If you hear a clicking or strange noise when you start the car, the ignition switch works properly. In this case, the starter motor may be broken, or there may be some other issue.

Key Fob is Not Working

If you have a car with a push-button start system, a faulty key fob may cause engine start problems.

- **How to be sure if this is the reason?** If the engine doesn't start when you press the 'START' button, the problem might be with the key fob. The engine will start only if the push-button receives a signal from the key fob. If the key fob is not working due to a dead battery, then the engine start button will not work.

- **How to rule out this reason?** You can try locking and unlocking the car via the key fob's buttons. If it works, the problem is not with the key fob.

Faulty Starter Motor

As the name indicates, a starter motor is responsible for cranking the engine and firing it up.

- **How to be sure if this is the reason?** If there is a fault in the starter motor, you may hear a clicking noise when you turn on the ignition. Unfortunately, you cannot fix the problem yourself, as the starter motor is a complex component, and you will need an expert mechanic to rectify the issue.

- **How to rule out this reason?** There will be no strange noise, or you may hear the cranking noise if the starter motor is in good condition. In this case, the problem might be with some other components.

Blown Fuse

In rare cases, a blown fuse can cause engine start problems. The fuse can melt due to excessive heat and can cause electrical issues, and in turn, cause starting problems.

- **How to be sure if this is the reason?** Go through the owner's manual and find out the location of the fuse box. Open the fuse box, and check if any fuses are blown.

- **How to rule out this reason?** If you don't find any blown fuses, or the problem persists even after replacing the blown fuse, the issue might be with other electrical or mechanical components.

Clogged Fuel Filter

The fuel filter is responsible for delivering clean fuel from the fuel tank to the injectors. Over time, the fuel filter may get clogged due to dirt particles, which will hamper its performance. If the filter is completely blocked, then fuel cannot reach the injectors. Therefore, the engine will not start or will stall immediately.

- **How to be sure if this is the reason?** If the battery, ignition switch, starter motor and other components are in good condition and the engine refuses to start, then a clogged fuel filter may be the culprit.

- **How to rule out this reason?** If you can smell fuel while starting the engine, the fuel is reaching the injectors. Also, if the fuel filter is clean, you can rule out the reason for a clogged fuel filter.

A Bad Fuel Line

A fuel system consists of a fuel filter, fuel pump and fuel injection system.

- **How to be sure if this is the reason?** If the electrical and mechanical components of an engine are working properly, but the engine is not starting, it may be due to a bad fuel line. If the fuel pump is broken, the fuel will not reach the injectors, and the engine will not fire up. On the other hand, if the fuel injectors are not working correctly or are dirty, the engine may stall or not start or result in rough idling.

- **How to rule out this reason?** If there is no hard starting, rough idling or engine misfire, the fuel lines are in good condition.

Locked Steering Wheel

If the steering wheel gets stuck in the locked position, it may not allow the engine to start. It's a safety feature because the steering wheel should be free to manoeuvre the vehicle when you start the car.

- **How to be sure if this is the reason?** Ensure that you check the steering lock before starting the engine. If the engine doesn't start and the steering wheel is in the locked position, it is the reason for self-start problems.

- **How to rule out this reason?** If the engine doesn't start even after unlocking the steering wheel, the problem might be with other electrical or mechanical components.

Gear is Engaged

If you drive an automatic car, you may face the issue of the wrong gear position while starting the engine.

- **How to be sure if this is the reason?** The engine may not start if the gear position is in 'Drive' mode. And, if the vehicle starts in 'Neutral' and doesn't start in 'Park' mode or vice versa, then there is a problem with the neutral safety switch.

- **How to rule out this reason?** Ensure that the gear position is in 'Park' or 'Neutral' mode and start the engine. If the engine cranks, there is no fault with the gear position or the neutral safety switch.

Empty Fuel Tank

It is a common reason for the car not starting. Sometimes you forget to fuel up before setting out for a drive. Never allow the fuel tank to run too low, as it can damage the fuel injectors and other engine components.

- **How to be sure if this is the reason?** If the fuel gauge (digital or analogue) is on the redline, then your car is running low on fuel, and that's the reason for the engine refusing to start.

- **How to rule out this reason?** Sometimes the fuel gauge on the dashboard may be faulty. So it's better to open the fuel filler cap and check if there is enough fuel in the tank to make sure that low fuel is not the reason for the engine not starting.

Troubleshooting and Fixing Car Starting Problems

Now you are aware of some of the most common reasons behind car starting problems. The good thing is all these problems can be fixed with simple troubleshooting tricks, provided there is no major problem with the car's electrical or mechanical components. Here are some of the troubleshooting techniques that you can try if your car is not starting.

- **Check the Battery and Terminals:** A dead battery might be the culprit behind the problem, or loose terminals also lead to engine start issues. If you find that the battery is dead, you can charge it or replace it with a new battery. And, if the terminals are loose or dirty, clean and secure them by tightening. Usually, rusty terminals will lead to a loss in power, and therefore, the engine does not start. So cleaning the terminals may solve your problem.

- **Jump Start With the Help of Another Car:** If the battery is dead, you can still start with the 'Jump Start' technique. For that, you need another car with a fully charged battery. Then, you can jump-start your vehicle with the help of jumper cables, which form a connection between the fully charged battery and the dead battery. It is one of the easiest ways to start your car if the battery is dead.

- **Tap the Starter Motor:** If you hear a clicking noise while starting the car, the starter motor is at fault. If you can access the starter motor, you can try tapping it. Sometimes, the electrical connection gets stuck, and you can free it by tapping on the starter motor.

- **Key Cycling Technique:** If there is a clicking noise when starting the car, the battery may be weak or dead. You can heat the battery, terminals and starter motor by using the key cycling technique. First, turn the key to the engine start position repeatedly for around ten times. Then, wait for about five minutes and try to start the engine.

- **Swap the Relays:** If the engine is cranking but not starting, the problem could be with the fuel pump. Go through the owner's manual to locate the fuel pump relay, remove the relay from the socket, find another relay with the same part number and swap it with the fuel pump relay. Now, the engine should start if the issue was with the relay.

- **Replace the Blown Fuse:** Sometimes, the blown fuse can be the reason for car starting problems. You can read the owner's manual to locate the fuse box and check the fuse. If there is a blown fuse, you can replace it with a new one. Usually, the fuse box comes with a spare fuse, so you can use them to fix the problem.

- **Unflood the Engine:** If you can smell petrol/diesel while starting the car, the engine is flooded with excessive fuel. You can fully press the accelerator pedal and hold it while you crank the engine..

Takeaway

If you own a car, you may have faced the engine starting problem, especially during winters. As mentioned in this article, there are several reasons for the car starting problem. But you can easily find the reason behind the engine refusing to start and fix it with some simple troubleshooting techniques. Note that the troubleshooting tricks mentioned in this article will only work if there are no other significant issues with the car's electrical or mechanical components. Lastly, if you are not familiar with the car's components, it's better to take help from an expert mechanic.

Frequently Asked Questions

Below are some of the most commonly asked questions related to car starting problems.

My car's battery is good, but the engine is not starting. How to fix the problem?

If the battery is good, then the problem could be with the ignition switch, starter motor or fuel lines. You may need an expert mechanic to fix the problem.

My car has been parked for a long time, and now it won't start. What's the reason?

If your car is parked for an extended period, then the battery may have discharged and become dead. You can try charging the battery or try the jump start technique to start your car.

How do I know if the problem is with the battery or the starter motor?

If the engine does not crank or make any sound when you turn on the ignition, then the battery may be dead. If you hear a clicking noise when starting the car, then the starter motor may be broken.

Car engine heating: Common engine overheating causes and actions

Team AckodriveJun 6, 2022

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No one likes an engine failure in the middle of a drive. Engine heating can be one of the reasons for such failures. Overheating can happen to any vehicle and cause permanent damages if you don't fix it immediately.

So, you must know all the causes of engine overheating to prevent it from happening. Here we will guide you on the reasons why car engine heating happens and how you can avoid it.

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Why does your car engine overheat?

A car's engine comprises many components. Each component complements others to perform the required function. If any complication happens to one part, it impacts the whole system.

For example, your car's engine contains a cooling system. The cooling system is supposed to manage excessive heat generation. But if it stops functioning properly, it can lead to engine overheating. Similarly, there may be other reasons why your vehicle's engine overheats.

Engine overheating may result due to the following reasons

Below are the major reasons for engine overheating.

1. Lack of coolant

A coolant is an antifreeze called ethylene glycol diluted with water. This solution freezes at a lower temperature than water. Thus, it serves as a better coolant than water in cold weather conditions.

The role of a coolant is to maintain a suitable temperature in the engine and save it from overheating. If the coolant doesn't reach the radiator due to pump malfunction, blockage or leak, it can cause engine heating.

2. Faulty thermostat

The thermostat of a vehicle's engine manages the flow of coolant. It only allows the coolant to flow when the engine heats. The main valve of a thermostat stays shut if the engine is cool or idling.

For some reason, if the thermostat can't regulate the coolant flow, it can result in engine heating. This happens when the thermostat fails to open the valves, preventing the engine radiator from receiving the coolant.

3. Damaged radiator fan

The coolant flows through the radiator after absorbing heat from the engine. The radiator's cooling fan brings down its temperature by allowing the coolant to transfer the heat to the atmosphere.

In case the cooling fan is not functioning at an optimum level, it reduces the cooling efficiency of the coolant. This problem may occur due to a mechanical failure in the electric motor that runs the radiator fan.

4. Low engine oil

Engine oil in your car provides lubrication and helps to reduce excess engine heat as well. If your car is running low on engine oil, it can also cause excessive engine heating.

5. Damaged expansion tank

Almost all vehicles contain a coolant expansion tank these days. It regulates the entire cooling system's pressure. But if the expansion tank is unable to release the pressure from the radiator, it can cause overheating in the engine.

How to diagnose an overheating engine?

If you can diagnose the warning signs early on, it can save your car from serious damage. You already know what happens internally when a car overheats. Now, let's talk about the signs you should notice from the outside to diagnose if a car's engine is overheating.

Signs of car overheating

Here are some of the signs you can notice to fix the engine heating issue as soon as possible.

1. Hot bonnet

It is common for the bonnet of your car to feel warm. But, if the bonnet gets extremely hot, it means that your engine is emitting excessive heat.

2. Temperature indicator

Most cars come with an indicator that reflects the engine's temperature. This indicator will help you realise whenever your car's engine generates excessive heat.

However, such an indicator reads the coolant's temperature. So, you can't trust it if car overheating is occurring due to coolant leakage.

3. Strange noise

If you hear a ticking noise coming out of the engine, it means a lack of lubrication. This happens when the engine oil loses its ability to lubricate due to excessive heating.

4. Coolant leakage

If you find coolant leaking beneath your car, it may be causing your engine to overheat due to a lack of cooling liquid.

5. Burning smell

If the engine overheats, you might smell an odour of burning oil. The smell intensifies as the heat rises up to damage plastic valves, rubber seals, etc.

6. Steam coming out of the bonnet

If you are able to see steam coming out of the bonnet, it can be a sign of engine heating. This happens when the coolant starts turning into steam after reaching its boiling point.

7. Reduced performance

When overheated, your car's engine won't be able to deliver its regular performance. Combine this with other signs, and you will know when to fix the excessive heating issue in your engine.

Engine overheating troubleshooting

You should know what to do when a car overheats to avoid extreme damage. Here are the steps you can follow in case engine heating occurs.

Step 1: Switch off the air-conditioning of the car to decrease the engine pressure.

Step 2: Park your car in a safe location, shut it off and let the engine cool down for 15-20 minutes.

Step 3: Check the coolant level and add more if required.

Step 4: Restart the engine or get it towed if you're not able to start it.

Step 5: Take the car to a professional to check for leakage, blockage or any other damage.

Ways to keep your car engine in good condition

Use the following habits to prevent engine overheating in your car.

1. Regularly check the coolant level

This is a useful habit to avoid excessive heating in the engine of your car. Checking the coolant level in the radiator will help you add fluid whenever required. It is the most basic approach to prevent engine overheating. But make sure that the engine is cool before opening the radiator to check the coolant level.

2. Manage the AC usage to reduce engine pressure

Whenever you drive your car on a long journey, manage the use of air-conditioner (AC). Turn off the AC from time to time to avoid extra load on the engine. Continuously running AC increases the chances of engine overheating on long journeys.

You can also turn on the heater after switching off the AC and open the windows. This approach will allow the heat from the engine to release into the atmosphere through the cabin. This process is definitely a bit uncomfortable in summers but allows you to keep on moving without facing the issue of an overheated engine.

3. Keep an eye on the temperature indicator

When you are enjoying a long road trip, don't forget to check the engine's health through the temperature indicator. It may be a gauge or light on your dashboard, depending on the car you drive.

By checking the engine temperature, you can manage the speed or stop from time to time to avoid overheating.

4. Maintain a cycle of radiator flushing

Keeping an optimum level of coolant in your vehicle isn't enough; you must replace it periodically. This can be done via a process called radiator flushing, which involves draining the coolant out of the radiator.

You can ask a professional at your regular service centre to flush the radiator. Make sure the mechanic cleans the radiator lines properly before filling up the new coolant. Doing this periodically will ensure optimum performance from the engine's coolant.

5. Get the thermostat checked regularly

Another component you should get checked regularly is the thermostat. This way, you can fix any minor problems with the thermostat early on to maintain a smooth flow of coolant.

6. Notice any damages on the radiator cap

The cap on the radiator also plays its part. A loosened or faulty cap causes a pressure difference, which impacts the circulation of liquid. This cap contains a spring that loses its strength over time. Thus, you need to get it replaced whenever required to avoid overheating due to pressure differences.

7. Replace an old car battery

An old car battery has to work harder to deliver the required power. Weak batteries need to consistently recharge to deliver energy, which leads to excessive engine heating. It can cause overheating inside the engine. You should get your car's battery checked by a mechanic. He will tell you if it is the right time to replace the old battery with a new one.

Tips to prevent your car from overheating

An overheated cabin can also impact the efficiency of the engine as the AC inside the car puts more pressure to cool down the interior. Hence, you must try to maintain a normal temperature of the car at all times. Below are some tips to help you avoid car heating.

1. Park in the shade

If you leave your car parked out in the sun, it can increase the temperature not just in the cabin but also inside the bonnet. Moreover, a heated cabin requires more time to cool down after turning on the AC.

You should find a parking space with shade, especially if you want to park the vehicle for a long period. Alternatively, you can cover your car to reduce heat absorption.

2. Leave windows slightly open for natural ventilation

If you keep all car windows closed while parking, it traps the hot air inside. Leaving the windows slightly open allows the hot air to escape.

If you have a sunroof in your car, open it just a little bit while parking. This creates natural ventilation, keeping the cabin cool.

However, you must keep the weather conditions in mind while leaving the windows open. You wouldn't want to come back to a soggy cabin after sudden summer rainfall.

3. Use the car's AC smartly

You must use the air-conditioner in a way that it doesn't put too much pressure on the engine. For instance, don't start the AC in recirculation mode. Instead, leave it in the fresh air mode for the first 10 minutes.

The recirculation setting will just move the same hot air inside. Once the cabin air cools down, you can switch the AC to the recirculation mode.

Frequently asked question

Below are some of the frequently asked questions about an overheating engine.

Can I drive my car after it overheats?

You should not drive an overheated car for long. If you keep on driving, it can twist the cylinders causing the head gasket to blow. You will end up paying a lot of money to get your car fixed. Thus, it is better to stop driving and let the engine cool down.

Will the car overheat when the AC is on?

In certain conditions, your car will overheat when the AC is on. These situations may include an overloaded AC compressor, faulty cooling system, damaged cooling fan, radiator not functioning properly, etc.

Smoke coming from the engine but not overheating; what to do?

Some type of fluid may have come in contact with the engine, resulting in smoke. The fluids like coolant, fuel, motor oil, or transmission fluid can cause smoke if they burn off on the engine surface. You should take your car to the service centre to get the leakage fixed.

My car's radiator is overheating; what to do next?

If your car's radiator is overheating, you should switch off the AC first. Then, stop driving, shut down the engine and allow some time for the radiator to cool down. Make sure that there is enough coolant in the system and it isn't leaking outside.

If the radiator cools down in some time, drive it to a service centre for a checkup. A professional can tell you if there are any persistent problems causing your car's radiator to overheat.

Why Is My Car Making a Rattling Noise When at Idle?

Jack R. Nerad | Nov 06, 2020

Hearing a rattle as you drive is irritating. What makes it more annoying is that a rattle can indicate a simple-to-fix problem that will cost almost nothing to repair or a significant issue that could cost thousands of dollars to solve.

When you hear a rattle when your engine is running, but your car isn't moving, it is time to engage in forensic auto mechanics. By that, we mean you look at the available clues to help you determine the answer to the question: "Why is my car making a rattling noise when idle?" Determining the rattle's probable cause is a little more scientific than reading tea leaves because not every rattle is the same. So, by listening to the rattle itself and where it seems to be coming from, you can start to sort out where the problem lies and how much it will cost to fix it.

Rattles from Inside the Car

One logical method of problem diagnosis is to progress from easy-to-fix issues to bigger ones. Rule out the simple fixes before you embark on complicated and expensive repairs. In the context of rattles evident when your engine is idling, the simple, easy-to-fix issues are often inside the car rather than in the engine compartment or the driveline.

While today's vehicles are far superior to the cars of a few decades ago in terms of interior rattles and squeaks, those problems still occur. A loose center console cover, broken glove box hinge, or even an item resting in the door panel pocket or cup holder can suddenly start rattling at idle. So, if you hear rattling when your car is idling, check carefully around the interior, including the trunk or cargo area. Some vehicles have cargo-carrying systems and cargo covers that could be the source of rattling that you might only hear at idle with the sound system off.

Generally speaking, the fixes for these problems are self-evident, and you can perform them with a simple screwdriver or pair of pliers, or with no tools at all.

Rattles From Under the Car

If you have checked all the interior pieces that could rattle and still haven't discovered the source, the noise is likely coming from elsewhere in the vehicle. If it sounds like the rattle is coming from the interior, but you haven't found any loose interior pieces, it is a good bet that the noise is coming from under the car, perhaps right under the passenger compartment.

Two common sources of these troubling sounds are the exhaust and emissions systems. Again, it's wise to look at the least-expensive problems first, and in this case, the least expensive problem is with a heat shield. The heat shields are typically inexpensive parts that protect nearby areas from the heat emanating from the exhaust system. They are known to rust, and as they rust and disintegrate, they can start to rattle.

Rust and corrosion also cause the deterioration of the exhaust system itself, which can cause rattles. In instances like this, the muffler or tailpipe probably needs to be replaced. Sometimes, an exhaust system clamp gets loose, creating a rattle.

Another cause of rattles under the car is a failing catalytic converter. As a vital part of the exhaust emissions system, a catalytic converter removes the most noxious compounds and elements from the vehicle's exhaust gases. Its core resembles a honeycomb, and in its super-heated environment, it transforms unburned gases into less harmful components.

The problem is the core will break down over time, and as it disintegrates, small pieces will drop off and begin to rattle inside the catalytic converter housing. When this occurs, it is time to think about replacing the catalytic converter, because otherwise it will eventually clog and cease functioning. Not only will your car not run properly, but you will also fail your next smog test.

Rattles From Under the Hood

If you have eliminated the car's interior and its underbody area as the source of the rattle, the next logical place is to look under the hood. Sadly, this is where the most expensive problems associated with rattles occur.

One common problem that will cause a rattle at idle is a failing hydraulic valve lifter. The lifters are small parts that open and close the engine valves, activated by oil (hydraulic) pressure. Today's vehicles have very complicated valve systems, many with variable valve timing, yet they are often relatively trouble-free. But, in older cars, hydraulic lifters are known to collapse, and as they fail, they produce a rattle or "ticking" sound. Should this be the problem, you should replace the entire set of lifters because if one has failed, there are others near failure.

If you hear a "clack-clack" kind of rattle when you start your car's engine, it could be a sign of piston slap. Pistons move up and down in their cylinders with a tight fit between the piston and cylinder wall. If that close gap grows larger through wear-and-tear, the pistons won't move properly in the cylinder, producing a sound mechanics describe as piston slap. While the problem could infect just one cylinder-piston combination, more than one is likely affected. This is a major problem that requires a complete engine rebuild.

The Bottom Line

A key takeaway is that if you hear a rattle when your car is idling, don't simply turn up the audio system and ignore it. The rattle could be an early warning that something is going seriously wrong with your car. Or, the rattle might be due to something simple and easy to fix.

No matter what the cause is, it is worth finding. If you don't determine why your car is making a rattling noise soon after hearing it, expensive damage can result.

https://www.firestonecompleteautocare.com/blog/maintenance/car-making-rattling-noise/

My Car Makes a Rattling Noise When I Accelerate

As you press the pedal and feel the thrill of acceleration, an unexpected rattling noise can put a wrench in your experience. If your car rattles when accelerating, identifying the source of the issue is essential but not always easy. This problem can be caused by several factors, including

low engine oil levels, failing alternator or water pump bearings, loose engine or suspension components, and more.

My Car is Making a Rattling Noise When at Idle

If you hear rattling noises when the car is idle, this issue could result from several factors, ranging from big to small fixes. From problems with your belt tensioner, A/C compressor clutch, or engine to corroded or loose exhaust parts like the metal heat shield or exhaust pipes.

But are these sounds coming from within your vehicle, under it, or in the engine bay? Keep reading to learn how to pinpoint the failing component.

Locating the Source of the Rattling Noise

Interior Rattling

Whether your car makes rattling noises when driving or idling, you should first rule out any loose interior elements. Check the glove compartment box, cup holders, dash elements, cargo area, windows, doors, and other parts that may start to shuffle things around once the engine gets going. The issue can sometimes be as simple as a loose screw.

Another common cause of interior rattling noises is worn window seals. As the rubber seal ages, it may deteriorate, allowing some wiggle room for the windows to rattle. It's also a good idea to check your cargo-carrying system, if your car has any. Cargo covers can cause interior rattle if they have worn or improperly attached mechanisms.

Rattling Under The Car

Rattling noises coming from underneath the car are most commonly caused by corroded or loose exhaust components and heat shields. Heat shields along the exhaust pipe and manifold can become loose and vibrate against surrounding metal. Here are the most common causes of rattling beneath your vehicle:

Damaged Brackets

Loose or broken brackets can also be the culprit. Brackets are often used to hold and secure heavy components by attaching them to your vehicle or other systems. Many brackets can withstand years of use. But as they begin to wear, you may hear components clunking around as they become loose. Fortunately, broken brackets are often less complex and fairly easy to repair.

Exhaust System Damage

Rattling noise from the exhaust system may indicate serious issues. Leaks, for example, can prevent proper exhaust fume expulsion and may even lead to hazardous fumes leaking into your

car! If you are in doubt about the condition of your exhaust system, get your vehicle to your local Firestone Complete Auto Care ASAP, and our experts will investigate the issue for you.

Failing Catalytic Converter

A failing catalytic converter can also cause sounds that resemble rattling. Your catalytic converter reduces the emission of gaseous pollutants such as carbon monoxide (CO), hydrocarbons (HCs) and nitrogen oxides (NOx) from the exhaust fumes. So, if it's damaged, you may fail your next emissions test.

The catalytic converter's core is similar to a honeycomb, and as it breaks down, small parts can break off and start clattering around inside it. You should replace a faulty catalytic converter as soon as possible since it can clog up and cause engine performance issues.

Worn Suspension and Steering Components

Have you been noticing a new annoying rattling or clunking noise coming from your vehicle as you go over bumps or during cornering? These noises could be coming from your suspension and steering system. Over time components like control arm bushings, tie rods, ball joints, sway bar link ends, springs, struts, strut tops, or shocks can wear and can cause pesky noises. These issues should be addressed ASAP as they can cause steering and handling issues.

Engine Rattling Noises

If you checked the interior and underside of your car and couldn't locate the sound origin, the next step is to inspect your engine. You'll want to act immediately if you hear any concerning noises from this component. Here are a few common culprits:

Failing Hydraulic Valve Lifter

Hydraulic lifters open and close the engine intake and exhaust valves. If a bad lifter isn't repaired, it can lead to rocker arm, valve tip, and push rod damage, usually creating a tapping noise from the top of the engine. Replacing all valve lifters if one is faulty is recommended since others are likely to fail shortly after.

Piston Slap

Another engine issue that can cause a rattling noise is a piston slap, and it could require a complete engine rebuild to fix. Pistons have a tight fit with the cylinder wall, but through wear and tear, the gap can expand. As a result, pistons won't move correctly within a cylinder, which produces a clacking rattle noise. A piston slap can occur with one or more cylinders, but more often than not, multiple pistons are affected.

Other Possible Causes

While the above are major engine problems, there are also less challenging engine issues that can produce these noises. Worn or damaged drive belts, pulleys and water pumps can also make clicking, ticking, roaring, screeching, and rattling noises. Thankfully, these are often easier and less costly to repair.

To know for certain, contact your local Firestone Complete Auto Care. Our skilled technicians can take a look at your engine, pinpoint the issue, and offer you a complete explanation of what your vehicle needs and why.

https://thepalmbeachgarage.com/air-conditioner-noises/

How To Diagnose 5 Weird Car Air Conditioner Noises Before You Visit a Mechanic

These are the five most common car air conditioner noises drivers report to their mechanics during service:

#1. A Loud, Squealing or Screeching AC Sound

Loud squealing or screeching is the most common noise drivers experience when they turn on a malfunctioning AC.

This sound often signals an issue with your drive belt or serpentine belt.

The serpentine belt is responsible for turning the pulley at your air conditioner compressor, which pressurizes the refrigerant lines and makes it possible for cool air to reach your cabin, among other duties.

Though squealing or screeching is a good indicator of a worn belt needing attention, you can examine your serpentine belt for signs of wear like cracks and tears, or missing ribs facing the pulley, before you bring your car in for service.

You'll still want a mechanic to diagnose the issue definitively because failing bearings in the compressor pulley can also make noises like squealing, roaring, and grinding too.

This next car air conditioner noise is also very common — but not necessarily bad.

#2. AC Hissing When the Car Shuts Off

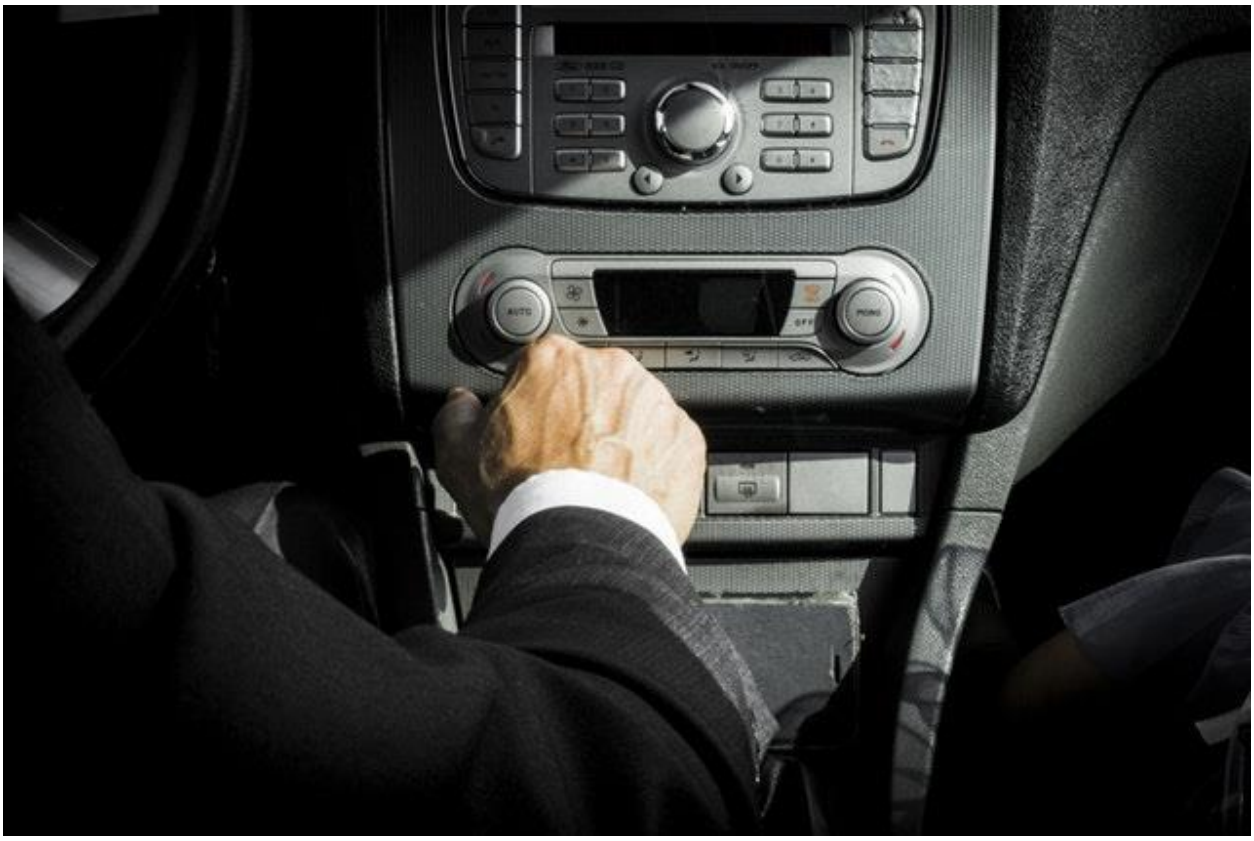
A hissing noise is another common sound drivers hear from their car's air conditioner. The good news is this doesn't always spell trouble.

If you hear the AC hissing after you turn your car off, that's actually just your car's way of equalizing pressure.

See, there's both a high pressure side and a low pressure side in your system when the AC is running. A refrigerant like Freon moves between these two separate sides which are divided by either an expansion valve or an orifice tube.

Turning off your car will cause the Freon to move from the high-pressure part of your AC compressor down to the side with lower pressure to equalize out.

While AC pump noise is totally normal for your car's air conditioner, hissing at any other point may give you reason to visit your mechanic, just like a buzzing noise.



#3. AC Buzzing Noise

If you're hearing a car AC compressor noise while accelerating, or a buzzing noise when you first turn on your car's air conditioner, you may have too much Freon in your system.

Often topped off during a routine service visit, an overcharged air conditioner means the refrigerant may be entering your AC compressor intake port — and that's bad.

Your AC will not be able to properly cool your vehicle and it may cause serious damage to your compressor or other components. Get your vehicle checked out ASAP.

#4. AC Knocking or Clicking

Hearing a knocking or clicking noise in car air conditioner is actually one of the easier sounds to fix on your own.

Knocking or clicking usually signals loose mounting bolts or any of the other various air conditioning components not being tight enough. The loose parts will rattle and shake and you'll hear a racket when you kick on the AC.

To troubleshoot this issue, turn your engine on, pop open the hood, and crank up the AC. Check to see which parts are shaking and then tighten those so they stop. You'll also want to add thread-locking compound to the parts to prevent them from loosening in the future.

This final noise may be the most serious to watch out for.

#5. AC Rattling

Your engine is under a heavier load when you run the AC. That means rattles can stem from any number of issues like a bad catalytic converter to a failing power steering pump pulley.

So if you turn on your AC and hear a rattle, it may mean you have a failing or bad:

AC compressor. Rattling or your car air conditioner making loud humming noises which get worse as you accelerate can both be signs you need to replace your AC compressor.

Compressor clutch. This high-wear part often needs replacing, especially if you live somewhere where you're constantly running your car's AC.

The compressor clutch pressurizes your AC and pumps refrigerant through the system. A rattling could indicate it's time to replace your worn out compressor clutch (and maybe even the entire AC compressor).

Idler pulley. An air conditioner pulley making noise can also come from failing bearings. These typically start when your AC compressor engages.

If you think any of these issues may be causing your weird car air conditioner noises, it's in your best interest to take your vehicle to a trusted mechanic where they can properly diagnose the real cause and fix it before you damage your vehicle any further.

https://www.kbb.com/car-advice/brake-repair-how-to-diagnose/

Quick Facts About Diagnosing Brake Problems

- **Don't delay any brake repair, as it's critical for your safety to get it done immediately.**
- **A squeaking noise indicates that your brakes are worn and likely need replacement.**
- **Your brakes are made up of multiple parts, including rotors, brake pads, and calipers.**

Like any other moving part of your vehicle, the brakes could one day need repair. Unlike some car parts that can wait for repairs, it's essential to get your brakes repaired immediately if you suspect an issue, and a mechanic can help diagnose the exact problem. Well-maintained brakes can mean the difference between stopping quickly and a rear-ending accident.

Luckily, there are some signs to know when you need a brake repair. Continue reading to learn how to diagnose bad brakes and how to get them fixed.

How Long Do Brakes Last?

Your brakes and brake pads can last between 25,000 and 50,000 miles or more. This number can vary drastically depending on a few key factors. The most important factor when determining brake life is your daily driving commute. If most of your travel is on the highway, there is less need for you to use your brakes constantly. This means your brakes will last at least 50,000 miles or sometimes longer.

However, if you're a city dweller, the lifespan of your brakes will likely be shorter. When driving through the city, you put more pressure and strain on the brakes due to stopping and starting. For example, when you stop at a red light or stop sign or press your brake pedal to make a turn — it causes them to wear faster than if you were driving steadily on a highway.

How To Know if Your Brakes Need Repair

When your brakes get close to the end of their lifecycle, they will usually signal that they're going bad with a few warning signs. For example, listening to the sound of your brakes is the best way to know if your brake pads need repair. Once you realize your brakes may have an issue, it's best to head to a trusted mechanic for a brake inspection. Read on to find out the key indicators for brake repair.

1. Squeaking Noise

If you hear a squeaking or squealing noise from your car whenever you brake, you should get it checked immediately. Any noise can be a sign that your brakes are thin and worn. However, the sound could also come from worn brake pads, meaning the metal is rubbing against metal. The sound can come from a built-in wear indicator on the pads that makes a loud noise when it's time for new brake pads.

You may hear other noises like clicking or grinding when stepping on the brakes. These sounds correlate with the brake pads or the brake shoes, which happen when they start to get worn.

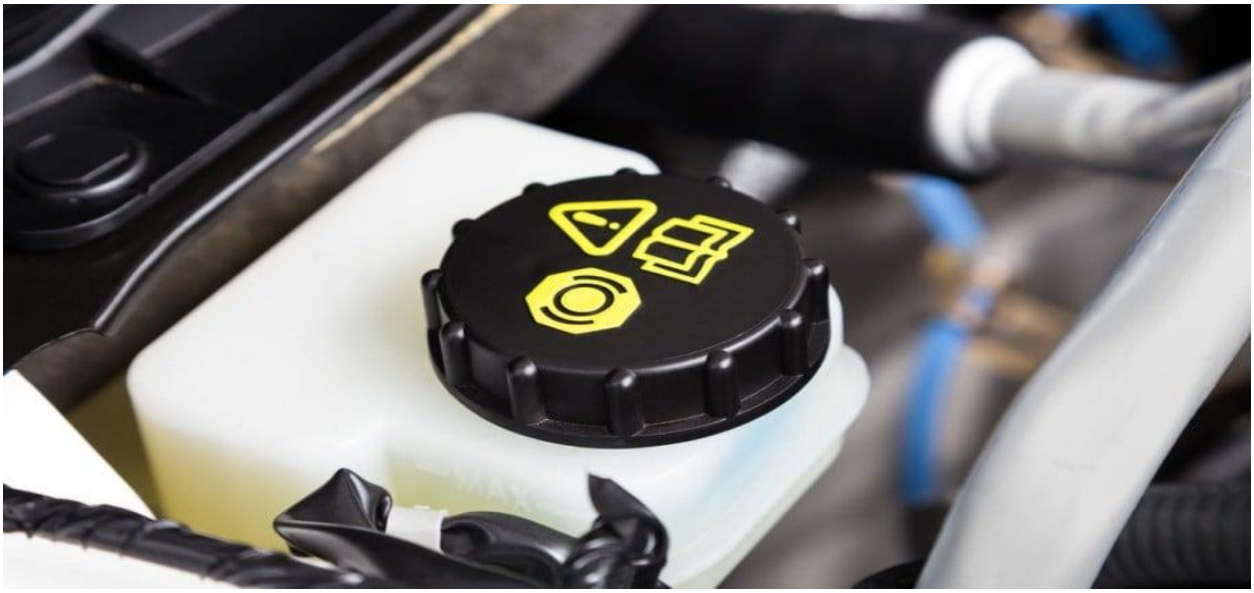
Even if you can't tell which part of the brakes the sound comes from, it is a high possibility that the brakes will need to be replaced.

2. Burning Smell

Your sense of smell can also let you know that you may be having brake issues. If you smell burning when you hold your brakes or press them repeatedly, it likely means they're overheated. In this case, pull over when and where it's safe to do so and let your brakes cool down, as no part of your car works well when overheated.

If there is a burning smell combined with smoke coming from the wheels, there may be a more significant issue with the brakes. Call for help if you see smoke, as the car is likely unsafe to drive.

3. Brake Fluid Leak



A brake fluid leak is yet another cause for repair. Brake fluid helps keep your brakes working properly and is needed to bring your car to a stop safely. Leaking fluid usually means brake damage and can impact your ability to brake. You'll be able to identify that it's brake fluid if you see a light-yellow tint in any wet spots under your car.

Another sign to look for is brown liquid leaking underneath your vehicle, which typically means the brake fluid is expired. You can manually check the brake fluid by propping open the hood and unscrewing the brake fluid cap. Brake fluid typically lasts four to five years. To keep your car running properly and safely, check your brake fluid every time you get an oil change or at least once a year.

4. Warning Light

Another indicator of needing a brake repair is the brake system warning light. The warning indicator is present in most cars, and a light on your dashboard will illuminate. This is a sign to get your brakes checked, as it could mean your car is low on brake fluid. It could also mean your emergency brake is on or there's a malfunction with the sensors.

The brake system warning light is separate from your ABS (antilock brake system) light, which has to do with your car's traction.

5. Brake Pedal Problems

If you press the brake pedal and it feels weird, your brakes will need to be checked immediately. Brake pedal problems can directly lead to a car taking longer to stop than usual.

A common problem is spongy or soft brakes. This occurs when you step on your brake pedal and it goes all the way to the floor. Unless you are slamming on your brakes in an emergency, the pedal should offer some resistance. If there is none, get the brakes inspected.

On the other hand, if the pedal feels too hard, that could also indicate a problem with the brakes. Don't delay getting any brake pedal problems checked out and diagnosed.

6. Vibrating or Pulling When Braking

When stopping the car, the brakes should allow you to glide to a smooth stop. The car or the steering wheel will sometimes vibrate when the brakes are bad. Vibration is usually due to a problem with the rotors wearing unevenly, resulting in a shaky car.

If your car pulls to one side when stepping on the brakes, that should be immediate cause for concern. If the problem is with the front brakes, this could mean one of the brakes is not working, and the other is carrying the weight of stopping you.

What Happens if You Don't Fix Bad Brakes

If you notice something is wrong with your brakes, you should take the car to get inspected immediately. While some car repairs can wait, anything having to do with stopping a vehicle that weighs thousands of pounds is not one of those repairs to delay. For your safety and the safety of others, make sure to get your brakes inspected and repaired if you suspect a problem.

Neglecting a brake repair is a safety issue, but it can also cost you more money if you delay fixing the problem. Your brakes consist of multiple moving parts, such as rotors, calipers, brake pads, and more. Once one system goes down, it's only a matter of time until it affects the other parts of the system. For example, waiting to fix brake pads can cause the rotors to wear down faster.

Depending on your vehicle, a complete brake repair, including rotors, calipers, and brake pads, can cost as much as $1,000, sometimes more. However, the cost can rise if you neglect the necessary repairs. Suppose you drive a luxury vehicle, like a Mercedes-Benz AMG performance model. Kelley Blue Book's expert mechanics say you may pay at least $15,000 for brake pad and

rotor replacement for a carbon-ceramic rotor-equipped vehicle. Use our brake repair pricing tool to find out what you can expect to pay.