



9 Tips & Tricks to make it easier to work on CARS

By
ERNEST MARTYNYUK



Working on cars can be a challenging but rewarding experience. Crunched for time, money, and stress relief, most people working on vehicles want to make the job easier. Here are nine tips and tricks that make it easier to work on cars. Some of these tips may surprise you.

- **Change the Air Filter**
- **Do Not Ignore the Fuel System, Transmission, or Recalls**
- **Check the Electrical Components**
- **Get the Electrical Test Done Frequently**
- **Use the Correct Tools for the Job**
- **The Paper Trick**
- **Make Your Own Tools (or Ground Testers)**
- **Use Older Parts (Sparingly)**
- **Test and Do Not Assume**

Even though it is a science, working on cars is more of an art than a science. The artistic portion comes from the combination of skill, tools, experience, and good old fashion common sense. These tips are simple, and others require a little engineering to use. Some tips and tricks can make both the long-term life of the vehicle longer, as well as save time and frustration.

Proper Maintenance is the First Step in Making it Easier to Work on Cars

Maintenance is a vital issue when working on vehicles. So many future problems could have been prevented with more attention and care for the car. Unfortunately, maintaining the vehicle is part of the cost of ownership, and most people ignore the big stuff. Well, those big items on the book maintenance log are sometimes crucial.

Change the Air Filter Every 12,000 Miles or as Recommended by the Manufacturer

A clogged air filter can cause the vehicle to [slow down and feel sluggish](#). This is because the air filter controls the amount of air that gets into the engine in a minor way. The more clogged the air filter is, the less air the engine is getting to mix with the fuel. Therefore, the air filter should be checked and cleared as often as reasonably possible.

Tips and Hacks for The Air Filter:

- **Do not waste the big bucks on a premium filter unless you understand why it is a premium filter**
- **The reusable air filters will save money because they can be revived**
- **Change the filter when you change the oil, and you will never forget**
- **Look for bundles where you get the filter with an oil change deal**



Do Not Ignore the Fuel System Cleaning, Transmission Fluid Changes, or Recalls

Recall notices go out for current registered owners of the vehicle in question, and sometimes things can get lost or misplaced in the mail. In addition, a person can check for no-cost recalls through the [U.S. Department of Transportation \(National Highway Transportation Safety Association\(NHTSA\), 2022\)](#). The recall checks are free and cover all vehicles in the United States.

It is recommended to check for recalls annually or during a transitioning phase, such as the transfer of ownership. At times, the recall fixes significant issues with the vehicle at no cost to the owner, so even if running a small shop, helping the customer save money only increases their loyalty to the shop. Unfortunately, most manufacturers only send out safety recalls and leave the other recalls open for discovery from the vehicle owner.

Fuel System Cleaners, Smog Cleaners, and other Chemical Fixes

The fuel system is the most essential of the entire vehicle operation. Sure, the hammer trick works for starters and fuel pumps, but it's best to avoid those strategies except in an actual emergency. Rather than bang on the fuel tank with a rubber mallet to get home, the better option is to use a fuel additive regularly to prolong the fuel filters and pump life.

Other helpful chemical solutions are:

- **Radiator Stop Leak**
- **Head Gasket Sealant**
- **Cooling System Treatment**
- **Oil Treatments**
- **Cat Clean®**

The fuel pump clogs mainly because of micro debris and solids found in the fuel. These carbon deposits and other settled minerals pass through the fuel filters and pump into the engine. Using a [fuel additive](#) to eat these micro-deposits before they enter the fuel pump and filter is a surefire way to prolong the life of the fuel system.

Similarly, radiator treatments, oil treatments, and catalytic exhaust treatments work, targeting those specific components. But, again, a person must follow the directions to a T for the chemical add-ins to work correctly, and in some cases, a chemical solution could get you to the next destination to have a repair done.

Cataclean Complete Engine, Fuel, and Exhaust System Cleaner – 15.8 oz.



Ignoring the Transmission Service Could Put the Car Out of Service

One of the most ignored maintenance issues is the transmission service. Most people do not want to do it, and most mechanics forget to remind people (Motor Hills, 2022). Ignoring the transmission service leads to more problems later down the line for the vehicle owner. The clogs start as the transmission continues to work in a dirty environment.

When the fluid is ignored, the metal shavings left in the darkened transmission fluid provide resistance to the gears inside the transmission or the belt if it is a CVT Transmission. The transmission will usually fail shortly after if the fluid is completely absent. The transmission would most likely [need repairs or be replaced](#) if the Maintenance is ignored for too long.

A transmission drain and refill, as recommended in the manufacturer's maintenance book, is the most critical maintenance item on the sheet for the prolonged life of the vehicle. Quickly checking the fluid on the transmission dipstick is the easiest way to see if a service needs to be performed. The darker color of the transmission fluid is a critical indicator that the fluid needs service.

Checking the Electrical Components are Sometimes the Easiest Solution

The vehicle's electrical components are often old, corroded, or ungrounded under a load. The electrical system malfunctioning could be to a loose ground wire, damaged wires, or even worn-out fuses and relays. If starting with the simplest solution first, do not ignore evaluating the system's electrical components; it could be the problem from the gate.



Damaged or Loose Wires Can Cause Weird Electrical Issues

Checking the ground wires can [solve many problems](#) that seem unordinary. Even when a wire tests well through a voltage meter in a solid state, it does not mean that it will test well under a full load. Creating a load tester of some sort will help narrow down the ground wire that is causing the issue.

Damaged or Loose wiring can be challenging to locate and sometimes seem as though they are operational when they are not. However, cleaning old wires that [look damaged or replacing old cables](#) is easy. Cleaning the wire and re-securing the connection could solve the problem without expensive repairs.

Check the Security Of The Wire and Lubricate the Wires

Cleaning off the Corrosion is just one step in securing the wire. Some great lubricants can help restore or repair lost connections due to dust and debris. In addition, using some of these products will help prolong the life of the wire.

- **Several Types Available are:**
- **Silicone-based electric grease**
- **Di-electric grease**
- **Electronic Contact Cleaners**
- **Lectra-Lube (electric motor parts only)**

Take The Car In For An Electrical Test

Nowadays, most shops have the equipment to evaluate your battery; even some retail outlets will give a [free battery system test](#). In addition, these retail stores will also test your alternator, which is recommended to do frequently. This is because the alternator runs large loads, constantly sending loads through the entire vehicle and back to the battery.

The alternator has the most essential electrical job in the entire vehicle. Sometimes the solution could be simple such as replacing a belt, or the alternator itself may be faulty and needs to be replaced.

Although not a great idea, the alternator can keep the [car running with a bad battery](#). This can cause electrical issues as the alternator continues to fail. However, there is no need when a person can know with certainty that everything tests OK, and it does not cost anything at most places that offer the service.



Using The Correct Tools can Be a Savior to Time, Frustration, and Hands

Working on a vehicle helps to have the correct tools for the job. Several tool hacks can help save time, money, and the tops of your knuckles. Rather than spending hours on a single bolt or diagnosing a faulty relay, these tool hacks and tricks will help.

Having the Correct Sockets, Extensions, and Ratchets is Priceless

From transmission bolts to pulley bolts having the correct extensions and wrenches are a time and knuckle saver. An extra-long extension will give you a better angle, distance, and leverage to take those tightly squeezed transmission bolts out (Omega Auto Clinic LLC, 2022). Also, using the long extensions provides a person with a better rise and space to loosen the bolts around the pan.

Similarly, an extension can save your back or awkward angles when working on a vehicle. For example, it is much easier to loosen the bolts on the battery stops at the bottom of the tray with a long extension simply because a person does not have to bend down as far to turn the ratchet. This position allows a person to turn the ratchet from a standing position versus being bent over the battery or leaning into the work.

Lets Talk About Slim Wrenches

A [slim wrench](#) is a tool that no one working on vehicles should be without. Several options are available, some better than others; it doesn't matter which a person gets as long as you have a few of these knuckle-savers in the toolbox. In addition, the slim wrench allows easy access to small tight vertical spaces that may take hours without the correct tools.

Areas Where The Slim Wrench Is Great For:

- **Pullies and Belts**
- **Exhaust System**
- **Intake System**
- **Water Pump**
- **Alternator Brackets**
- **A/C System Components that are not under pressure**

DURATECH Super-Thin Open End Wrench Set, Metric, 8-Piece, with Rolling Pouch



Pick Up an OBD2 Scanner; You will Save So Much Money!

An OBD2 scanner is a tool that tells a person what emissions codes the vehicle has stored, has currently active, or in some cases, live information. There are some fancy and expensive options, but those scanners are only good if you need the options they come with. Such as this [BlueDriver](#) which is available. There may be cheaper options, but if the car feels sluggish, it is best to know before going to the auto parts store.

The Guessing game is brutal and should be avoided at all costs. The OBD2 scanner works on models that are past nineteen ninety-five. Before that, those vehicles had the OBD1 scanner, so a car only needs the OBD1 option if it is older than nineteen ninety-five or around that year, depending on the make and production date of the specific vehicle.



O-Rings have So Many Options, and Most People Do Not Install Them Correctly

Under pressure, the iconic black-style rubber O-rings are a staple for most vehicle parts, except for the A/C components, which use slightly better quality and more durable material in these green O-Rings (Omega Auto Clinic LLC, 2022). Opting for a better-quality O-ring that will last for many years over the cheaper standard black O-rings will save time in the future.

O-Rings are supposed to be lubricated, so the installed parts should not take much force to seal. However, when the O-ring is not correctly installed, it can lead to repairing the part that was just worked on, leaving the impression that the part itself is faulty when the O-ring was not lubricated when installed.

Who Knew a Piece of Paper Could Be Better Than A Magnet?

If a situation presents itself where a bolt needs to be installed with a socket in a vertical position and a person simply can't get their hands down there, a small piece of paper does the trick (Omega Auto Clinic LLC, 2022).

Take a small square of paper about twice the size of the bolt head, fold it, and place the paper over the opening of the socket. When the bolt goes into the socket, the paper loosely locks it just enough to keep it in the socket long enough to install.

Paper works in any area where a small gap needs to be filled to install or remove a fastener

- **Screws**
- **Bolts**
- **Allen Stars**
- **T-Bolts**

A Good Rotary Tool is A Necessity

The rotary tool is a clean and efficient way to carve out a space in the head of a stripped bolt or screw. This method is more manageable and does less damage than attempting to drill out the problem fastener. A [rotary tool](#) with a cut-off wheel can keep the car's interior pristine when removing a troubled fastener.

The rotary tool is also suitable for sanding small areas or even some windshield repair items, such as clearing the impact point to install the resin. There are many uses for the rotary tool, and they more than pay for themselves with time. Remember to replace the troubled fastener to avoid having the same issue in the future.

Dremel 8220 12-Volt Max Cordless Rotary Tool Kit



Testing Relays has Never Been Easier with a Relay Tester

A voltage meter can evaluate a relay and sometimes even push the relay under a load. With the flip of a switch, a person can assess whether a relay is a problem or if load testing the relay is more accurate; some tools will also help with that process. Having a relay tester can save hours of guessing using the voltage meter.

Different Relay Testers Do Different Things

Select the Correct One For The Job But Have All Options

- **On/Off Switch Relays Control the Power to Isolate the Relay**
- **Relay Testers Check Connections with Dangles**
- **Relay Testers can Test the Relay Under a Full Electrical Load**

Relays are tricky and can send false signals; at times, a relay could test “bad” only because the ground wire is terrible; with a [relay tester](#), a person can narrow down the electrical problem much faster. Which also means less frustration and more confidence that the diagnosis is correct.

GODIAG GT101 Power Circuit Probe Tester, Auto Short Circuit, Relay, Fuse, and Voltage Tester



Use Older Car Parts Sparingly or for A Specific Part

Older car parts are built to last a specific period and wear out with the more moving parts a component contains. Therefore, some options may no longer be available due to the vehicle's age and should be replaced with [modern parts](#). For instance, finding the original alternator that works on a Classic car may be near impossible, but the auto parts shop will have an equivalent piece.

Save the original parts on classic cars for door latches, license plate frames, and other non-moving parts. Use older part dealers sparingly also; if the alternator goes out on a ninety-five model, the alternator on the ninety-five models the broker has is going to go out soon; it was only built to last a specified amount of time.

Do Not Jump The Gun and Make Unfounded Assumptions

Properly testing the original diagnosis is imperative to lowering the frustration levels of the job. So many times, people automatically assume that the most frequent problem is the problem they are facing. For instance, when the [vents are blowing hot air](#). Most people's first reaction is to run down to the retail store and pick up some refrigerant to refill the compressor.

The solution might be intermittent if the problem was never diagnosed because of an improper assumption. For example, the Freon may have been low and needed a refill, but the O-rings also needed replacement because that is where the hidden leak occurs. An O-ring replacement on the connections of the compressor or the ports could be the simple solution that saves thousands in future repairs.

A Simple tool such as the [refrigerant leak detector](#) will save thousands of dollars. However, the a/c system is the most complex and sensitive system on the entire vehicle and improper care can wear down components quickly due to the constant temperature and pressure that the A/C/ System is under.

A battery could be the culprit to a slow start, but so could the starter and alternator. When an incorrect assumption is made, parts that did not have anything to do with the problem are replaced instead of the problem part. This leads to increased frustration and costs as a person struggles to locate the situation. Always test the hypothesis of the problem.

Elitech WJL-6000 Freon Leak Detector



Conclusion

Hopefully you found this guide helpful. These tips, tricks, and hacks are only a few things a person can do to make working on the car easier. In addition, there are many hidden gems of tools, better quality materials, and gadgets that a person can make to help. Just understand the system and how it interacts with the car before trying a new technique; this tip is the best.

References:

Car Wizard

<https://www.youtube.com/watch?v=7Jyy1VQnxJo&t=909s>

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<https://motorhills.com/16-reasons-why-your-car-feels-sluggish/>
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<https://motorhills.com/how-to-tell-if-a-car-ac-compressor-is-bad-7-signs/>

NHTSA - United States Department of Transportation

[Safety Issues & Recalls](#)

AutoZone

[Free Battery Testing & Charging](#)

Amazon

[Cataclean Complete Engine, Fuel, and Exhaust System Cleaner - 15.8 oz.](#)
[DURATECH Super-Thin Open End Wrench Set, Metric, 8-Piece, with Rolling Pouch](#)
[BlueDriver Bluetooth Pro OBDII Scan Tool for iPhone & Android](#)
[GODIAG GT101 Power Circuit Probe Tester](#)
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