



QUICK TIPS FOR CAR CARE CONFIDENCE

Here are four tips that will empower you to take charge and reduce stress at your next automotive service visit:

- Share any repair concerns you may have with the service advisor at the shop. A good advisor will listen carefully and address all issues to your satisfaction. If you feel your concerns are being ignored or brushed aside, ask to speak to someone else.
- Service your vehicle according to the factory recommended maintenance schedule. If you feel pressured to buy other services without a good explanation of why they are needed, take your business elsewhere.
- Insist on a written estimate that clearly states what will be done and how much it will cost before any work is begun. If the estimate is vague, ask that it be clarified.
- Look for the AAA Approved Auto Repair sign. Shops displaying this sign have been thoroughly inspected and investigated by AAA, and meet the association's high standards of service.



**Approved
Auto Repair**

Remember, except for certain warranty repairs, you are not obligated to have your car serviced at any given facility. If a repair shop does not meet your needs and expectations, use the information in this guide to help you find one that does.



AAA Guide to Auto Repair



Welcome,

As the motorist's most trusted advocate, AAA knows that obtaining automotive service is a stressful experience for many vehicle owners. To help improve that experience, this AAA Guide to Auto Repair discusses common auto repair concerns in a way we hope you will find both interesting and educational. Taking advantage of the information in this Guide can empower you to make more informed car care decisions that will better protect you, your passengers, your vehicle, and your wallet.

Sincerely,



John Nielsen
Managing Director,
Automotive Engineering and Repair



AAA Guide to Auto Repair

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INTRODUCTION

Few of us enjoy taking our car into the shop. It's inconvenient and costs money we would rather spend on something else. Media reports of repair industry dishonesty don't help. They make even the savviest among us feel a twinge of paranoia when we enter a garage. Then, when it's time to pay, we often pull out our checkbook or debit/credit card with a nagging fear that we are being overcharged.

Although our concerns about auto repair may be partially justified, they are often aggravated by one or more of the following factors:

- We don't understand how modern automobiles work. This was true back when cars were completely mechanical devices, and it's even more true today when computers and technology impact nearly every part of the vehicle.
- We lack confidence in our ability to recognize and explain our automotive service needs. The maintenance and repair of modern cars differs from that of older vehicles, and a lack of clear communication is the single biggest cause of auto repair dissatisfaction.
- We don't always grasp the estimating process, or what it means when we are quoted a price to diagnose or repair a problem. Ironically, a good estimate is a powerful tool for reducing repair-related stress.
- We are concerned that the person working on our car may not be able to fix it right the first time, or may cause additional problems.
- We worry that the repair facility is selling us unneeded services just to boost its bottom line.

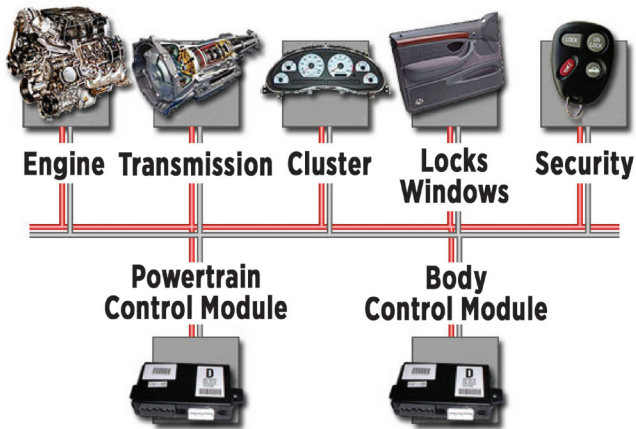
So what can we, as vehicle owners, do to reduce the stress that comes with obtaining auto repairs? We can start by becoming better educated about the concerns listed above.

This guide will add to your understanding of modern vehicles, offer tips on communicating with repair shops, explain the benefits of written estimates, explore the qualifications of modern technicians, and help you choose an auto repair facility you can trust.

TODAY'S CAR: A MOBILE COMPUTER NETWORK

In the 1980s, automakers began using computers to help control engine exhaust emissions. Since then, computers have become smaller and more powerful, and their automotive uses have grown far beyond engine control. Cars today can contain dozens of microprocessors that constantly “talk” to one another over a local area network. These processors control not just the engine, but most everything else as well — from interior lighting to GPS satellite navigation.

Vehicle Wiring: CAN Bus Network



The good news when it comes to understanding computer-controlled systems is that they all work in basically the same way. Here's a simplified explanation of how a modern automotive engine control system operates:

- **Sensors** on the engine and throughout the car gather information on the current operating conditions. Common sensors include those used to monitor throttle position, coolant temperature, intake manifold pressure, crankshaft position, engine rpm and vehicle speed.
- The sensor signals go to a computer called the **Powertrain Control Module (PCM)** that evaluates the inputs and generates various outputs to optimize engine performance, exhaust emissions and fuel economy.
- The PCM output signals control **actuators** that regulate engine rpm, fuel delivery, spark timing and other powertrain components and systems. Actuators come in many forms, but the most common are electronic modules and electric relays, motors and solenoids.

Modern electronics have helped make cars more reliable. The vehicles of today require far less maintenance than older cars. Many routine services are required less often and others, such as the “tune up,” have been eliminated altogether.

However, electronics have also made cars more complex. This can make identifying the source of a problem more challenging. Even though today's technicians and tools are better than ever, diagnosing problems on modern automobiles is generally more time consuming — and therefore more expensive — than in the past.

Computer Diagnosis: What Does It Mean?

What comes to mind when you hear the words, “your vehicle needs a computer diagnosis to find the problem?” Do you envision a technician connecting the car to a big machine with flashing lights that “beeps” a few times and then prints out a description of the problem and its solution? Unfortunately, it's not that simple.

Modern electronic engine control systems “know” and monitor the operating parameters of every component. When the input from a sensor falls outside normal limits for too long, or the output signal to an actuator repeatedly fails to generate the expected result, the PCM stores a Diagnostic Trouble Code (DTC). If a stored code indicates a problem that may increase exhaust emissions, the PCM also illuminates the “Check Engine” light on the dash. However, many types of codes can be set with no indication to the driver.





To access DTCs, technicians connect a “scan” tool to a Diagnostic Link Connector that is commonly located under the driver’s side of the instrument panel. The scan tool displays any stored codes, and many motorists think that’s where diagnosis ends. They question why they should have to pay, sometimes dearly, for such a simple procedure.

In reality, pulling trouble codes is just the first step in a computer diagnostic procedure. DTCs don’t tell the technician if a part is bad, they only indicate that the computer has seen something it didn’t expect in a particular circuit. The problem may be the part associated with the trouble code, but it could just as easily be a poor connection or a shorted or open circuit in the part’s electrical wiring.

Sometimes, trouble codes are set when there is nothing wrong with the engine control system. This happens when a mechanical problem, like a vacuum leak, creates engine operating conditions that cause a sensor to generate an out-of-spec signal. The PCM will then attempt to compensate, which may cause an actuator to operate outside its normal range, setting yet another trouble code!

To help pinpoint the problem, a technician must perform additional tests. These can range from mechanical checks, like engine compression, to more in-depth electronic diagnosis. One common operation involves using test equipment to access the engine control system network data stream. This allows the technician to view real-time sensor data and manually operate the system actuators.

The ability to determine which additional tests are needed, and to accurately interpret both test results and computer network data, comes from training and experience. Today’s technicians use vehicle computer diagnosis in much the same way surgeons employ medical testing. In both cases, combining test results with expert knowledge and skilled hands can lead to a diagnosis and a cure.

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Tracking Down A Problem

To help understand how a “simple” repair may take a while to diagnose, let’s consider a common problem and its possible causes. Imagine your car has begun to hesitate when you press down on the accelerator. In a 1970s vehicle without computer controls there were around half a dozen common causes for such a problem. But, on a modern car here are just some of the possibilities a technician may need to check:

- Low fuel pressure — faulty fuel pump
- Low fuel pressure — clogged fuel filter
- Low fuel pressure — faulty fuel pressure regulator
- Dirty injectors that deliver too much or too little fuel
- Faulty spark plugs or spark plug wires
- Faulty ignition module or coil pack
- Engine knock causing reduced spark timing advance
- Defective mass airflow sensor
- Defective air charge temperature sensor
- Defective coolant temperature sensor
- Defective throttle position sensor
- Defective manifold absolute pressure sensor
- Defective camshaft position sensor
- Defective crankshaft position sensor
- Defective exhaust gas recirculation (EGR) valve or its position sensor
- Faulty power or ground connections in the engine control system
- Defective PCM, or one that needs to be reprogrammed
- Excessive exhaust back pressure
- Improper torque converter clutch engagement

Because the number of potential problem sources has grown, automotive diagnosis today requires well-trained and properly-equipped technicians who employ systematic diagnostic processes based on both formal training and real-world experience. We’ll have more to say about technicians later, but right now let’s talk about the important role communication plays in obtaining quality vehicle service.



BETTER COMMUNICATION = BETTER SERVICE

Not every automotive problem requires computer diagnosis. In many cases *you* may hold the key to unlocking your vehicle's problem. After all, you know your car better than anyone else, and will be first to notice when its performance changes. The more information you can share with the technician about what you are experiencing, the better prepared he/she will be to identify the problem in a timely and cost effective manner.

When discussing car trouble with a shop, some drivers will offer a diagnosis or request a specific service operation. They think this makes them appear knowledgeable, or hope that by asking for "just a tune-up" they can limit the repair costs. Unfortunately, this approach often results in spending money on work that has no effect on the problem. A much better approach is to simply describe the symptoms your car exhibits.

Putting your observations down in writing before you head to the shop can help prevent forgetting anything. Also, be honest and practice full disclosure. If your vehicle was worked on by another shop recently, or you tried to fix the problem yourself, let the technician know as this will affect how they approach the diagnosis.

Be precise when describing symptoms. Refer to the driver and passenger sides of the car (not left and right). Explain the symptoms in terms of your senses; what do you see, hear, smell, and feel? Avoid technical jargon unless you are sure what a term or phrase means. You may fear that some of your observations are silly or irrelevant, but state them anyway. Something that seems minor to you could save the technician a lot of time, and you a lot of money.

Information To Share

- Are any warning lights on?
- When did you first notice the problem?
- What feels different to you? (steering pulls, brake pedal spongy, vibration, etc.)
- What do you hear? (rattling, backfires, screeching, etc.)
- Do you notice any unusual smells? (gasoline, smoke, burning rubber, etc.)
- Do you see any leaks or fluid stains? Where? What color is the fluid?
- When does the problem occur? (time of day, weather conditions, vehicle load, accelerating, braking, turning, etc.)
- When do you *not* notice the problem?

Sample Problem Descriptions

- When driving over bumps, I hear a rattle under the front of the car on the passenger side.
- When I apply the brakes, the steering pulls to the driver's side and there is a grinding noise.
- When driving up a hill in the rain the car begins to shake and loses power.
- The car stalls at stoplights, and when I restart the engine black smoke comes from the tail pipe and there is the smell of gasoline.

WHAT TO MAINTAIN — AND WHEN

Not every visit to a repair facility is for problem diagnosis. Most of the time you are taking your vehicle in for routine maintenance. But, how do you know what services are needed and when? The answer is simple; follow the factory recommended maintenance schedule in your owner's manual or service booklet.

Severe Service

Factory maintenance schedules sometimes offer two options, one for cars driven in "normal" service, and another for those used in "severe" operating conditions. The exact definition of severe service varies with the automaker, but it usually involves operating your vehicle under one or more of the following conditions:

- Primarily short trips (5 miles or less)
- Extremely hot, cold, or dusty climates
- Sustained stop-and-go driving
- Carrying heavy loads or towing a trailer.

If your vehicle use falls under the severe service definition in your owner's manual, maintain your car using the more rigorous schedule. However, if you drive your car under normal conditions, be wary of spending hard-earned money on services your car may not need or benefit from.

Too frequent oil changes are a good example of unnecessary maintenance. It used to be common practice to recommend an oil change every 3,000 miles. However, with modern lubricants, most automakers now recommend oil change intervals of 5,000 to 7,500 miles. In fact, if your car's engine requires full-synthetic motor oil, it might go as far as 15,000 miles between services. Remember, you can't judge engine oil condition by color. Follow the factory maintenance schedule instead.



Service Due Soon

Maintenance Reminder Systems

If you drive a newer vehicle, it probably has an electronic maintenance reminder system that makes mileage-based schedules obsolete. In-vehicle reminder systems take various operating conditions into account, and illuminate a reminder on the dash when it is time to change take your car in for an oil change and other services. If your car has this type of system, trust it to guide your maintenance visits.



THE VALUE OF WRITTEN ESTIMATES

Many states require that repair facilities provide customers with written estimates that cannot be exceeded by more than a specified amount (usually 10%) without prior approval. Even if written estimates are not required in your area, you should insist on one whenever you have your vehicle serviced. A written estimate is a contract between you and the repair shop that describes what will be done and how much it will cost. Getting this information in writing will help prevent problems down the road.

Some states allow you to waive your right to a written estimate, but this is not recommended — even if you trust the repair shop. A better option if you don't want a full written estimate is to require that the shop contact you in advance if the repairs will cost more than a certain amount. Make sure this condition and the maximum dollar amount are clearly stated on the repair order.

When you sign a repair order you agree to be responsible for the charges. Read the estimate carefully, and ask for an explanation of anything you don't understand. The repair order should contain clear instructions such as: "Check for a hesitation when the accelerator is pressed." If it says something vague like, "Check for noise," ask that the instructions be clarified before you sign.

If you are facing a major repair, consider getting a second opinion. Obtaining another estimate may be inconvenient and cost extra, but it will confirm the initial diagnosis and could save you money in the long run.

Auto repair estimates typically include costs for labor time and replacement parts needed to perform the work. Let's look at each of these a little closer.

Repair Labor Rates

Auto repair labor rates vary widely across the country, and even within the same city. The typical range is \$50 to \$150 an hour, based in large part on the shop's cost of doing business. Factors used to establish labor rates include:

- Average local cost of labor/benefits
- Vehicle makes and models serviced
- Facility type (independent, dealer, etc.)
- Facility overhead (mortgage/rent, utilities, tools, training, taxes, etc.)
- Skill level and certifications of technicians

Keep in mind that the technician does not receive the hourly rate you are quoted. That rate reflects his/her pay plus a portion of the facility's business expenses. Running a repair shop today is a costly undertaking. High-tech diagnostic tools and other equipment needed to service modern vehicles can easily require a six-figure investment.

Most shops quote labor charges using a "flat rate" manual or computer program that provides the average time it takes an experienced technician to perform a given repair. That flat rate time is then multiplied by the shop's hourly labor rate to reach the total labor charge for the service.



Customer Information		Summary		Parts	Labor		
Mileage:	112,649	Subtotal	427.25	160.00			
Last Name:	Public	First Name:	John	<input checked="" type="checkbox"/> Shop Supplies	16.00		
Address:	123 Hometown Avenue	<input checked="" type="checkbox"/> Hazardous Materials			5.99		
Zip/Postal Code:	12345	State/Province:	NY	Discount	0.00 0.00		
City:	Schenectady	Tax	<input checked="" type="checkbox"/> Parts <input checked="" type="checkbox"/> Labor		29.91 11.20		
Home Phone:	800-555-1212	Office Phone:		Column Total	473.16 177.19		
Email:		Grand Total:			650.35		
Add Item		Parts: \$ 427.25	Labor: \$ 160.00	Subtotal: \$587.25	Save		
Type	Description	Qty/Hrs	Price/Rate	Total	Part No	Locate Part	Delete All
Labor	ALTERNATOR ASSEMBLY - Remove & Replace	1.9	80.00	152.00			Del Coy
Labor	(Combination) ALTERNATOR DRIVE BELT PULLEY - Remove & Replace	0.1	80.00	8.00			Del Coy
Part	ALTERNATOR ASSEMBLY	1.00	427.25	427.25	31100-RJA-A02	<input type="checkbox"/>	Del Coy

Some people think flat-rate pricing is a scheme to overcharge customers. Actually, it is a system that allows shops to give fair and consistent repair estimates while paying their technicians based on ability. For example, let's say the flat-rate time to replace a starter is two hours. The shop quotes this rate to its customers, and pays its technicians two times their hourly wage for doing the work. If an experienced technician completes the job in less time, he effectively earns a higher hourly rate. If an apprentice takes longer, he effectively earns less. Either way, the customer pays the same amount.

Not all services can be estimated using the flat-rate system. Diagnostic work is a good example. Every troubleshooting process is unique, so many repair shops quote a basic diagnostic charge that includes certain procedures and a maximum time limit. If the problem cannot be identified within that time, they will contact you, describe what has been done to that point, and ask for more time (and money) to do further diagnosis. While this can be frustrating for both you and the shop, there is no practical alternative, especially when it comes to complex or intermittent troubles.

For some problems, electrical issues in particular, it is not unusual for the diagnosis cost to exceed that of the actual repair. For example, a shop may spend two hours tracking down an open circuit in a wire under the dash, and then fix the problem in five minutes with some solder and electrical tape. In these situations, you are mainly paying for the expertise required to locate the problem, not the repair itself.

Flat-rate pricing allows shops to give fair and consistent repair estimates.

Repair Parts

Replacement parts can make up a big part of repair costs, particularly if a major component is involved. Like repair labor rates, replacement part prices at repair facilities include a markup for shop overhead, and a labor warranty in case the part fails and needs to be replaced.

There are many grades of replacement auto parts and you generally get what you pay for. Most of us can't tell a premium part from a lesser one, so we trust the judgment of our repair provider. Feel free to ask a shop what type of parts they install. Dealers mostly use original equipment parts from vehicle manufacturers, while independent shops normally use professional grade replacement parts made by reputable aftermarket companies.

On certain components, such as batteries, starters and alternators, a repair shop may offer a choice of replacements at different prices. Generally, the less expensive parts have shorter warranties. If you don't plan on keeping your vehicle a long time, a discount part may be a viable option.

If you are concerned about whether the parts you are paying for will actually be installed, ask to have the old parts returned to you. Most shops are happy to do this, just be sure to let them know when you drop off your car so they can set the parts aside. Be aware that most remanufactured parts are sold on an exchange basis. You can inspect the old part, but it will be retained by the shop and returned to the supplier unless you want to pay an additional "core charge" to keep the faulty component.

Menu Pricing

Some repair facilities advertise certain jobs using "package" or "menu" pricing. You have probably seen coupons for \$24.95 oil changes that include the parts and labor required to do the job *on most cars*. Or maybe you have read ads that offer a "brake job" for \$99.95 per axle — *additional work extra*. Menu pricing is a legitimate marketing tool, but be sure to note any limitations and exclusions.

LUBE, OIL & FILTER PLUS

\$24.95

**Includes: Up To 5 Qts.
House Bulk Oil & Standard Filter**

Lube Chassis (where applicable), Check: Tire Pressure
• Fluid Levels • Windshield Wipers • Belts/Hoses.

ABC Auto Repair
Your Premier Automotive Maintenance Center

Discount applies to regular retail pricing
Valid at participating locations through 3/31/09.
Not valid with any other offers or coupons.
Must present coupon at time of service. ELWEBA

For example, if your car requires synthetic motor oil, more than five quarts of oil, or an uncommon filter, an oil change will cost more than \$24.95. Similarly, most brake jobs will require more work than can be included in a \$99.95 special. When you purchase menu-priced services, always get a written estimate to help prevent any misunderstandings.

IF YOUR CAR IS UNDER WARRANTY

If your vehicle or any required repairs are covered by a warranty, special conditions will apply to the estimating and repair processes. Common repair warranty situations are described below. See your owner's manual or warranty booklet for details on the coverages that apply to your car.

- If your vehicle is still covered by a manufacturer's new-car **bumper-to-bumper warranty**, any needed repairs will be done at no cost by an authorized dealer. Most factory warranties do not cover routine maintenance or components, such as brakes and clutches, that wear out in normal use — although there are exceptions.
- If your car is still covered by an automaker's **extended powertrain warranty**, certain engine, transmission and driveline repairs will be done at little or no cost by an authorized dealer for a specified period after the bumper-to-bumper warranty expires.
- All 1995 and newer vehicles have a Federally mandated **major emission control component warranty** that covers the PCM and catalytic converter(s) for eight years or 80,000 miles, whichever comes first. An authorized dealer must replace these parts at no charge if they fail within the warranty period. However, you may have to pay for other repairs needed to prevent a repeat failure of the defective part.
- If you purchased an **extended warranty** to help cover repair costs, it is essential that you tell the repair facility before work is begun. Under these policies, covered repairs must be pre-authorized by the warranty company or it will deny payment. Most repair facilities will work with the warranty company to obtain the needed authorization, but warranty payment practices vary. In some cases, the company will pay the repair shop directly, in others you will have to pay for the repairs and then be reimbursed by the warranty company.
- Most auto repairs today are covered by a **shop warranty** of at least 12 months or 12,000 miles, whichever comes first. If you have a problem with a repair that is still covered under a warranty, take your car back to the shop that did the work and ask them to fix it. If you are traveling when a covered part fails, *before you authorize any repairs*, contact the shop that did the original work and ask how they want to handle the situation. Failure to do so could void your warranty.



WHEN REPAIRS ARE COMPLETE

Try to pick up your car at least half an hour before the repair shop closes. This gives you time for two important tasks. First, read over your bill carefully and ask about anything you don't understand. The invoice should describe the work done and include the names of any replaced parts, not just the part numbers. Second, take your car for a test drive to make sure all your concerns have been addressed.

If everything is fine, give the shop positive scores on any satisfaction survey you may receive. If your car had a particularly tough problem, a thank you note to the service advisor and/or technician would be appreciated, and can strengthen your relationship with the shop.

On the other hand, if any issue has not been fixed, take the car back to the facility *immediately*. Politely point out the problem, clearly state the correction you desire, then give the repair shop a reasonable opportunity to resolve the situation.

If a problem persists, and the shop is unresponsive to your concerns, you can pursue the matter with the Better Business Bureau and/or your state's department of consumer affairs or Attorney General's office. If you are a AAA member and the shop is a AAA Approved Auto Repair facility, call AAA for help in resolving the dispute.

TODAY'S TECHNICIAN

If you think your car is being serviced by a "grease monkey" or someone who lacked other career options, your assumption is more out-of-date than a carburetor. Auto repair today is a demanding, high-tech industry that is undergoing constant change. Staying abreast of the latest diagnostic and service procedures requires a commitment to ongoing training and certification, which are two of the best ways to assess a technician's abilities.

Certification And Training

Since 1972, the independent, non-profit National Institute for Automotive Service Excellence (ASE) has been testing and certifying technicians. Tests are held throughout the year and cover real-world skills and technologies. In addition to passing a written test, technicians who want ASE certification must document at least two years of hands-on industry experience. Once a certification is awarded, the technician must retest every five years to remain certified.

ASE certifications are available that cover cars, trucks, buses, collision repair, parts specialists, service advisors and more. Today, more than 300,000 ASE-certified repair professionals work in the auto repair industry. Eight core tests cover automotive mechanical repair, and those who pass them all receive the title of Certified Master Automobile Technician.



National Institute for
**AUTOMOTIVE
SERVICE
EXCELLENCE**

Other common technician certifications are those issued by automakers to dealer personnel who complete factory service training classes. Some automakers endorse ASE certification in addition to their own. Training courses are also offered by community colleges, technical training companies, automotive parts suppliers and service equipment manufacturers. Repair shops often post technician credentials for customer viewing. If you don't see any, ask about them.

**Today, approximately 300,000
ASE-certified repair professionals
work in the auto repair industry.**

FINDING A REPAIR FACILITY YOU CAN TRUST

AAA believes the best way to maintain a vehicle is to choose a quality full-service repair shop and let them do all of the work on your car. While some routine tasks may cost a little more, your vehicle will be serviced by professionals who are trained to identify potential problems. This helps prevent breakdowns, and often saves money by allowing you to make a small repair now rather than a bigger one later. Also, as the shop gets to know you and your vehicle, they can better advise you on any upcoming work that will be needed.

The best time to look for a quality repair shop is before you need one. Ask your family and friends for recommendations, and visit AAA.com/autorepair to locate nearby AAA-affiliated repair shops. When discussing repair facilities, ask people about their experiences. Were they charged the price quoted? Was their car ready when promised? Did the staff treat them courteously? Were any questions about the work answered to their satisfaction?

Repair Facility Types

When seeking a full-service auto repair facility, you have three basic choices:

- **Dealerships** – Dealer service departments are very familiar with the makes of cars they sell. They know common problems, have factory-trained technicians with the latest equipment, and are aware of technical service bulletins and other special service advisories. However, the number of dealers is limited so you may have to drive farther to get your car serviced at one.
- **Independents** – Quality independent repair facilities may be a little less expensive than dealers, and they tend to have higher overall satisfaction ratings. Customers at independent shops are more likely to deal directly with the facility owner or the technician working on their car, which makes it easier to develop good relationships. However, while there are many more independent shops than dealers, they vary widely in quality which makes your choice of facility very important.
- **Specialists** – Some independent repair shops specialize in certain vehicle makes or systems. By focusing on a limited part of the market, these shops can provide very efficient and effective service. A specialty shop may be a good choice if you drive the make of vehicle it services, or need the type of repair it provides.

Once you have identified some potential repair facilities, look into them a bit further. How long have they been open? Time in business can be a good indicator of shop quality. How well do they deal with consumer complaints? You can check with the Better Business Bureau and state department of consumer affairs or Attorney General's office. Online consumer sites and social networks are other sources of feedback on repair shops.



Repair Facility Evaluation

After you have narrowed your list to one preferred facility, pay them a visit for a minor job like an oil change or tire rotation. While waiting for the work to be done, talk with shop employees and look the facility over keeping in mind the criteria below.

- **Appearance** – A clean, well-organized facility reflects attention to detail and an effort to maintain a professional image.
- **Amenities** – Good facilities have a comfortable waiting area and clean restrooms. Many shops now offer pick-up and drop-off service for the convenience of customers.
- **Technicians** – Look for ASE certifications or the equivalent factory service training. If there are no testing or training certificates posted, ask about them.
- **Equipment** – Quality repair shops have up-to-date service equipment and repair data. Most shops today have Internet access to extensive repair information, and may also have an on-site service library of CD/DVD ROMs and printed manuals.
- **Warranty** – Quality shops offer at least a 12-month/12,000-mile parts and labor warranty. If you travel regularly, make sure the warranty is honored nationally.
- **AAA Approved Auto Repair sign** – shops that display this sign meet AAA's high standards.

The best time to look for a quality repair shop is before you need one.

THE APPROVED AUTO REPAIR (AAR) PROGRAM

AAA created the AAR program more than 40 years ago to help motorists find high-quality automotive service. Today, there are nearly 7,000 AAR shops across North America. The AAR program includes dealer service departments, independent garages, and specialty repair providers. To locate an AAR facility near you, visit AAA.com/autorepair.

AAR Program Standards

Every AAA-approved facility undergoes a thorough investigation and less than half of all applicants are approved. AAA considers all of the areas discussed in the previous section, and also evaluates:

- **Customer Satisfaction** – Based on a survey of recent customers, the facility must have a satisfaction rating of 90 percent or higher.
- **Customer Service** – A supervisor must always be available to provide quality control, and service reception personnel must wear visible identification and be competent to discuss service and repairs with customers.
- **Staff Qualifications/Training** – The facility must employ ASE-certified or factory-trained technicians in each area of service it offers, and have a training program in place to keep technicians up-to-date.
- **Tools/Equipment** – The facility must have the tools, equipment and information needed to provide the services it offers on the vehicle makes it accepts for repair. A limited range of services may be sublet.
- **Insurance Coverage** – The facility must meet minimum insurance requirements to protect customers and vehicles at the shop.
- **Financial Stability** – The facility must have a history of financial security that will support AAA endorsement of their operations.

After approval, each AAR shop is visited quarterly, reinspected annually, and monitored for ongoing customer satisfaction to ensure compliance with AAA standards.

To locate an AAR facility
near you, visit AAA.com/autorepair.



AAA Member Benefits

In addition to the added peace of mind that comes with AAA approval, AAA members receive these benefits when they have their vehicles serviced at AAR shops:

- **Priority Service** – The shop will perform a basic assessment of the problem within 60 minutes when a member's car is towed in due to a breakdown.
- **Alternate Transportation** – If a member's disabled vehicle cannot be repaired in a timely manner, the AAR facility will assist him/her in obtaining alternate transportation.
- **Written Estimate** – Members will receive a written estimate of the cost of all work to be performed on their vehicle. The final cost may not exceed the estimate by more than 10 percent unless authorized in advance.
- **Discount** – Members will receive a discount on all retail-priced auto repairs (may not be combined with other special offers).
- **Warranty** – Unless otherwise stated in writing before work is begun, all repairs (both parts and labor) are guaranteed for a minimum of 24 months or 24,000 miles, whichever comes first, under normal operating conditions.
- **Free Maintenance Inspection** – On request with other paid repairs, a member's vehicle will be inspected at no charge for items that frequently contribute to roadside breakdowns.
- **Return of Parts** – Replaced parts will be given to the member, provided he/she requests them at the time the vehicle is delivered for service. Parts that must be returned to the manufacturer under a warranty or exchange program are excluded.
- **Dispute Resolution** – AAA will investigate any dispute between a AAA member and an AAR facility. AAA's resolution decision is binding on the facility, but the member is free to seek further recourse.

In addition to the above, members who use their AAA Member Rewards credit card to make purchases earn reward points that can be redeemed for cash vouchers good for future repairs at AAR shops.