

Handy

CAR CARE MANUAL



M & M
AUTOMOTIVE



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Disclaimer : This brochure is provided for informational purposes only and should not be substituted for the advice of a qualified professional. We do not accept any responsibility for any loss which may arise from reliance on information contained in this brochure. If you have individual issues you should consult with a qualified professional of your choice.

INTRODUCTION TO CAR CARE

Become a car care expert




From our experience, car owners typically fall into one of two categories: **those who do their own basic vehicle maintenance and those that solely rely on us to handle their vehicle's repairs.** We obviously see the second category a bit more and that's Y-O-U! The individual that downloaded this guide, the one that knows that their vehicle is one of life's largest investments and it's crucial to take care of it! You rely on it to safely take you, your family and friends back and forth to almost everywhere! Without a dependable car, life would be much more difficult, which is why we encourage you to take care of your investment.

And we know, spending money on maintaining a car isn't always fun, but just think how often you use it and how much you paid for it! Generally speaking, the better you treat your car, the longer it's going to last. Adding months and

years to the life of your vehicle is like adding money to your wallet.

Lastly, let's say you intend to sell your car in a few years. Taking care of your car and being able to show that maintenance history is going to mean a better resale value for your car. A better resale means more money to put towards your next ride.



In total, Americans spent \$164 billion on car parts and service in 2009 -14.5% of their total spending

Let's get started with simple ways to take better care of your car not just to save you MONEY, but to become a more educated car or truck owner!



HOW TO RAISE YOUR VEHICLE'S HOOD

Your safety is our biggest priority

Before you can check items like your oil, windshield wiper fluid and even your vehicle's battery, it's crucial to know how to get the hood of your vehicle open.

- Find your hood release and pop open the hood
- With one hand, raise the hood as far as it will go
- With the other hand, feel along the area between the hood and the grill for the safety catch. Release it and raise the hood the rest of the way
- Secure the hood if necessary
- There should also be helpful information about raising your hood in your owner's manual. Please refer to it if you're still having difficulty or swing on by our shop and we will gladly show you how to get it open.



For step by step instructions on how to raise your hood, see the next page...

Step-By-Step

1. Locate the lever on the driver's side of your vehicle & lift up to unlock the hood of the vehicle.
2. Under the bonnet, there is a hood release located in the middle or right side of the vehicle under the hood – in a reachable location. Unhook the latch and carefully lift up the hood.
3. Once the hood is open, secure the safety mechanism if your vehicle has one. If it does not, ensure that the hood is securely opened & stable before looking under the hood.



SAFTY FACTS



Sometimes the safety catch lever can be hard to release. It may be essential to push down on the hood just slightly to move the safety catch lever.



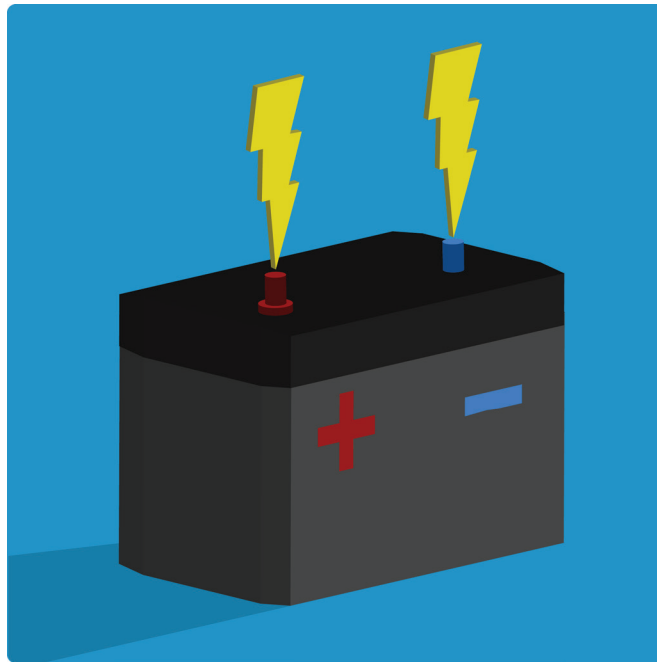
When you close the hood of the car make sure that it is closed completely and cannot be lifted if you pull up on it.



On some vehicles, the hood is held up by two gas-pressurized cylinders known as hood shocks. If the hood doesn't feel secure, gas may have leaked out of these units and the hood could come down at any moment. If you're not sure, bring it in to our shop!

HOW TO CHECK YOUR CAR BATTERY'S AGE

Avoid being stranded

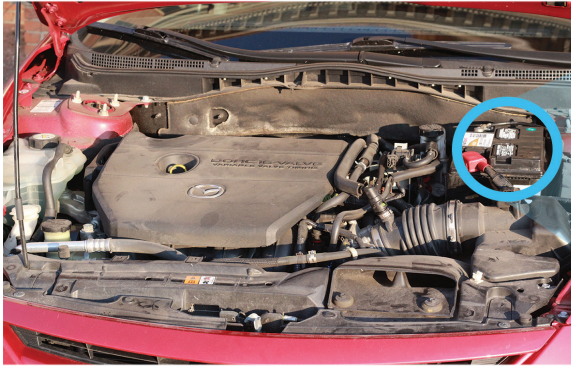


Nothing is worse than being stranded in a parking lot or on the side of a road due to a dead battery. Did you know that car batteries tend to only last for 3-4 years on average?

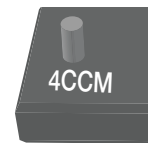
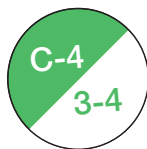
If your engine will not crank at all when you turn the ignition key, or if it cranks very slowly, then the battery may need a charge. The "jump-start" is one quick method of charging the battery; however, a severely dead battery will most likely need to be replaced.

Checking your car battery's age is a simple task

As always, swing by our shop and we can do it for you.



C = March 4 = 2004



The first digit from the left side is a letter which stands for the month of the year. A = January; B = February; C = March, etc.

The second digit from the left is the year that the battery was shipped from the factory. 5 = 2005, 6 = 2006, 7 = 2007, 8 = 2008, 9 = 2009, 0 = 2010, 1 = 2011, 2 = 2012, 3 = 2013, 4 = 2014.

Fun Facts About Batteries

- If you live in a warmer climate, your battery life is often shorter
- If you drive 20 minutes or less regularly, your battery drains faster – it does not allow your battery to fully charge
- Using the horn, stereo, headlights and other accessories when your car is off can actually drain your battery life a lot faster



HOW OFTEN YOU SHOULD CHANGE AND CHECK YOUR OIL

A simple one minute investment

Unless you're driving a car that's more than ten years old, there's really no reason to change your oil at 3,000 miles anymore. Your vehicle's owner's manual will tell you how often you need to change your oil. If you drive a newer model, the car may just tell you when you need to change your oil

The graphic here provides a rule of thumb for when to change your oil dependent on your driving style.

Expected Oil Change Intervals



Highway Driving

7,000-12,000 Miles

Towing

5,000 to 7,000 Miles

Typical Mixed Use

4,000 to 7,000 Miles

Urban Driving

4,000-6,000 Miles

Frequent Trips Less Than 2 Miles

3,000 to 4,000 Miles

How to check your car's engine oil

A one-minute investment

Checking it on a regular basis is the key part of keeping your engine running healthy and getting the most miles out of it.

FIRST make sure the car is parked on level ground and that you've warmed up the vehicle for a few minutes prior.

With the engine off, open the car's hood and pull the dipstick out from the engine and wipe any oil off from its end. Then insert the dipstick back into its cylinder and push it all the way back in.



Pull it back out, and this time look at both sides of the dipstick to see where the oil is on the end. Every dipstick has some way of indicating the proper oil level, whether it is two pinholes, the letters L and H for low and high, or even the words MIN and MAX. Refer to the owner's manual, if necessary. If the top of the oil is between the two marks, the level is fine.



If everything's okay, wipe off the dipstick again and insert it back into its cylinder. Close the hood and you're finished – easy as that!

ITEMS YOU SHOULD ALWAYS CARRY IN YOUR VEHICLE

Ways to be prepared on the road

Most of us have had some kind of automobile-related emergency, ranging from the trivial spilled hot coffee, to the more serious tire blowout.

“Always be prepared!” That’s the Boy Scout motto. Most people keep their tools at home. But if you aren’t at home, you probably drove your car to get to wherever you are.

Even if you have roadside-assistance coverage, you usually need access to a phone in order to contact them and you may have to wait on the side of the road for a long duration before help arrives. That’s why we recommend that drivers carry certain items in their vehicle, even if your vehicle is used predominantly for around-town driving!



This basic kit can be accompanied with additional items if you go on a long-distance trip or have to deal with winter weather conditions.

- Vehicle manual
- Auto escape tool
- Spare tire
- Cell phone
- Cell phone charger
- Jumper cables
- Pressure gauges
- Our business card
- First aid kit
- Flash light
- Multi-tool set
- Weather radio
- Flares or reflective triangle
- Extra blanket
- Water
- Whistle

Stay Safe!

- Most accidents happen near home
- Baby on board often means 'distracted driver on board'
- Adults text and drive more often than teens
- Bigger vehicles aren't always safer

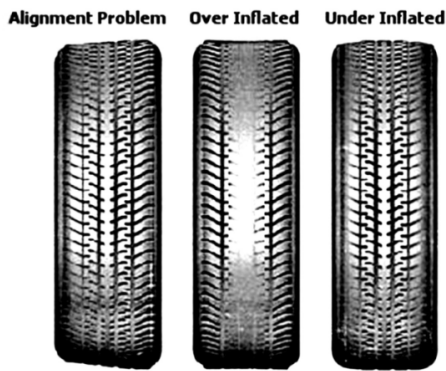
HOW TO CHECK YOUR TIRES FOR WEAR

Extending the life of your tires



There are many reasons wear and tear occurs on tires. If you stick with us, you'll only have the daily wear and tear that affects your tires and nothing more; however over & under inflation and poor alignment can cause real havoc!

Having **properly inflated** tires is crucial to your safety and the tire's comfort, durability and performance. If a vehicle's tires are **underinflated** by only 6 psi it could lead to tire failure. Additionally, the tire's tread life could be reduced by as much as 25%. An **overinflated tire** is rigid and inflexible and the size of its impression with the road is reduced. Higher inflated tires cannot handle road irregularities well, causing them to ride harsher!



If your tires are **misaligned**, you will notice significant uneven wear and tear. With tires on a properly aligned vehicle, you will notice normal break down of the tires. On a car whose tires are not properly aligned, the wear on the tires will be asymmetrical – meaning one tire may show significant more damage than the others.

Want to see for yourself? Take the Penny Test!

The penny test is one of the oldest tire ‘tricks’ in the book when it comes to determining tire tread wear. What we like about the test is that it’s simple & anyone can conduct it! Did we mention that it is fun? We encourage you to not only conduct the test but to teach a friend or family member the test too. Informed drivers are the best drivers to have on the road!

There are many reasons why you should conduct the test:

- To determine the tread depth of the tire
- You are concerned about your safety. If the tire is bald, then it will not grip the road very well
- You are driving in various weather conditions. In wet weather conditions, you are more prone to hydroplaning with bald tires

Conducting the test:

- Take a penny and place it upside down in the tread groove
- If you see all of Lincoln’s head then it is time for new tires
- If the penny is at least as deep as Lincoln’s forehead then you have good tire tread



GOOD TREAD



BAD TREAD



**Need Help? Want to learn a little More?
Contact Us!**

**VISIT US ONLINE
www.mandmautocolumbia.com**

