

MV AutoWorks Vehicle Service Info Packet

The Five Most Important Services For Your Car

How to Lower Your Repair Costs and Increase Vehicle Longevity Through Preventive Maintenance

- I) Oil Service – Every 3,000 Miles
 - A) Petroleum Based Oil – Every 3,000 Miles
 - B) Synthetic Oil – Every 5,000 Miles ¹

¹ If you use Synthetic Oil, once every 60,000 miles, your oil should be changed with Petroleum Based Oil to keep your valve guide seals “pliant” and “flexible” to ensure they seal properly.

- II) Brake Fluid Flush – Every Two Years
 - A) Read The MV AutoWorks Hand Out in the MVAW Info Packet and See The Brake Fluid Flush Display.
- III) Automatic Transmission Service – Every 15,000 Miles
 - A) Read The MV AutoWorks Hand Out in the MVAW info Packet
- IV) Brake Inspection – Every 30,000 Miles
 - A) Read The MV AutoWorks Hand Out in the MVAW Info Packet
- V) Timing Belt Service – Every 60,000 Miles
 - A) Read The MV AutoWorks Hand Out in the MVAW Info Packet and See The Timing Belt Display



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Flushing Your Brake Fluid & Why It is Important

- 1) What is Brake Fluid? It is the fluid that pressurizes your entire brake system. When you pump the pedal, you are pumping a piston in the MASTER CYLINDER and by doing this you are creating hydraulic pressure.**
- 2) Why is Flushing the Brake Fluid So Important? Brake Fluid picks up moisture and becomes contaminated and in a moisture rich environment such as Martha's Vineyard, it accelerates the contamination process making brake fluid flushing ESSENTIAL. When the Brake Fluid becomes contaminated it rusts your brake lines internally, creating a silt-like residue that accumulates in the base of the MASTER CYLINDER RESERVOIR.**
- 3) This SILT-LIKE RESIDUE (See our display) is then pumped through your entire brake system. The Master Cylinder / Brake Lines / Proportioning Valves / Brake Calipers / Wheel Cylinders / & ABS PUMPS. Every one of these Brake Components maintains hydraulic pressure by RUBBER SEALS similar to common sink washers.**
- 4) The SILT-LIKE RESIDUE acts like SANDPAPER, TEARING UP AND SEVERELY DAMAGING ALL THE SEALS IN THE BRAKE SYSTEM. THE SUM TOTAL OF BRAKE COMPONENT REPLACEMENT IS IN THE THOUSANDS OF DOLLARS. THIS IS WHY EVERY VEHICLE MANUFACTURER Recommends Flushing at TWO-YEAR INTERVALS.**

FAQs of Brake Fluid Replacement

- a) Will I notice any difference after the procedure? NO. It is similar to an OIL SERVICE and is done to PROTECT SEVERAL THOUSAND DOLLARS WORTH OF BRAKE COMPONENTS.**
- b) How can I tell if my Brake Fluid is contaminated? By the Color. Brake Fluid is to be Crystal Clear and in most applications it is similar in color to Apple Juice – ANY CLOUDING or DARKENING = CONTAMINATION.**
- c) Is this procedure Expensive? NO. IT IS NOT AND WE WILL GIVE YOU A EXACT ESTIMATE. This procedure ONLY HAS TO BE DONE EVERY TWO YEARS.**
- d) How is the procedure done? First, the fluid and silt-like residue in the Reservoir is evacuated from the top so as not to push it through the brake system. Second, new fluid is placed in the reservoir then pumped through the entire brake system. Third, when the fluid comes out crystal clear from the rear right wheel cylinder / brake caliper the procedure is complete.**
- e) I have a hybrid car; does this procedure apply to my vehicle? YES. Today's Hybrids use the brake system to generate electricity, making the procedure even more critical.**



Servicing Your Automatic Transmission

- 1) **What is an Automatic Transmission Service? It is the replacement of the Automatic Transmission Fluid (ATF) and Transmission Filter.**
- 2) **Your Automatic Transmission operates by a series of bands sliding over and grabbing the transmission drive gears. The ATF acts like engine oil to lubricate the bands and transmission gears.**
- 3) **In the base of the Transmission Pan are two components. 1) A Transmission Filter 2) And in most cases a Magnet. The Filter performs the same function as an engine oil filter. The Magnet is there to “catch” metal shavings that are created by the bands sliding over the Transmission drive gears.**
- 4) **How does MV AutoWorks Perform an Automatic Transmission Service? First we EVACUATE the Transmission Fluid, simply draining the Transmission Fluid leaves a significant amount of dirty ATF in the Torque Converter. Then The Transmission Pan is removed and The ATF Filter is replaced. The Transmission Pan is then washed in a parts cleaner and the metal shavings are scrubbed from the catch magnet. When the Transmission Pan is reinstalled a new Transmission Pan Gasket is also installed.**

FAQs Of Automatic Transmission Services

- a) **How often does my Automatic Transmission need to be serviced? At MV AutoWorks we recommend every 15,000 miles.**
- b) **My Transmission “bumps” or “jolts” when I put it in drive, will servicing the Transmission cure this? It depends if there is Transmission Damage which can be caused from lack of servicing. If caught early enough servicing can eliminate this.**
- c) **My Transmission “slips” when I accelerate will servicing the Transmission cure this? Again this depends on the extent of any Transmission damage. Old ATF and Low ATF levels can cause slipping.**
- d) **How can I tell if my ATF level is low? In Most Cases After the engine is up to full operating temperature (ATF fluid expands as it warms) check the dipstick as you would check the engine oil. Always Refer to your Owner’s Manual for exact instructions.**

An MV AutoWorks Tip for AUTOMATIC TRANSMISSION CARE:

ALWAYS LET THE CAR WARM UP for a FEW MINUTES to ensure the ATF has “expanded” and is LUBRICATING the TRANSMISSION PROPERLY!

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The MV AutoWorks Brake Inspection

- 1) **What is “The MV AutoWorks” Brake Inspection?** The MV AutoWorks Brake inspection is a Comprehensive Inspection of all the Brake Components of your Vehicle.
- 2) **What Components are Inspected?** The Master Cylinder & Reservoir / The Brake Lines, Both Metal & Rubber / Front Brake Calipers and Rotors / Brake Pads / Proportioning Valves and Unions for Brake Lines / The ABS Pump / Rear Brake Calipers or Wheel Cylinders / Rear Brake Pads or Brake Shoes / The Parking Brake Components – Shoes / Cables.
- 3) **Why is a Brake Inspection Needed? THREE REASONS**
 - A) **Generation of an Estimate.** At MV AutoWorks when we give you an Estimate, it is a Complete and Comprehensive Estimate. Example 1: Brake Lines – when replacing rusty brake line(s) the fitting before or after the line being replaced can be rusted too. The leaking line being replaced that is to be attached to a rusted fitting has to be replaced as well. Example 2: Brake Pads – When installing brakes pads, if pad thickness is different, this is indicative of a faulty brake caliper that is not releasing properly and will severely decrease new pad life. Example 3: Rear Wheel Cylinders – If leaking is occurring as evidenced by “staining”, the Brake System cannot be “bled out” and purged of air bubbles in the system when replacing other Brake Components.
 - B) **Timely Completion Of Work For Customer Convenience.** When MV AutoWorks schedules and begins work, it is PARAMOUNT THAT ALL PARTS NEEDED FOR REPAIR BE ON HAND. With all the Different Manufacturers and Models today, including the Hybrids Models, it is impossible to stock All Necessary Brake Parts and Island Isolation equates to any parts that are not on hand at the time of repair, and are at Best Another Day Away.
 - C) **Preventive Maintenance.** By doing a Brake Inspection every 30,000 miles this enables MV AutoWorks to identify and replace faulty brake parts that will damage other related brake components thus lowering repair costs for MV AutoWorks customers.

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Timing Belt And Related Components Replacement

- 1) What is a Timing Belt and what are the related components? A Timing Belt is a **TOOTHED RUBBER BELT** that connects the Camshaft Pulley Gear, Water Pump Drive Gear and Crankshaft Drive Gear. It keeps the engine in “Time” it also prevents Collision between the Cylinder Head Intake & Exhaust Valves and the Engine Pistons. The Related Components are the Timing Belt Tensioner, which keeps tension on the belt and the Water Pump and Timing Belt Drive Roller Pulley(s) (See our display).
- 2) Why is Timing Belt Replacement **ABSOLUTELY CRITICAL**? As mentioned above this belt keeps the engine in “Time” and prevents collision between the Valves and Pistons. If the Timing Belt or Timing Belt Teeth shear off of the Belt, it will result in a **SEVERAL THOUSAND DOLLAR REPAIR**. This repair will take several weeks to complete, due to the cylinder head having to go **OFF-ISLAND** to a machine shop.
- 3) How does MV AutoWorks do a Timing Belt Service?
 - A) At MV AutoWorks **WE REPLACE EVERY MOVING PART** involved with the Timing Belt. This is why, the above mentioned Timing Belt Components, The Water Pump Drive Gear / Timing Belt Tensioner / Timing Belt Drive Roller Pulley(s) all have the same the same “Life Expectancy” about 60,000 miles. If any of these components fail the Timing Belt will “jump” and result in Valve and Piston **COLLISION** creating **SEVERE ENGINE DAMAGE**.
 - B) At MV AutoWorks while we have the Timing Belt off we also replace, when practicable the camshaft and crankshaft drive gear seals (See our display). We do this because if these seals leak oil a few thousand miles after the Timing Belt Service is completed 1) The leaking oil will damage the Timing Belt 2) All the labor for the Timing Belt Service will have to replicated but if seal replacement is done at the time of the Timing Belt Service hopefully we won’t have to “go in there again” for the next 60,000 miles.

FAQs of Timing Belt Replacement

- a) My Dealership says they recommend, “Only replacing the Timing Belt and **INSPECTING** Timing Belt Components”. This may be true but at MV AutoWorks the replacement cost of all components is **SMALL** when compared to the potential damage of **SEVERAL THOUSAND DOLLARS**. **WE DON’T RECOMMEND YOU** take the **RISK** of Timing Belt **FAILURE**.
- b) My Owners manual says to replace the Timing Belt at other mileage criteria i.e. 90,000 miles etc. At MV AutoWorks **WE DISAGREE**. All Timing Belts are made of rubber and the related parts, are usually made by the same manufacturer. Replacement at 60,000 miles is the **HIGHEST PERCENTAGE** option for preventing **SEVERE ENGINE DAMAGE**.

MV AutoWorks Mission Statement

- * To provide the highest quality auto repair to our customers.
- * To provide the most convenient and the most comprehensive auto repair at the best value to our customers.
- * To inform, recommend and provide your vehicle the manufacturer's scheduled services that will increase the life of your automobile.
- * To provide preventive maintenance that will decrease repair costs and prevent unexpected breakdowns, which helps keep your car on the road.
- * The most important aspect of our business is your Trust.
- * MV AutoWorks believes that:

THERE ARE NO UNIMPORTANT QUESTIONS PLEASE FEEL FREE TO ASK

It is the goal of MV AutoWorks to have 100% customer satisfaction, in regards to quality, friendliness, time to completion and to constantly envision new ways to excel and exceed the expectations of our clients.

WE BELIEVE IN THE THREE Cs

CUSTOMER

CHARACTER

COMMUNITY



"Customers First"

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Angel Luis Figueroa – Owner MV AutoWorks