

LETS KEEP OUR MODEL "A" HAPPY!

BATTERY MAINTENANCE

THE HEART OF ANY AUTOMOBILE ELECTRICAL SYSTEM IS THE BATTERY AND GENERATOR, OR ALTERNATOR. TODAY, I WOULD LIKE TO TALK ABOUT THE BATTERY, IT IS OFTEN NEGLECTED.. WHEN WORKING AROUND BATTERIES WE HAVE A FEW SAFETY ITEMS THAT SHOULD BE OBSERVED. BATTERY ACID IS VERY CAUSTIC. DO NOT ALLOW IT TO COME IN CONTACT WITH YOUR SKIN, CLOTHS, OR THE VEHICLE'S UPHOLSTERY. [A SOLUTION OF BAKING SODA AND TAP WATER WILL NUTRALIZE THE ACID] WEAR SAFETY GLASSES AND RUBBER GLOVES, DO NOT CAUSE A SPARK OR USE A FLAME AROUND A LEAD ACID BATTERY, [CAR BATTERY] HYDROGEN GAS, MAY BE PRESENT AND IT CAN EXPLODE. BE REAL CAREFUL USING WRENCHS. IT IS ALWAYS BEST TO DISCONNECT THE GROUND CABLE FIRST, SO YOU DON'T ACCIDENTLY SHORT THE HOT SIDE TO GROUND WITH YOUR WRENCH.

THAT SAID, WE ARE READY TO GO TO WORK. THE FIRST THING WE SHOULD DO IS LOAD TEST THE BATTERY. TO DO THIS TEST THE BATTERY MUST BE FULLY CHARGED. IF IT IS NOT FULLY CHARGED YOU SHOULD CHARGE IT BEFORE GOING ANY FURTHER. IF YOU HAVE A "BATTERY LOAD TESTER" USE IT AND FOLLOW THE INSTRUCTIONS THAT CAME WITH THE TOOL. IF YOU DON'T HAVE A LOAD TESTER YOU CAN "LOAD TEST" YOUR BATTERY BY USING THE FOLLOWING PROCEDURE: **[DO NOT DO THIS TEST WITH A 6 VOLT STARTER ON A 12 VOLT BATTERY]** ATTACH AN ANALOG VOLT METER TO YOUR BATTERY. READ THE VOLTAGE. IT SHOULD READ BETWEEN 6&7 VOLTS FOR A 6 VOLT SYSTEM AND BETWEEN 12&14 VOLTS FOR A 12 VOLT SYSTEM. WITH THE IGNITION OFF AND THE TRANSMISSION IN NEUTRAL, CRANK THE ENGINE FOR 10 SECONDS USING THE VEHICLE STARTER WHILE OBSERVING THE VOLT METER. THE VOLTAGE FOR A 6 VOLT SYSTEM SHOULD READ AT LEAST 5 VOLTS THE ENTIRE TIME THE STARTER IS TURNING THE ENGINE OVER, FOR A 6 VOLT SYSTEM AND AT LEAST 10 VOLTS FOR A 12 VOLT SYSTEM. IF YOUR BATTERY PASSED THIS TEST WE ARE READY TO CLEAN THE TERMINALS. REMOVE THE BATTERY CABLES, YOU CAN CLEAN THE TERMINALS WITH BAKING SODA AND WATER USING A STIFF BRUSH. [AGAIN BE SURE TO WEAR SAFETY GLASSES AND RUBBER GLOVES, BATTERY ACID IS VERY CAUSTIC SO DON,T GET IT ON YOUR SKIN OR CLOTHES] AND DO NOT ALLOW THE WATER/SODA SOLUTION TO ENTER THE BATTERY CELLS. AFTER THE CABLES ARE CLEAN PUT SOME TYPE OF CORROSION INHIBITER ON THE TERMINALS. THERE IS A GOOD SELECTION AT MOST AUTOPARTS STORE AND THEY ALL SEEM TO WORK ABOUT THE SAME, OR IF YOU LIKE, YOU CAN USE PLAIN PETROLIUM JELLY {VASOLINE} IT WORKS AS WELL AS THE PRODUCTS THAT ARE AVAILABLE AT THE AUTOPARTS. REATTACH AND TIGHTEN THE CABLES. BE SURE YOUR BATTERY IS NOT LEFT IN A DISCHARGED STATE [DEAD BATTERY] AS THIS WILL CAUSE THE PLATES TO BECOME SULFATED AND THAT WILL GREATLY REDUCE THE BATTERIES ABILITY TO HOLD A CHARGE AND SUPPLY THE CURRENT NECESSARY TO START THE ENGINE. WHEN YOUR VEHICLE IS NOT GOING TO BE DRIVEN FOR A FEW WEEKS, IT IS A GOOD IDEA TO DISCONNECT THE BATTERY, THIS IS ESPCIALLY TRUE IF YOU HAVE AN ALTERNATOR INSTEAD OF A GENERATOR, [THERE IS A SMALL

'REVERSE CURRENT' DRAIN THROUGH THE ALTERNATOR DIODES] THIS IS REAL EASY IF YOU HAVE A BATTERY CUT-OFF SWITCH. IF NOT, YOU SHOULD DISCONNECT THE GROUND CABLE. WHILE WE ARE ON THE SUBJECT OF CUT OFF SWITCHES, I HAVE BEEN ASKED IF THE SWITCH SHOULD BE ON THE "HOT" OR THE "GROUND" SIDE. IN THEORY IT REALLY DOESN'T MAKE ANY DIFFERENCE, HOWEVER I PREFER THE GROUND SIDE ON A MODEL "A" PARTLY BECAUSE OF THE LOCATION OF THE BATTERY AND ALSO YOU DON'T HAVE A "HOT LEAD" ON THE SWITCH THAT COULD BE SHORTED TO GROUND. AS I SAID, IT WORKS AS WELL ON EITHER SIDE, AND WHICH EVER ONE MAKES THE BEST INSTALLATION WITH THE LEAST POSSIBILITY OF FUTURE TROUBLES IS THE WAY TO GO. NEXT, BE SURE YOUR BATTERY HAS ENOUGH FLUID. IF IT IS LOW YOU SHOULD ADD ONLY DISTILLED WATER [AVAILABLE AT ANY GROCERY STORE OR DRUG STORE] TO BRING IT UP TO THE PROPER LEVEL. MOST BATTERIES HAVE AN INTERNAL BAFFLE TO INDICATE THE PROPER LEVEL. DON'T OVER FILL AS THIS CAN CAUSE THE BATTERY TO OVERFLOW WHEN IT IS CHARGED. WHEN WATER IS ADDED TO A BATTERY, THE BATTERY SHOULD BE CHARGED TO MIX THE WATER WITH THE ACID. [IF YOU DRIVE THE VEHICLE THE GENERATOR WILL DO THE JOB FOR YOU] JUST BE SURE YOU DON'T ADD WATER AND THEN LET THE VEHICLE SET FOR A WEEK OR TWO. WHEN A BATTERY NEEDS CHARGING IT SHOULD BE CHARGED AT 10% OF ITS RATED CAPACITY. IN OTHER WORDS IF YOU HAVE A 70 AMP HOUR BATTERY, IDEALLY YOU SHOULD CHARGE IT AT A RATE OF 7 AMPS. ALTHOUGH MOST BATTERIES WILL STAND A LOT OF ABUSE, A SLOW EVEN CHARGE IS MUCH EASIER ON YOUR BATTERY AND IT WILL SERVE YOU LONGER. THE BATTERY ON THE MODEL "A" IS MOUNTED UNDER THE FLOOR BOARD AND OUT OF SIGHT. BE SURE THE MOUNTING BRACKETS ARE IN GOOD ORDER AND WILL HOLD THE BATTERY IN PLACE. THE BATTERY IS OFTEN FORGOTTEN UNTIL IT SCREAMS FOR HELP, USUALLY BY NOT STARTING THE VEHICLE!



PROPERLY CARED FOR, YOUR BATTERY SHOULD LAST ABOUT 5 YEARS, GIVE OR TAKE A LITTLE. THIS MAINTENANCE CAN BE DONE IN A LITTLE OVER AN HOUR, AND SHOULD BE DONE ANNUALLY. IF YOU HAVE NEVER DONE THIS YOURSELF AND YOU WOULD LIKE TO GIVE IT A TRY, GIVE ME A CALL. YOU PUT ON THE COFFEE POT, I'LL GUIDE YOU, DRINK COFFEE AND WATCH YOU WORK

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YOUR TECH ADVISER

CLAUDE SIPE.