

## Technical Notes

### The Model A Ford 12 Volt Conversion!

By Ken Miller

This article is to pass on information about how I converted my 1931 Victoria to a 12 volt negative ground electric system. There have been a multitude of articles written about the subject, but it seems that everyone forgets about the horn.

**The Battery!** Any good 12 volt battery will do as long as it will fit your battery box and hold down. I selected a 72 month, 675 cranking amp, universal battery.

**The Generator!** I installed a GM 63 amp alternator with an internal self exciting voltage regulator. The hook up is one wire, the same as the existing Model A generator. You will have to make two small brackets to mount the alternator, or you can use two shackle bars and drill out for the proper size bolts. An alternator pulley can be purchased from your friendly model A parts supplier.

**The Starter!** No modifications are necessary to the starter. Just touch the pedal and enjoy the really fast starts.

**The Ammeter!** I changed the standard 20 amp ammeter to a 30 amp ammeter as an alternator will peg out the standard meter. You must reverse the leads on the ammeter due to the change in polarity of the battery. Your neighborhood Model A parts supplier carries the 30 amp ammeter.

**The Headlights!** Since I had installed an alternator I opted to go all the way for headlights and converted to Halogen bulbs. The conversion is relatively easy, you can purchase a kit to modify your existing reflectors, or you can purchase new reflectors with the Halogen sockets installed. You must install an alternator to successfully operate Halogen bulbs. Six volt Halogen bulb kits are also available. What a pleasure to be able to really see while driving at night.

**The Ignition!** You could install a 12 volt coil and a resistor to reduce the voltage to the points. I elected to install a PerTronix IGNITOR electronic ignition system. This is an extremely easy system to install as it fits entirely inside the distributor; no outside boxes are required. Kits are available for the standard Model A or B, early V8, and Mallory distributors. Both 6 volt and 12 volt kits are available. Kits are furnished with a new coil as the correct coil resistance is very important for proper operation. Kits are distributed by: Resmund Ignitions, Inc. - PO Box 857 - Lemon Grove CA 91946-0857 /- 619-460-3620

**The Horn!** Getting the horn to work properly was the most perplexing part of the conversion. I tried several "voltage reducers" from local parts stores, but none could handle the current demands of the Model A horn. I finally purchased a 0 to 2 Ohm variable power resistor with a 100 Watt power rating from an electronics supply house. I selected a variable resistor in order to optimize the voltage to the horn. The resistor I purchased was an Ohmite D100K2R0 with two type 12 brackets (Newark stock numbers 13F671 and 13F099) from Newark Electronics 1-800-463-9275.

**The Light Bulbs!** The following bulbs can be used with a 12 volt system: Cowl, Tail, and Dish lights - #89,6cp

Dome light - #67/97, 4cp

Stop lights - #1156/10, 32cp.

**The Turn Signals!** If you have Signal-Stat turn signals it will be necessary to change the flasher to a Signal-Stat #180 and pilot bulb to a #1445.

Editor's note: Ken Miller is from Greenville Tennessee