THE MODEL T FORD

ITS REPAIR, SERVICE, & RESTORATION

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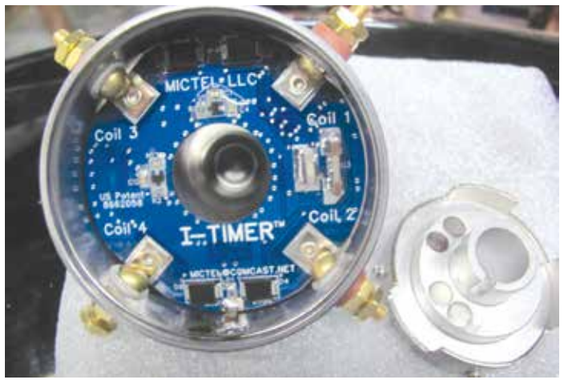
My Experience with the "Ideal Timer"

At the October 2017 Hershey, Pennsylvania, AACA antique auto swap meet, I was able to purchase beta test unit #5 of the new electronic Model T timer to be offered by Mictel LLC, the makers of the rather unique "E-Timer". This new version is called the "Ideal Timer", hence the moniker "I-Timer".



I-Timer case and aluminum rotor

My interest in this new development is due to how the I-Timer functions with the Ford flywheel magneto and vibrator coils; it is a simple 'drop-in' replacement for any mechanical Ford timer or commutator. I prefer to run my Ford with the factory ignition system. Using a specially-designed timer where there is no mechanical contact of parts (no wear) and no lubrication or other attention needed is ideal.

My 1927 Model T Touring, mostly stock, is equipped with a 6V electric starter and generator. The engine is bored .060" with a Prus aluminum high compression head, Stipe 280 cam, Holley NH carburetor, Ruckstell rear end, and standard 3:63 rear gearing. The engine has a very strong functioning magneto, the vibrator coils were rebuilt by a coil rework specialist, and it has a rebuilt Anderson timer. My Model T has always run very well on tours. It occasionally "spits" on hard pulls up steep hills, but not anything I haven't experienced with other T's.

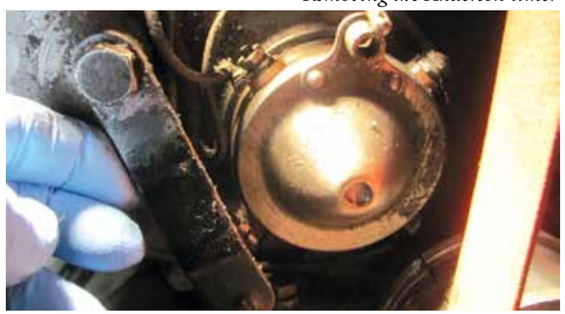
I had just completed the tour in Montana and drove the T on the Going-to-the-Sun Road in Glacier National Park with no issues other than tiny spits at times. I've always enjoyed starting the car on battery, adjusting the throttle to a good idle, then advancing the spark lever. Then, when switching from BAT to MAG, I like hearing that magic "hum" and the smooth, upbeat RPM's from the coils when they receive higher voltage AC current from the magneto. I just like running the T with Ford's and Huff's flywheel magneto!

Historically, I have run Anderson flapper timers. For my test of the new I-Timer, I prepared the T by removing the existing coils (which were working well) and replaced them with fresh, rebuilt coils prepared on the electronic ECCT unit, also marketed by Mictel LLC. These coils came from the same rework specialist as the coils I removed. Next, I replaced the Champion 25 spark plugs with a new set of Champion 25's, gapped to the same .025" as always. I always replace good coils and good spark plugs with fresh ones when replacing a timer. I usually do this after every 5,000 miles on this car, as it's our main tour vehicle. I haven't experienced improved performance by performing these ignition replacements, just the same consistent running my 1927 always gives.

Removing the Current Timer

The first step was to remove my Anderson flapper timer, which had considerable wear after three years of touring. We had likely driven over 5,000 miles or so since installation. The flapper rotor was worn, which is what I always expect after a few years, even with the high pressure lube I use on the flapper surface.

Removing the Anderson timer

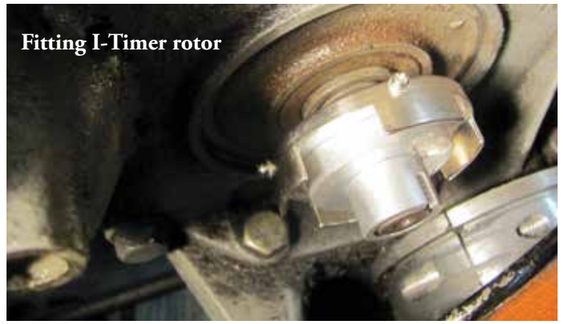


Anderson timer flapper showed considerable wear

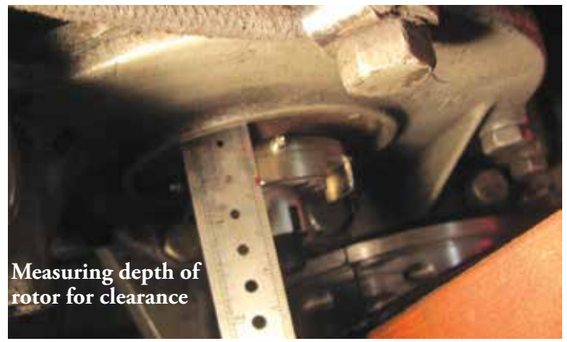
Installing the I-Timer

When installing the I-Timer, be sure to:

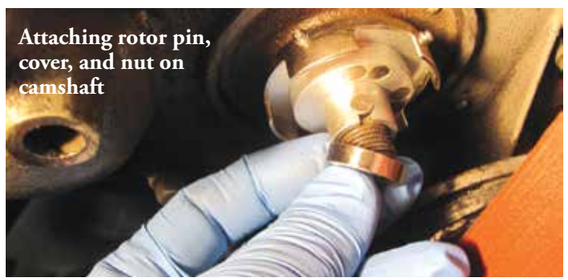
- Measure the aluminum rotor with its tiny magnets on the face to be sure they do not hit or strike the internal components of the timer case
- Use a scale to be sure there is no contact
- Fit the timer case loosely; turn to feel sure that all is clear



Fitting I-Timer rotor



Measuring depth of rotor for clearance



Attaching rotor pin, cover, and nut on camshaft

Placing I-Timer case

Ensure Safe Cranking

This step should be followed whenever the timer is replaced, regardless of the type of timer. The key is to be sure you have cylinder #1 at top dead center (TDC). For me, it's easy to see TDC when the crank pin is horizontal. You have assured TDC on compression when you can feel air coming out of the #1 plug hole with the spark plug removed. You will then want to crank through TDC to go just past - approximately 15° past. This is where you want the crankshaft and camshaft to remain as you rotate to adjust the I-Timer case for the correct timer pull rod distance when the spark lever is fully retarded (all the way up) to fire spark plug #1. You can check that 15° past TDC, as the crank pin in the pulley will now be at approximately 3:30 – 9:30, as hands on a clock face.

Horizontal crank pulley pin at top dead center

I also prefer double checking TDC by using TW Timers' Accurate Indicator* tool. After the tool is placed in cylinder #l, it raises, then drops, with the piston to TDC on compression. It has a marking to show when 15° past TDC as you continue cranking.

The Accurate Timing Indicator helps to ensure timing is set correctly.

Indicator illuminates at correct timer case setting

Crank pulley in at 15° past TDC; 3:30-9:30 as hands on clock face

The Anderson timer was timed with the Accurate Timing Indicator and ran well. When I re-timed for the I-Timer, I had to bend the timer rod just a tad, about 1/4" longer, to have the I-Timer spot on the indicator lamp (supplied with the Accurate Timing Indicator, photo above) to illuminate. The lamp will light as you rotate the timer case. As the timer aligns with the #1 plug contact, that spot will be where the timer contact just closes at 15° past. All timer cases are different; rarely can you change between brands and styles of timer cases and not have to re-adjust the timer rod length.

Starting the Engine after I-Timer Installation

I retarded the spark lever (Always remember to do that! The starter, or you, could be injured if you don't!), switched to BAT, hit the starter switch, and the T fired up immediately. I adjusted the throttle a bit more, advanced the spark lever, then flipped the key to MAG. *Vroooomm!* The engine RPM's picked up and the engine smoothed, just like it always does when AC juice flows from the magneto to the vibrator coils. The I-Timer does need power for its internal circuit board, but no additional wires are needed. The I-Timer takes the low power it uses from the battery on start-up, then from the magneto when running.

Tour Results and Observations from Testing

As part of beta testing for the road test of the new I-Timer, we took the Ford to a five-day tour in hilly, middle-Tennessee. The tour routes took us through approximately 450 miles of hills and dales. About a quarter of the hill climbs were in Ruckstell and the T pulled them well. I pulled many of the hills in high, which might not have happened previously with the Anderson timer.

The I-Timer after installation. Looks like a stock timer!

My critique is only subjective. I did not perform acceleration testing, timed runs, or other objective test methods. The following are just 'seat of the pants' observations:

The engine starts as well as before. I always start on BAT, then adjust the spark lever to get a good, quick idle, and also by opening the throttle some.

I always enjoy the increased "hum" and RPM's when I switch to MAG, as the AC from the magneto fires the coils so much better. With the I-Timer, the starting is the same. When the switch is turned to MAG, the engine revs up and hums better too, just like with the Anderson timer. I like that the I-Timer works on MAG.

As for performance, the engine is smoother at all speeds. The real improvement to me is hearing the exhaust note. Before, with the mechanical Anderson timer, the note was raspy and sharp as you'd find the sweet spot of the spark advance for the road speed. Before, when climbing hills in Ruckstell at about half throttle, the T would sometimes (but rarely) spit, but with the I-Timer, I never had even one spit or miss. I have always had some of that with the mechanical timer, but the I-Timer, to me, made the engine perform flawlessly.

As for gas mileage, the I-Timer might have improved the mileage. I normally get about 16 mpg and I averaged between 16-18 mpg with the I-Timer. Since there were a lot of hills, this might indicate an improvement.

Replacing test coils with previously used coils

Replacing new spark plugs with former plugs

I performed a final comparison test after returning home from the tour. I replaced the new spark plugs and new coils that I used on the test run with the good plugs and coils I removed prior to the I-Timer installation. I'm currently experiencing identical improved performance with those same plugs and coils that used to be energized by the mechanical Anderson timer.

With the I-Timer, there is smooth running at low speeds as you speed up and adjust the spark lever, and the exhaust note is a constant sound - like a steady purr. That is due, I must assume, to the better timing-to-cylinder fire with the I-Timer, as the engine exhaust note is so smooth and constant. I drive a road speed of 34 to 38 mph most of time on the open roads. I noticed, as did my wife, how smooth the exhaust note was - just a constant, smooth mellow tone.

Additional inquiries about the Ideal Timer can be directed to:

Mictel LCC, Kenilworth, NJ
mictel@comcast.net
www.modeltitimer.com

** Accurate Timing Indicator*
TW Timers
www.twcomponents.com

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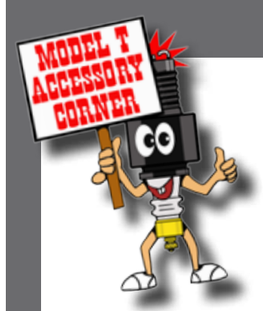


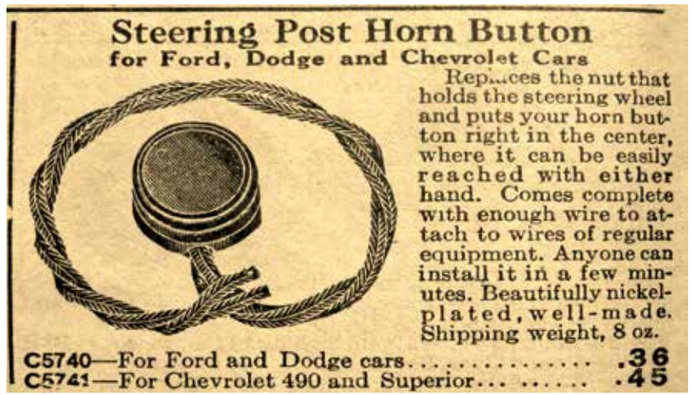
A showcase of aftermarket accessories from the past, often found on the Ford. Many thousands of inventive products were sold to dealers and owners to upgrade, customize, or improve over the factory parts…in most cases not so much!

By Dan Treace
Technical Editor

Steering Wheel Horn Button

This accessory horn button replaces the regular steering wheel nut with a special switch button for easy reach. The horn wires lace under the steering wheel.

Some Canadian Fords came with a factory horn button on the steering post.



Steering Post Horn Button
for Ford, Dodge and Chevrolet Cars

Replaces the nut that holds the steering wheel and puts your horn button right in the center, where it can be easily reached with either hand. Comes complete with enough wire to attach to wires of regular equipment. Anyone can install it in a few minutes. Beautifully nickel-plated, well-made. Shipping weight, 8 oz.

C5740—For Ford and Dodge cars..... .36
C5741—For Chevrolet 490 and Superior..... .45

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