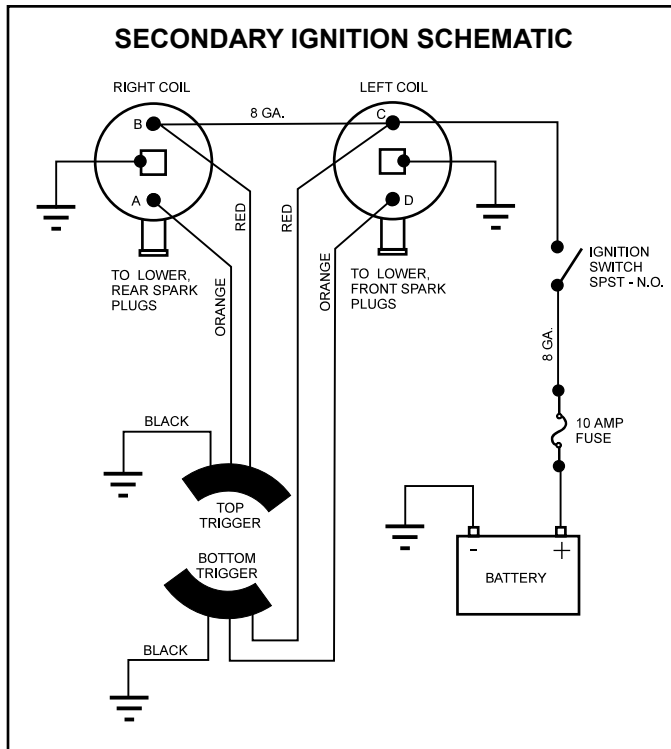
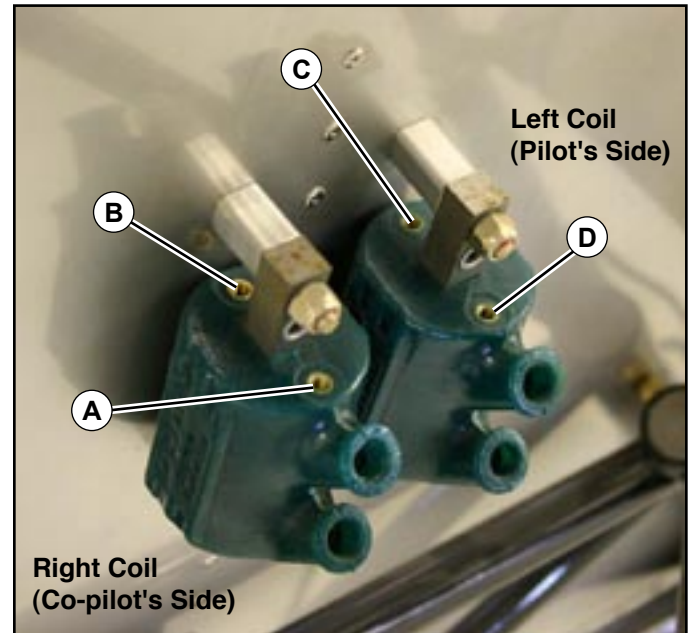


Parts Required

- __ Electrical Terminals (not supplied)
- __ Electrical Wire, 18 ga. (not supplied)



- __ 2. Red wire (+12V). Attach to rear terminal screw of right hand coil (terminal "B" in photo).
- __ 3. Orange wire (Trigger). Attach to the front terminal (terminal "A" in photo) of right hand coil.



The coils are mounted on the firewall as near the fuselage centerline as possible. Note that "Left" and "Right" are as viewed from the pilot's seat.

Top Trigger Wiring

- __ 1. Black wire (ground). Attach to any ground point. The ground wires from both the top trigger and bottom trigger can share the same ground point.



The secondary ignition triggers.

Bottom Trigger Wiring

- __ 1. Black wire (ground). Attach to any ground point. The ground wires from both the top trigger and bottom trigger can share the same ground point.
- __ 2. Red wire (+12V). Attach to the rear terminal screw of left coil (terminal "C" in photo).
- __ 3. Orange wire (Trigger). Attach to the front terminal (terminal "D" in photo) of left coil.

Coil Wiring

- __ 1. Connect an 18 ga. wire between terminals "B" and "C". This is a jumper for the +12V power supply wire.
- __ 2. From the ignition switch, run an 18 ga. wire through a 10 amp fuse and connect the wire to terminal "B" of the right coil.
- __ 3. The coils must be grounded. In a typical installation the coils will be grounded through the hardware which secures them to the firewall. If your installation uses non-conductive materials for the firewall, or for the mounting of the coils, dedicated ground wires will be necessary between the coils and a suitable ground point.

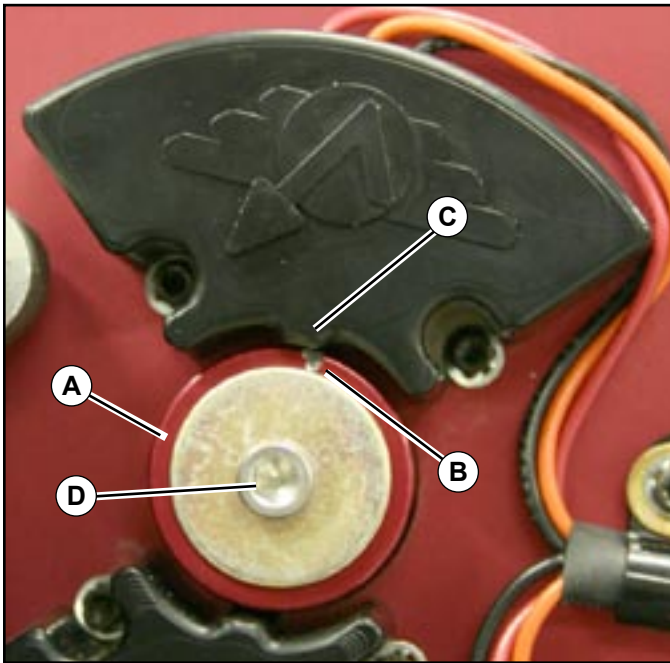
Tools Required

— 5/32" hex wrench

Timing Basics

The electronic (secondary) ignition is timed to match the Magnatron (primary) ignition, which is fixed at 28 degrees BTDC. Accurate timing is accomplished when the two ignition systems are firing as one, which is indicated by little or no difference in engine RPM when switching between ignition systems.

The trigger cap (A) of the secondary ignition system rotates to make timing adjustments. It is locked in position by a socket head cap screw (D). When the magnet in the trigger cap passes by the sensor in the triggers (C), it fires the spark plugs. The location of the magnet in the trigger cap is marked with a line (B).

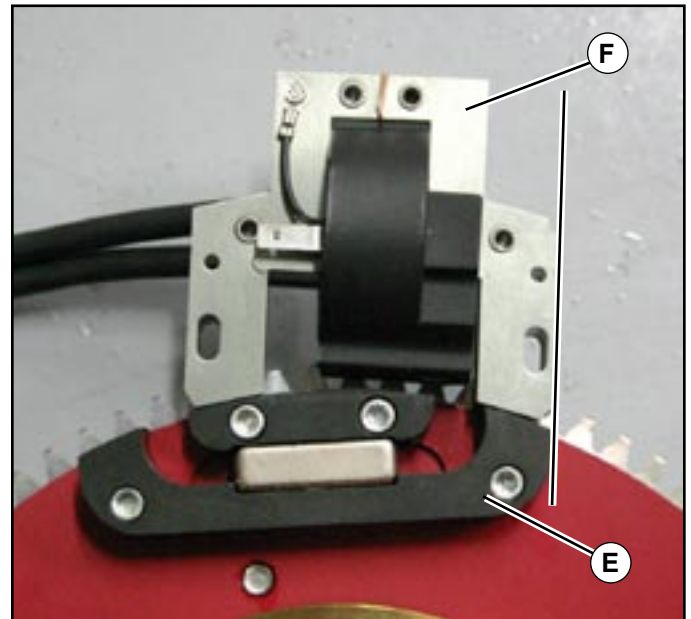


The trigger cap (A) is locked in position by a socket head cap screw (D). A mark (B) on the trigger cap corresponds with the location of the trigger magnet. When this magnet passes by a sensor (C) in the upper and lower triggers, the spark plugs fire.

Timing the Secondary Ignition

Important: The secondary ignition will spark when the ignition is on and the trigger magnet passes by the sensor. This can cause ignition. Avoid serious injury or death by turning off the fuel, ignition switch, and master switch and remaining clear of the propeller while timing the ignition.

Initial timing is achieved by aligning the right edge of the magnet shoe on the flywheel (E, photo below) with the right edge of the top magnatron (F) and then rotating the trigger cap (A) until the mark on the cap (B) is centered under the sensor (C) of the upper trigger. The following steps detail this process.



The black/white line on the right shows how the top magnatron and magnet shoe on the flywheel align prior to setting the secondary ignition timing. For clarity these parts are shown removed from the engine.

- 1. Turn off the aircraft's Master switch, secondary ignition switch and fuel valve.
- 2. Pull the cockpit mixture control to "Idle Cut-off".

(Continued next page)

- ___ 3. Rotate the propeller hub until the single dot stamped in the back of the hub flange (F, below) is approximately 45-degrees left of vertical and the prop bolt holes are in the 1-, 3-, 5-, 7-, 9- and 11-o'clock positions (see bottom photo).



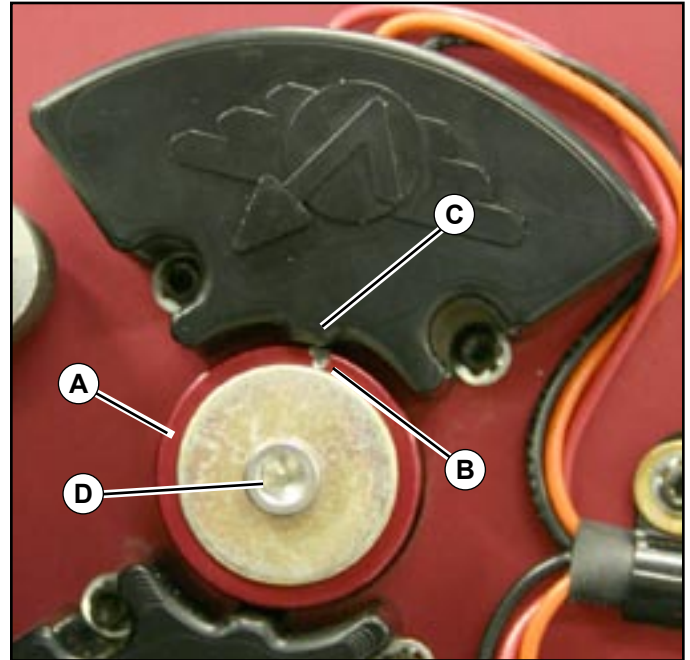
The dot stamped in the back of the prop hub's flange (F) will be in the position shown during initial timing. This view is from behind the engine.



When the flywheel is properly positioned for static timing of the secondary ignition the prop bolt holes will be aligned as shown in this photo, and the stamped dot (F, top photo) will be positioned as shown in the top photo.

- ___ 4. Look down between the accessory plate and the rear flange of the engine case to check the alignment of the top magnatron to magnet shoe on the flywheel. They should line up as shown in the photo on the previous page. If not, slight rotation of the prop hub should bring them into alignment.

- ___ 5. Loosen the socket head cap screw (D) and rotate the magnet cap (A) until the mark on the magnet cap (B) is centered under the sensor (C) of the upper trigger.
- ___ 6. Tighten the socket head cap screw.



When the crankshaft is in the proper position (see steps 1 thru 4), static timing is achieved by loosening the cap screw (D) and rotating the trigger cap (A) until the mark on the cap (B) is centered under the sensor of the upper trigger (C).

Timing Check

Running the engine and performing a mag check will indicate the accuracy of the timing of the secondary ignition. A mag check at 1600 RPM should reveal little or no change in RPM. If a change of 50 RPM or greater is noted, the position of the magnet cap should be adjusted slightly.