



**THE ENSTROM HELICOPTER CORPORATION**  
**TWIN COUNTY AIRPORT, P.O. BOX 490, MENOMINEE, MICHIGAN 49858**

# SERVICE INFORMATION LETTER

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SERVICE INFORMATION LETTER NO. 0105

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Date: November 13, 1980

Subject: Change of Retard Timing on Bendix D-2000/3000 Shower of Sparks Magnetos

Models: F-28C and 280C

All F-28C and 280C helicopters equipped with Bendix D-2000/3000 shower of sparks magnetos should have the retard timing adjusted to top dead center, or slightly after. The purpose of this adjustment is to reduce the possibility of engine kickback on starting.

Instructions for readjusting the retard timing are included in this Service Letter. Magnetos timed per this Service Letter must have the nameplate changed from 10-382605-17 to 10-382605-13 by stamping a 3 over the 7 with a metal punch.

## RETIMING INTERNAL RETARD ON SHOWER OF SPARKS EQUIPPED MAGNETOS

1. Magneto switch OFF
2. Master switch OFF
3. Remove lower spark plugs
4. Remove magneto cover.
5. Connect timing light:
  - a) Connect black lead to any unpainted surface of the magneto
  - b) Connect one lead to retard breaker terminal
6. Rotate engine crankshaft in direction of normal rotation to bring No. 1 cylinder on compression stroke.
7. Bump engine forward to align T.D.C. mark on starter ring gear support assembly with index mark on starter housing.
8. Loosen retard cam securing screw and turn the retard cam clockwise to open the points at top dead center or slightly after (+2°, -0).
9. Retorque cam securing screw to 16 to 20 in. lbs.
10. Check retard timing by backing engine off T.D.C. 20° to 30° and bumping it forward again until the timing light goes on indicating the points have opened. T.D.C. mark and index mark should be aligned.
11. Readjust cam (step 6 thru 10) as necessary to achieve retard timing to limits specified.
12. Remove timing light leads
13. Install magneto cover and "P" leads
14. Insure retard contact spring is in position by checking continuity (10 ohms or less) from the LR terminal of the starting vibrator to the nearest paint free system ground.