## Title
CYLINDER HEAD TEMPERATURE GAGE CALIBRATION UNIT

### MODELS AFFECTED
ALL

### PARTS LIST:

<table>
<thead>
<tr>
<th>QUANTITY</th>
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<td>10182-058-1</td>
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### SERIALS AFFECTED
ALL

### NOMENCLATURE
- Unit - Cyl. Hd. Temp.
- Gage Calibration
- Installation Instructions

1 of 4
Figure 1. Cylinder Head Temperature Calibration Unit.
1. OPERATING INSTRUCTIONS.
      
      (1) Remove cowling and disconnect the C.H.T. gage lead (8) from temperature probe (7), installed in the "hot" cylinder.
      
      (2) Remove the probe and install in receptacle (2) in calibration unit.

      **CAUTION**
      
      Overtightening of probe should be avoided to prevent damage to unit.

      (3) Lay calibration unit on engine close to cylinder from which probe was removed. Loosen C.H.T. wire clamps as required and connect wire (8) to probe (7).
      
      (4) Attach wire (10) to airframe to provide a ground return for meter circuit.
      
      (5) For the most accurate calibration connect an external power source to the aircraft and adjust to 13.5 to 14.0 volts or 27.5 to 28.0 volts as required for the system being checked.

      **NOTE**
      
      The aircraft battery can be used to check gage indication provided the battery is at or near full charge.

      (6) Insert plug (1) into a 100-115 volt power source.
      
      (7) Turn switch (9) "ON". The "READY" light (3) will illuminate when the test unit reaches 460°F±2°F (approximately 30 to 40 minutes).
      
      (8) After "READY" light illuminates, wait five minutes for system to stabilize.
      
      (9) Turn aircraft master switch "ON".

      **NOTE**
      
      All unnecessary aircraft electrical equipment should be off.

      (10) To assure that the gage does not "stick" momentarily, depress button (4). The gage should return to zero.

      **NOTE**
      
      Avoid depressing the button for a long period as this will result in a "cool-down" requiring a longer time for unit to regain test temperature.

      (11) Adjust aircraft gage potentiometer as required to center needle over red line.
      
      (12) Repeat step #10 to check final adjustment.
      
      (13) Disconnect external power source.
      
      (14) Remove probe from unit and reinstall in cylinder. Reconnect C.H.T. wire to probe and replace clamps previously removed.
      
      (15) Replace cowling.

      
      (1) Open cowling and remove C.H.T. probe from receptacle in "hot" cylinder.
      
      (2) Install adapter (6) in receptacle (2). Avoid overtightening.
      
      (3) Insert temperature probe in adapter and lock in place.
(4) Support calibration unit on cowl door to relieve strain on temperature gage wiring.

NOTE

Do not attach wire (10) to airframe to provide a ground return for meter circuit. Grounding is provided by C. H. T. system in aircraft.

(5) For the most accurate calibration, connect an external power source to the aircraft and adjust to 27.5 to 28.0 volts.

NOTE

The aircraft battery can be used to check gage indications provided the battery is at or near full charge.

(6) Insert plug (1) into a 100-115 volt power source.

(7) Turn switch (9) "ON." The "READY" light (3) will illuminate when the test unit reaches 460°±2° (approximately 30 to 40 minutes).

(8) After "READY" light (3) illuminates, wait five minutes for system to stabilize.

(9) Turn aircraft master switch "ON."

NOTES

1. All unnecessary aircraft electrical equipment should be off.

2. Due to the different ground in the meter circuit, the gage disconnect button (4) can not be used. Turning off the master switch momentarily will provide a similar instrument test.

(10) If gage indication is satisfactory, disconnect external power source.

NOTE

Since C. H. T. gages can not be adjusted, faulty indications can be corrected by replacing the probe or the gage.

(11) Turn off power to the test unit and allow to cool. Remove the probe from the test unit and reinstall in cylinder receptacle.

(12) Close cowling.