

INSIGHT INSTRUMENTS CORPORATION

Heading Gyro

OPERATION MANUAL

DOCUMENT 4000-702 DATE: APRIL 29, 2011 REV. C

PLEASE READ INSTRUCTIONS
COMPLETELY
BEFORE PROCEEDING

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CAUTIONARY NOTICE

Insight Instrument Corp. Heading Gyro is a heading gyro system.

To ensure reliable operation, handle with great care. Shocks may destroy the gyro or reduce its reliability.

WARRANTY

Insight Instrument Corporation Heading Gyro is warranted against defects in materials and workmanship for one year from the date of purchase.

Insight Instruments Corporation will, at its option, repair or replace, without charge, those products that it finds defective.

The installation is warranted by the installing dealer.

Insight Instrument Corporation will not be responsible for repairs required by improper installation, unauthorized maintenance or abuse.

No other warranty is expressed or implied. Insight Instruments Corporation is not liable for consequential damages.

INTRODUCTION TO THE HEADING GYRO SYSTEM

The Insight Heading Gyro system is intended to replace the old DN-101 Lear Jet gyro.

HEADING GYRO OPERATION:

Under normal conditions, the Heading Gyro should be left in slave mode.

After power-up (AC and DC power), the pilot should observe the heading indicator slew to the actual aircraft heading and the heading flag should pull.

The pilot should confirm that both heading indicators agree with the aircraft heading within five degrees. The pilot could compare heading with the standby compass or with known references such as airport compass rose, taxi ways or runway headings.

In the event of a heading discrepancy during flight, the pilot may elect to operate the gyro in FREE mode and correct errors with the L/R switch.

Should the pilot notice a heading flag down during flight, the pilot should act according with the Airplane Flight Manual (please refer to the aircraft checklist for the recommended procedure).

CONTINUING AIRWORTHINESS

The Insight Instruments Corporation Heading Gyro system has very simple care and maintenance requirements.

Insight recommends periodic testing during each scheduled 300-hour maintenance interval. Every 300 hours qualified maintenance personnel should verify that the Heading Gyro operates correctly. Simple tests should be performed such as listening to the gyro spinning to detect adverse noise and touching the actual gyro to detect excessive vibration should be performed. The gyro motor should run smoothly and feel vibration-free.

The inspector should select free mode and observe the heading does not change more than five degrees in ten minutes.

If the Heading Gyro shows precession rates greater than normal or it shows alignment errors greater than five degrees, the gyro should be evaluated by a qualified instrument shop and considered for overhaul. Do not confuse alignment errors caused by magnetic disturbances near the flux gate sensors in the wing tips or tip tanks with gyro faults. Conduct these tests in a magnetically clean area.

For servicing information contact Insight Instrument Corporation maintenance staff for all service issues at 905-871-0733 or techsupport@insightavionics.com.

Please send the Heading Gyro for overhaul to the approved maintenance facility. Maintenance will be accomplished using Maintenance Instructions for Gyro 4000, document number MI-4000.