Honeywell

Business, Regional, &
General Aviation
23500 W. 105th Street
Olathe, KS 66061

Service Memo

SERVICE MEMO NO: 377

SUBJECT: Transportation and Handling of the KI 256 Flight Command Indicator and the KG 258 Horizon Gyro

Since the introduction of the KI 256 and the KG 258, the need for delicate handling of these instruments has been constantly evident. The history of the repair of these units indicates that they suffer frequent damage due to improper handling, packing, and shipping. Therefore, we must insist that any units returned for any reason be properly packed and shipped in the *original shipping containers*. **Units returned in any other containers will be considered not under warranty, will not be eligible for core exchange credit, and charges will be assessed for repair.**

The gyro is a delicate instrument containing supports and precision bearings that rotate at high speeds. A sharp blow to a spinning gyro will induce oscillations, both vertically and horizontally. The slower the speed of the gyro when the blow occurs, the more severe the oscillations. A gyro at rest can be damaged by a sharp blow, which will cause similar problems. Also, damage to a gyro causes friction that interferes with normal gyroscopic precession.

The following practices MUST BE OBSERVED in order to reduce and/or eliminate damage to the instruments. Failure to observe these practices could void the unit's warranty, make the unit ineligible for core exchange credit, and incur additional repair charges.

1. Store the unit in its original shipping container until it is installed in an aircraft.
2. Keep the unit in its original shipping container for all transportation, including to and from the aircraft.
3. When the unit must be moved without a shipping container (for example, in the repair shop on a cart) place it on a shock-absorbing pad.
4. The gyro should *never* be subjected to more than 10 G's when it is outside of the original package or 25 G's while inside of the original package.
5. *Never* strike a gyro or move it rapidly. This is particularly harmful when it is running up or running down.

6. During installation and/or troubleshooting of the autopilot with the flight director and/or autopilot engaged (command bars in view), **vacuum or air pressure must be applied** to the KI 256. If the flight director and/or autopilot is engaged with command bars in view for longer than 5 minutes *without* vacuum or air pressure to the KI 256, the command bar system **will be damaged**.
7. Any vacuum or air pressure applied to a gyro must be from a clean and filtered source at a pressure not exceeding 4.75 +/-.25 in. Hg. Follow aircraft manufacturers' recommendations for air system filter replacement to ensure that the gyros have the cleanest air possible. If the aircraft's vacuum or air pump fails, check the filter and the lines connected to the gyro for contamination.
8. When power, vacuum, or air pressure is removed from a gyro, **allow a minimum of 15 minutes for the unit to completely run down before it or the aircraft is moved**.
9. At engine start-up, or whenever power, vacuum, or air pressure is applied to a gyro, **allow a minimum of 3 minutes for the unit to reach operating speed before it or the aircraft is moved**.

Follow these practices *at all times*. Whether transporting a unit to stock, to the repair shop, or to the aircraft, or handling the unit in the stockroom, the shop, or the aircraft, these transportation and handling procedures must be adhered to consistently.

Observing these procedures will not only increase gyro life and accuracy, they will also decrease instrument and gyro damage due to negligence, and consequently decrease both the failure rate and the repair costs.