

**PLEASE READ THIS PAGE BEFORE OPEN PLASTIC BAG!**

**FALCON GAUGE GYRO**

**GYRO HANDLING**

To prevent damage to the gyro, it should be transported to and from the aircraft in it's original shipping container. When this procedure is impractical, the gyros should be hand-carried with special care.

Gyros SHOULD NEVER be removed while they are running or spinning down. A gyro normally operates between 20,000 to 24,000 rpm and takes 10 or more minutes to run down. If a gyro is removed while it is running and if it is tilted more than 90 degrees, it will develop a gimbal lock. The gimbal will tumble and start to spin. If gimbal lock occurs while the gyro is turning, the gimbal may spin fast enough to damage the gimbal bearings. Even though a gyro has malfunctioned and is being removed from the aircraft, the gyro with the same respect due a new one. It is easy to think of a gyro that has malfunctioned as one destined for the scrap pile. This is not so. It can probably be fixed. It is therefore very important that proper handling procedures also be employed during removal.

Gyro handling techniques are summarized as follows:

1. Keep the gyro in the original shipping container as long as possible or provide a well-padded, shock-absorbent container for transporting the gyro.
2. Wait at least 10 minutes after removing electrical or vacuum power from the aircraft and/or gyro before removing gyro. DO NOT remove a gyro while it is running.
3. Lift gyro from the base and carry in an upright position.
4. Handle the gyro with care at all times and avoid subjecting it to shock or vibration.

**Shipping Guidelines**

- A. Keep original shipping containers that the gyro instrument is received in for future reshipment. Gyro instruments that have been returned, have arrived improperly packaged, and were found to have extensive bearing damage. Proper packaging helps prevent this.
- B. Cage the gyro instrument, if possible prior to packaging.

FALCON GAUGE  
Directional Gyro- Vacuum  
DG02V-3

Specifications:

Operating Temperature Range.....-30 degrees C (-22 degrees F) to +50 degrees C (122 degrees F)  
Maximum Allowed Vibration.....5 to 50 ope 0.5 mm amplitude (.020 inches)  
Air Consumption ..... 34 + 5.7 liter/min (1.20+0.2 cubic ft/min)  
Momentum of Inertia..... 250 gr. Cm  
Angular Momentum ..... 0.520 x 10 gr. Cm  
Gyro wheel RPM(approx.)..... 20,000  
Weight ..... 8 lbs. (820 gr.)  
From start to running speed max ..... 3 minutes  
Drift calibration for southern Hemisphere ..... optional  
External Drift Calibration Device.

Installation Instructions

ATTENTION: Keep instrument in vacuum-sealed bag until you are ready to install instrument. If you remove the instrument from the vacuum-sealed bag and are not ready to install it yet, please run the instrument every 3 months to ensure proper operation.

Assemble the instrument on a shock-resistant panel so it is not subject to excessive vibrations. Dimensions of cutout to be made in instrument panel for installation are shown in Figs. 1.1 and 1.2. The instrument shall be mounted on the rear of the panel using three MS35214-31 screws.

CAUTION: Do not install instrument with screws longer than 15.87 mm (5/8")

Connect the instrument to the aircraft vacuum systems as shown in fig 3.3. Use connections AND 10064 or equivalent.

The central filter shall be able to remove 95% or 0.3-micron particles.

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