PAI-700
VERTICAL CARD MAGNETIC COMPASS

MAGNETIC COMPASS COMPENSATION INFO

The inherent magnetic field, present in all aircraft, will vary in pattern and intensity, aircraft to aircraft. The poly-plane compensator used on the PAI-700 Vertical Card Magnetic Compass provides adequate compensation adjustment for most aircraft. However, some aircraft have magnetic characteristics, which may necessitate additional compensating effort.

Always a good idea, when installing a magnetic compass, is to use a small permanent magnet and check all screws, washers, nuts, etc. in the vicinity of the compass for magnetic attraction. Should any be found, they can usually be replaced with brass, aluminum or non-magnetic stainless steel.

Magnetic shielding material, a nickel alloy, may be used effectively to contain the magnetic field radiated by permanent magnets used in the manufacture of some radio navigation indicators and some turn coordinators. The magnetic field induced by the flow of an electrical current may, on occasion, be similarly contained.

Another approach to consider is relocation of the compass mounting. Sometimes only a matter of inches can be very effective.

De-gaussing the aircraft is a lengthy specialized procedure. While this is sometimes effective for a time, magnetism in a structure will try to rearrange itself, similar to water seeking its own level.

The strategic placement of small permanent magnets to change the magnetic pattern has been a method used by some experienced personnel for years.

PAI PBB 475 BALANCING BALLS

The PAI PBB 475 Balancing Balls are designed specifically for use with the PAI-700 Vertical Card Magnetic Compass in an aircraft having a magnetic field or pattern which makes compensation particularly difficult, thereby necessitating the use of some means of increasing the compensating ability. Basically the Balancing Balls consist of two additional compensating magnets, one mounted on each side of the Vertical Card Magnetic Compass parallel to the fixed plane of the direction sensing magnet, whereas the poly-plane compensator magnets are located below the vertical axis.

The PAI PBB 475 Balancing Balls are sold in a kit containing all necessary mounting parts and complete instructions.

The PAI PBB 475 Balancing Balls are used in many different aircraft. To illustrate, they are used in some models of the following: Aztecs, Beavers, Beliancas, Commanders, Comanches, Cubs, Mooneys, Pitts, Chipmunk, and more.