

PMA Vizion Autopilot

The Vizion autopilot is a complete overhaul of our most popular autopilot offering ever, the Digiflight II. Vizion adds altitude select / altitude preselect as well as an emergency autopilot level button. Also new are a few user interface changes that simplify operation for both VFR and IFR operation.

Vizion can connect to both hand-held GPS units and IFR panel mount GPS systems. When connected to the hand-held GPS units, the autopilot can follow programmed flight plans with what we call GPS Nav. The panel mount / IFR GPS systems, the autopilot can follow roll steering commands to fly more complex flight plans. All of these amazing features mean that Vizion is one of the most versatile autopilots available today.

Brand new to the PMA Vizion autopilot is a safety feature called AEP. This feature works similar to lane assist or traction control. Anytime the autopilot is powered up and AEP is in standby mode, the autopilot is monitoring the aircraft bank angle. If the autopilot senses that the aircraft bank angle has gone beyond 45 degrees in either direction, it will send a modulated command to the roll servo, which will then input a correction force into the control system. This is not like traditional envelope protection systems, as the autopilot does not take the aircraft away from the pilot. It simply applies a corrective force into the controls, which the pilot can very easily override if needed / desired. This feature is designed to get the pilot's attention in situations when cockpit distraction is highest and to help the pilot know which way to move the controls to lower the bank angle.

The features included in the PMA Vizion Autopilot are:

- Bank Angle Select (if no GPS signal)
- Track Select
- GPS Nav (Point to point type flight plans)
- GPSS (Roll steering commands)
- Vertical Speed Select
- Altitude Hold
- Altitude Select
- Altitude Pre-Select
- GPSV (LPV Approaches)
- Control Wheel Steering
- Emergency Level
- AEP (Bank Angle Protection Mode)



Vizion - 2 1/4 round



Vizion - Flat pack



Vizion - 3 1/8 round



Emergency Level Button

PMA Servo

TruTrak's servo design has become the standard of the industry, with many competitors designing servos which are very similar, and use the exact same mounting dimensions and output shaft location and size. The truth is, the TruTrak servo is the simplest and most robust option on the market today. It is a servo designed with no software, a simple and robust slip clutch, a disengage clutch, and the servo is designed to have velocity limited torque (which means the faster the motor runs, the lower the torque output). What this means to you is that the servo is not capable of many of the bad things that autopilot servos are known to do, for example, a hard over runaway is not possible. Because the servo uses a complex wave form in unison with limited torque capability, you are protected from this sort of malfunction.

At TruTrak, we strive to use pushrod type servo attachment to the aircraft control system in order to simplify and reduce the cost of the installation. This method also provides an increase in autopilot performance.



60 In-lb PMA Servo

