



## **Technical Specifications: Flight Sensor Pack™**

*Artificial Horizon; Altimeter, VSI, G-Meter, Graphing & more*

*Last updated by James Wiebe, July 19, 2022*

“Flight Sensor Pack” is a portable Artificial Horizon combined with common aircraft instrumentation, all in a small package. Battery operated, it is useful for any pilot or passenger or flight enthusiast, even for passengers on commercial aircraft. As it is not attached or wired to the aircraft, it is legal for use in all aircraft as a backup instrument.

The seminal feature of Flight Sensor Pack is the Artificial Horizon, which allows pilots to visualize the horizon via the built in gyro reference. The response of the Artificial Horizon gyro is smooth, quick and accurate, similar to units selling for much higher pricetags.

### DISPLAY FEATURES:

- Artificial Horizon, presented as a graphic aircraft with a moving horizon background line
- G-Meter, showing continuous / maximum / minimum values, up to +/- 6 G's
- Variometer, showing instantaneous changes in pressure altitude with one foot increments
- VSI, presented in standard needle style with maximum values of +/- 2000 FPM
- Ambient Temperature, in Fahrenheit or Celsius
- Density Altitude, a crucial piece of safety planning for pilots, presented in bold RED, up to 10,000 feet, in increments of 100 feet per industry convention
- Altimeter, presented in standard 100 / 1000 foot needle style, along with digital Kollsman (adjustable pressure). The altimeter is calibratable for offset, and works between 0 and 20,000 feet.
- In addition to the graphic Artificial Horizon, Pitch and Roll values are also shown numerically, corresponding to the values associated with the simultaneous graphic display.
- Graphing Display – provides a graph of values over time, for instance, Altimeter or G-Meter or VSI

### PHYSICAL FEATURES:

- Size of 0.75” x 2 5/16” x 2 7/8” (19 x 59 x 73mm)
- Weight of 2.1 ounces (60 grams)
- Screen measurement of 2.5 inches diagonal (63.5mm)
- Lithium battery, 700mah capacity
- Runtime of about 4 ½ hours per charge
- USB charging port, with included USB charging cable (charger not included, attach to any port)
- Charge time of 2 hours
- Daylight readable screen

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- Round hook for attaching lanyard (included)
- Case is 3D printed in rugged nylon / chopped carbon fiber
- On / off switch
- Operating temperature of -20 to +60 C

## FUNCTIONALITY

The Flight Sensor Pack is very easy and intuitive to operate.

- The switch turns the unit on and off.
- The startup screen shows the Artificial Horizon, along with numerical values of pitch and roll
- The startup screen also shows a digital altimeter, along with its Kollsman pressure setting.
- Pressing either “up” or “down” button **very briefly** will cause the Kollsman value to change
- Holding either button down for more than one second will cause the unit to advance to the next screen
- The second screen is the G Meter. It shows continuous, min and max values of G forces. It also shows the digital altimeter. The up and down buttons only change the Kollsman value. To reset the min/max values, recycle the power on your unit.
- Once again, holding either button down for more than one second will cause the unit to advance to the next screen
- The third screen is the classic altimeter
- The fourth screen is the classic VSI
- The fifth screen is graphing variometer
- The sixth screen is a general purpose graphing screen. On this screen only, pressing the up and down buttons allow you to select which parameter you want to graph --- Altitude, G Force, VSI are options
- To enter altimeter calibration mode, hold a button down before, while and during powerup. You will be given the option to permanently adjust the altimeter offset value.

## About RADIANT Technology

RADIANT Technology is starting anew, after a fire ended most business activities in 2019 and after the Covid pandemic. RADIANT Technology is focused on providing products which “Enable Adventure” for all who enjoy and use aviation: pilots, passengers, radio listeners and every adventurer at heart.

## About James Wiebe

James Wiebe is a serial entrepreneur, with RADIANT Technology being his latest startup (or startover). In the 80’s and 90’s, James grew Newer Technology to be the largest Macintosh CPU upgrade company on the planet (over 250k accelerators sold; Steve Jobs was not a fan). In 2000, James started and eventually sold WiebeTech, a forensic technology company. James holds four patents and is an

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instrument rated pilot with about 2000 flight hours in many different aircraft. James' proudest achievement is being the father of two twin grandbabies, with a third coming later in 2022. James is supported by Kathy, who provides support, guidance and love. James is also supported by a little dog named Cocoa, who wandered into his and Kathy's lives after a tough start to life in the wild fields near Wichita, KS.

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