

Engine Monitor Options

Whitepaper Summary

Understanding the health and management of your expensive aircraft engine has become much easier and more economical. New technology has allowed a handful of companies to introduce graphical engine monitors for the GA fleet of aircraft. These instruments have the ability to monitor EGT (exhaust gas temperature) and CHT (cylinder head temperatures) while storing the data in memory. Depending on the unit, the following features are both standard and optional: Fuel Totalizer, Oil Pressure, Oil Temp, OAT, RPM, MAP, etc. Not only do these units allow you to monitor the health of your engine they often allow you run leaner, saving fuel and paying back your investment.

The pricing included in this paper is the manufacturer’s list price for a 6 cylinder and is in USD (as of May 2013, selling price is usually lower). Installation typically costs as much as the instrument does and can vary greatly depending on the number of probes installed and the airframe. Note; some units come with all the probes, some are optional.

- **Electronics International**

- **UBG-16**

The UBG-16 is a good monochrome bar graph display of your EGT/CHT and other key engine functions. This is an ideal solution if you happen to have already installed one of their legacy products. It is possible to add fuel flow to this monitor but it doesn’t have the features of a stand-alone fuel flow display.



Cost: US\$2,098 without Fuel Flow

- **MVP-50P**

The MVP-50P is E.I.’s solution to the all in one engine monitor. It is certified as a primary replacement for all engine gauges. That means you can take out all engine related gauges and substitute the MVP-50P including removing your primary fuel gauges. Typically these larger displays require a new panel fabrication.



Cost: US\$6,485 with Fuel Flow

- **Insight Avionics**

- **G1,G2,G3,G4 series**

Insight came out with the first bar graph analyzer decades ago and they recently introduced their next generation colour 2 ¼ “ and 3” versions. This is a unit packed with features albeit hard to see all the data in the smaller version. They have done a nice job with offering different packages at different price categories to suit all owners.



Cost: G3 US\$3,367 with Fuel Flow

- **JP Instruments**

- **EDM700**

This instrument is also a monochrome bar graph display. It features many options along with a fully featured fuel flow/totalizer. To date this has been the most popular monitor mainly because it is slightly more user friendly than its competitors. This unit now comes as a 2 ¼ “ or 3 1/8 “ sizing.



Cost: US\$3,025 with Fuel Flow

EDM730/830

This is a recently introduced product and basically has the same information but on a multicolour larger LCD display. The advantage of this is it displays all of the data at once instead of having to scroll through it. Very good solutions as long as you have room in your panel. It fits in a 3 1/8" hole but the display is larger. The EDM830 offers everything the 730 does plus RPM, MAP, OAT, Oil temp & pressure, % of HP



EDM730 Cost: US\$3,668 with Fuel Flow

EDM830 Cost: US\$4,660 with Fuel Flow

○ EDM900/930

This is the all-in-one engine monitor, not only is it a larger display but it is STC'd for primary instrument replacement. What this means is you can take out your EGT/CHT, your engine cluster (Alt, Oil, etc), RPM, MAP, and Fuel level indicators and drop this in place. Graphically a nice looking product that does it all but will require some panel work.



EDM900 Cost: US\$6,707 with all functions and probes

EDM930 Cost: US\$7,143 with all functions and probes

- **EDM960**

This is JPI's solution for the twin engine market. Uses the same display as the EDM930 but has remote boxes to allow termination at the firewall and then a data cable to the display box in the panel



EDM960 Cost: US\$17,444 with all functions and probes

- **Ultra Electronics**

- **Auracle CRM2100**

The AuRACLE CRM2100 is a dual-box networked system. The system's Engine Interface Unit (EIU) is mounted on the engine-side of the firewall. All engine sensors connect directly to the EIU. Certified to replace all primary engine gauges but not fuel level. A well thought out product but also requires some panel work.



CRM2100 Cost: US\$7,495 with all functions and probes

○ Auracle CRM2120

The AuRACLE CRM2120 uses the same technology as above but is a dual screen version designed for the twin engine market.



CRM2120 Cost: US\$15,995 with all functions and probes