

- Price List -



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# for SINGLE and TWIN Pistion Engine Aircraft



# **MVP-50P FOR PISTON ENGINE AIRCRAFT**

(STC'd and TSO'd as Primary Replacement)

Without question, the MVP-50P is the industry's finest engine analyzer and systems monitor. The MVP-50P is a full color, glass-paneled, completely customizable engine analyzer. The MVP-50P allows pilots to accurately monitor dozens of engine and system parameters, program redline limits, set up custom inputs, create interactive checklists, store general flight information, build flight plans, record and review pertinent data from every flight, and so much more. The MVP-50P has been designed with the same thoughtful engineering that goes into every El product, so even though the MVP-50P is by far the most powerful system in the industry, it is sure to be one of the easiest systems to use in your cockpit.

**Specifications:** 5.52" x 5.16" x 2.43" depth. Viewable in direct and indirect sunlight.

**Hardware:** All of the probes and transducers are connected to the EDC (Engine Data Converter). This small box  $(4.5" \times 3.5" \times 2.2")$  converts all engine data to serial data, which is then provided to the MVP-50P via two wires. This reduces installation time and the wire bundle to the instrument panel by over 100 wires. The EDC can interface with any probe or transducer. The EDC comes prewired (i.e., the harnesses are provided with each MVP-50P package).



The MVP-50P has over 14 different screens

# **TWIN PISTON ENGINE SOLUTION:**



# LEFT

RIGHT

Two MVP-50P's provide the ultimate solution for a twin-engine aircraft. The moment an engine problem arises with one of the engines the digital display for the out-of-limit function will blink in the color of its current operating range. In addition, an external caution or warning light will blink giving the pilot the earliest possible indication of an issue. All the information needed for the engine in question is in a single display. You do not have to hunt all over the instrument panel to find the data necessary to make a decision.

The accuracy of the digital display for each engine parameter (M.P., RPM, Fuel Flow, etc.) allows the pilot to balance each engine's performance and synchronize the props with ease. Check out our website and see some of the twin-engine installations and the 14 additional screens available for the MVP-50P.

# ALL PACKAGES INCLUDE:

#### HARDWARE INCLUDED:

MVP-50P Color Display Unit EDC Engine Data Converter **Prewired Harness** All EGT & CHT Probes and Cables Oil Pressure Transducer and Cable Oil Temperature Probe and Cable Fuel Pressure Transducer and Cable Fuel Flow Transducer and Cable OAT Probe and Cable Two RPM Pickups and Cables Manifold Pressure Transducer and Cable Shunt (for AMPS) and Cable Volts Pickup 1000+ Hrs Data Recording **USB Memory Stick** AL-1R and AL-1Y (External Cautionary and Warning Lights) AV-17 Voice Warning (For Experimentals Only) Annunciator Interface Resistive Fuel Interface

#### **OTHER FUNCTIONS INCLUDED:**

Help Screen EGT Differential CHT Differential Shock Cooling Horsepower Weight and Balance Data Weight and Balance Graph GPS Interface and Data Fuel Efficiency Fuel Used for the Trip Fuel Used Since Fill Up Time to Empty Distance to Empty Fuel to Waypoint Data Recording Time to Waypoint Distance to Waypoint Fuel Reserve Time Reserve Distance Reserve Up Timer Down Timer Flight Timer Tach Timer Engine Hours Date Local Time Zulu Time Voice Warnings (For Experimentals Only) Chelton & GRT Output

# **Experimental A/C Packages**

MVP-50P-4: 4-Cylinder Package	\$ 5,180.00
MVP-50P-6: 6-Cylinder Package (For Engines over 350 hp specify the FT-90 Fuel Flow Transducer)	\$ 5,680.00
MVP-50P-7: 7-Cylinder Radial Package (For Engines over 350 hp specify the FT-90 Fuel Flow Transducer)	\$ 5,880.00
MVP-50P-8: 8-Cylinder Air Cooled Package (Comes with two EDC-33P's)	\$ 6,680.00
MVP-50P-8W: 8-Cylinder Water Cooled Package	\$ 5,680.00
MVP-50P-9: 9-Cylinder Radial Package (Comes with two EDC-33P's)	\$ 6,680.00
MVP-50P-12W: 12-Cylinder Water Cooled Package (Thunder Mustang)	\$ 5,780.00
MVP-50P-4/6-FADEC: 4 or 6-Cylinder FADEC Aerosance Package	\$ 5,180.00

# **Certified Packages**

# (TSO'd, STC'd. See AML for applicable aircraft)

MVP-50P-4-C: 4-Cylinder Package	\$ 6,180.00
MVP-50P-6-C: 6-Cylinder Package	\$ 6,680.00
MVP-50P-8-C: 8-Cylinder Air Cooled Package	\$ 7,680.00
MVP-50P-4T-C: Twin 4-Cylinder Package (two MVP-50P Packages, three EDC's)	\$13,180.00
MVP-50P-6T-C: Twin 6-Cylinder Package (two MVP-50P Packages, three EDC's)	\$14,180.00

# **Ordering Info**

An MVP-50P Worksheet must be filled out for each MVP ordered. This Worksheet provides information necessary set up the MVP-50P for your aircraft. It also provides information to help you select options you may want to add to the system. The Worksheet can be downloaded by going to www.buy-ei.com. At the top of the page select "Downloads," and under "MVP-50P (Piston Engine)" select "MVP-50P Worksheet."

# Options

# (For all packages listed in this Price Sheet)

<b>Type-K Cable:</b> XDO-6'-MVP, Type K, 6-foot extension cable with connectors and D-Sub pins (\$1.60 for each additional foot) <b>Four-Wire Cable:</b> Cbl-4D-6'-MVP, 6-foot four-wire cable with connectors and D-Sub pins. (\$1.60 for each additional foot) <b>G-Meter:</b> GS-3, 0.1g resolutions, +/- 8 g's max, for recording g's during the entire flight	
TIT Probe: specify P-111 (1/8" NPT), P-112 (7/16"-20) or P-114 (1/4" NPT), less cable         Carb Temp Probe: P-128, 1/4"-28, less cable	
Aux Volts and Amps: FM-VA-3 module. Provides three each Amp channels and three each Volt channels. Specify an S-50 (100amp, standard) or S-300 (300amp) shunt	\$ 195.00
Vacuum Pressure: PT-05Diff, 0 to 6 In Hg Airspeed: PT-05Diff, 0 to 350 Kts indicated	\$ 150.00
Pressure Altitude: PT-30Alt, up to 40,000 ft Cabin Altitude: PT-30ABS, up to 20,000 ft	\$ 150.00
Cabin Differential Pressure: PT-05Diff, 0 to 6 ln Hg High Manifold Pressure: PT-60ABS, 0 to 70 ln Hg Hydraulic Pressure: PT-3000S, 0 to 3000 psi	\$ 150.00
H2O Pressure: PT-04H2O, measures pressure from 0 to 5" of water. Measure cowls, induction, ballonets, drag, etc. Upper Deck Pressure: PT-30GA, 0 to 40 psi, for measuring Fuel Pressure on a turbocharged aircraft	
Capacitive Fuel Level Probe: P-300C (3/4") with Accessories (see Accessories at the back of this document) Mini Capacitive Fuel Level Probe: P-300C Mini (see Accessories at the back of this document)	\$ 295.00
Magnetic Float Sensor: P-300M, accurate replacement for a resistive sensor (see Accessories at the back of this document) Balance Fuel Probes in a Tank: FLAM-4, adds up to 4 Capacitive Fuel Level Probes and Provides 1 Output	
Fuel Flow Differential Module: FFDM-1-xx, for aircraft with a pressure carburetor. Includes FT-60 or FT-90 flow transducer to measure the returned fuel. Specify FT-60 or FT-90 flow transducer	\$ 395.00
Fuel Flow Add Module:       FFAM-1 adds flow from two feed lines. Specify FT-60 or FT-90 flow transducer         Fuel Flow from a Pulsed Injector:       FM-Flow-P, measures Fuel Flow from a pulsed injector signal         Curch an Managerida Data thema is a construction of the pulsed injector signal       FM-Flow-P, measures Fuel Flow from a pulsed injector signal	\$ 395.00 \$ 395.00
<ul> <li>Carbon Monoxide Detector: by CO Guardian, Requires an RS232 Input Port 3 on the MVP, unit also provides Cabin Pressure (Altitude) and Cabin Temperature (No Discounts)</li> <li>Real-Time Data Out: RTDO, provides Real Time Data out of the MVP-50</li> </ul>	\$ 495.00 \$ 667.00

# Accessories

MVP Sub-panel: Makes installation of the MVP in an existing aircraft panel much easier. A 10.1" x 10.5" x .062"
aluminum panel with a cutout for the MVP. This panel can be cut to size allowing front mounting of the MVP
MVP-50P, Display Only, Non TSO'd: 1 EDC can drive multiple MVP-50P Displays. \$3,550.00
MVP-50P, Display Only, TSO'd: 1 EDC can drive multiple MVP-50P Displays. \$4,550.00
EDC-33P: Engine Data Converter. Adding a second EDC to the MVP, provides 30 additional channels. Requires Port 3\$ 995.00
EGView: EGView Charting Software. Use for analyzing and downloading data to the MVP-50P. — (No Discounts)
USB-8G: USB Memory Stick, 8GB or larger. Used to upload and download data to the MVP-50P
CP-1A: External pot used to control the display intensity of the MVP-50P and external Red and Yellow LEDs. \$39.00

# MVP-50T ENGINE MONITOR FOR TURBOPROP AND JET ENGINE AIRCRAFT

(STC'd and TSO'd as Primary Replacement)

**Engine and System Monitoring:** The MVP-50T is a TSO'd unit that replaces over 15 engine instruments and 50 functions in a single full-color glass panel display. The MVP-50T features programmable colors, ranges, limits and a voice alarm (for experimentals only) for each instrument displayed. A system page displays trims, flaps, gear status lights and many system parameters. Also, the MVP-50T incorporates a Crew Alert System (CAS) with 27 annunciators located at the top of the Main Engine Display Screen. These annunciators may be customized and programmed to display any color for the appropriate input signal and can have a voice warning (for OEMs and experimentals only) associated with them.

**In-Flight Data:** The MVP-50T provides many "Flight Data Screens" to reduce cockpit clutter and pilot workload. Some of these screens are: Fuel Management, Timers, Clocks and Date, Weight and Balance, Data Recording, Custom Checklists, Custom Flight Plans, General Information, Flight Log, Start Log, Max Data Log, Min Data Log and other screens. The pilot can easily generate custom checklists and flight plans and download them to the MVP-50T through the USB port.

**Hardware:** All of the probes and transducers are connected to the EDC (Engine Data Converter). This small box  $(4.5'' \times 3.5'' \times 2.2'')$  converts all engine data to serial data, which is then provided to the MVP-50T via two wires. This reduces installation time and the wire bundle to the instrument panel by over 100 wires. The EDC can interface with any El probe or transducer. The EDC comes pre-wired (i.e., the harnesses are provided with each MVP-50T package).

# KINC MINH MINH

Main Screen





System Screen

# TWIN ENGINE SOLUTION:





For a twin-engine turboprop aircraft, there are several options. You can choose a single MVP-50T with 8 arcs on the Main Screen as shown at the left. This only leaves you with 6 additional digital gauges on the Main Screen and 4 strips and 7 digital gauges on the System Screen.

The most elegant option is to choose two MVP-50T systems configured as shown. This gives you 8 arc gauges, 12 strip gauges, 12 digital gauges and 38 annunciators all on the Main Screen. Also, as a backup, you can put some of the primary gauges shown on the Top MVP Display onto the System Screen of the Bottom MVP Display.

This combination of MVP-50T's provides a consolidated view of instruments, gauges and annunciators that can clean up a crowded instrument panel while providing an accurate and reliable group of well-placed functions. One of the many impressive features of the MVP-50T is its ability to alert the pilot the moment a function or annunciator exceeds its programmed limit. Also, all data is recorded every 1/3 of a second for trend and limit analysis. Our MVP-50T Twin Engine Worksheet will help you configure the units (see www.buy-ei.com > Downloads > look under "MVP-50T".

**Specifications:** 5.52" x 5.16" x 2.43" depth. Accuracy: 1/2%. Viewable in direct and indirect sunlight. Backlit for night operation.

# ALL PACKAGES INCLUDE

#### HARDWARE INCLUDED:

MVP-50T Color Display Unit EDC Engine Data Converter N1 and N2 Pickup ITT Cable **Torque Pressure Transducer** Oil Pressure Transducer Oil Temperature Probe and Cable Fuel Pressure Transducer Fuel Flow Transducer OAT Probe and Cable Shunt (for AMPS) Volts Pickup USB Download/Upload Memory Stick 1000+ Hrs Data Recording AL-1R External Red Warning Light AL-1Y External Yellow Caution Light AV-17CP Voice Warning (For Experimental A/C Only) Resistive Fuel Interface

#### **OTHER FUNCTIONS INCLUDED:**

- Help Screen Weight and Balance Data Weight and Balance Graph GPS Interface and Data Fuel Efficiency Fuel Used for the Trip Fuel Used Since Fill up Time to Empty Distance to Empty Fuel to Waypoint Time to Waypoint Distance to Waypoint
- Fuel Reserve Time Reserve Distance Reserve Up Timer Down Timer Flight Timer Engine Hours Cycles Date Local Time Zulu Time Voice Warnings (For Experimental A/C Only)

# MVP-50T Turboprop/Jet Engine Packages Experimental A/C Packages

MVP-50T-PT6: Pratt & Whitney PT-6 Turboprop Package	\$ 6,995.00
MVP-50T-W: Walters Turboprop Package	\$ 6,995.00
MVP-50T-G: Garrett Turboprop Package	\$ 6,995.00
MVP-50T-L: Lycoming Turboprop Package	\$ 6,995.00
MVP-50T-A: Allison Turboprop Package	\$ 6,995.00
MVP-50T-J85: General Electric J85 Jet Engine Package	\$ 6,995.00
MVP-50T-L39: L39 Aircraft Package	\$ 8,762.00
L39 Aircraft Tandem Display option:	\$ 5,200.00
MVP-50T-WJ33: Williams J33 Jet Engine Package	\$ 6,995.00

# **Certified Packages**

(TSO'd, STC'd. See AML for applicable aircraft)

MVP-50T-PT6-C: Pratt & Whitney PT-6 Turboprop Package	\$ 9,950.00
MVP-50T-W-C: Walters Turboprop Package	
MVP-50T-G-C: Garrett Turboprop Package	
MVP-50T-L-C: Lycoming Turboprop Package	
MVP-50T-A-C: Allison Turboprop Package	
MVP-50T-J85-C: General Electric J85 Jet Engine Package	\$ 9,950.00
MVP-50T-WJ33-C: Williams J33 Jet Engine Package	\$ 9,950.00
MVP-50T-Twin-C: Twin-Engine Package (TSO'd Only)	\$21,233.00

# Options

# (For All Packages Listed On This Price Sheet)

<b>Type-K Cable:</b> XDO-6'-MVP, Type K, 6-foot extension cable with connectors and D-Sub pins (\$1.60 for each additional foot) <b>Four-Wire Cable:</b> Cbl-4D-6'-MVP, 6-foot four-wire cable with connectors and D-Sub pins. (\$1.60 for each additional foot)	\$ 39.00 \$ 59.00
G-Meter: GS-3, 0.1g resolution, +/- 8 g's max, for recording g's during the entire flight	\$ 495.00
<b>TIT Probe:</b> specify P-111 (1/8" NPT), P-112 (7/16"-20) or P-114 (1/4" NPT), less cable	\$ 98.00
Carb Temp Probe: P-128, 1/4"-28, less cable	\$ 98.00
Aux Volts and Amps: FM-VA-3 module. Provides three each Amp channels and three each Volt channels. Specify a S-50	
(100amp, standard) or S-300 (300amp) shunt	\$ 195.00
Vacuum Pressure: PT-05Diff, 0 to 6 In Hg.	\$ 150.00
Airspeed: PT-05Diff, 0 to 350	\$ 150.00
Pressure Altitude: PT-30Alt, up to 40,000 ft	\$ 395.00
Cabin Altitude: PT-30ABS, up to 20,000 ft.	\$ 150.00
Cabin Differential Pressure: PT-05Diff, 0 to 6 In Hg.	\$ 150.00
High Manifold Pressure: PT-60ABS, 0 to 70 In Hg.	\$ 150.00
Hydraulic Pressure: PT-3000S, 0 to 3000 psi.	\$ 250.00
<b>H2O Pressure:</b> PT-04H20, measures pressure from 0 to 5" of water. Measure cowls, induction, ballonets, drag, etc.	\$ 250.00
Upper Deck Pressure: PT-30GA, 0 to 40 psi, for measuring Fuel Pressure on a turbocharged aircraft	\$ 195.00
Capacitive Fuel Level Probe: P-300C (3/4") with Accessories (see Accessories at the back of this document)	\$ 295.00
Mini Capacitive Fuel Level Probe: P-300C Mini (see Accessories at the back of this document)	\$ 295.00
Magnetic Float Sensor: P-300M, accurate replacement for a resistive sensor (see Accessories at the back of this document)	\$ 395.00
Balance Fuel Probes in a Tank: FLAM-4, adds up to 4 Capacitive Fuel Level Probes and provides 1 Output	\$ 475.00
Fuel Flow Differential Module: FFDM-1-xx, for aircraft with a pressure carburetor. Includes FT-60 or FT-90 flow	
transducer to measure the returned fuel. Specify FT-60 or FT-90 flow transducer	\$ 395.00
Fuel Flow Add Module: FFAM-1 adds flow from two feed lines. Specify FT-60 or FT-90 flow transducer	\$ 395.00
Fuel Flow from a Pulsed Injector: FM-Flow-P, measures Fuel Flow from a pulsed injector signal	\$ 395.00
Carbon Monoxide Detector: by CO Guardian, Requires an RS232 Input Port 3 on the MVP, unit also provides	
Cabin Pressure (altitude) and Cabin Temperature. (No Discounts)	\$ 495.00
Real-Time Data Out: RTDO, provides Real Time Data out of the MVP-50	\$ 667.00

# Accessories

<b>MVP Sub-panel:</b> A 10.1" x 10.5" x .062" aluminum panel with a cutout for the MVP	\$ 85.50
MVP-50T (Display Only): 1 EDC can drive multiple MVP-50T Displays, Non TSO'd unit	\$ 5,200.00
MVP-50T (Display Only): 1 EDC can drive multiple MVP-50T Displays, TSO'd unit	\$6,500.00
EDC-33T: Engine Data Converter. Adding a second EDC to the MVP provides 30 additional channels	\$ 2,450.00
USB-8G: USB Memory Stick, 8GB or larger. Used to upload and download data to the MVP-50T	\$ 10.00
CP-1A: External pot used to control the display intensity of the MVP-50P and external Red and Yellow LEDs.	\$ 39.00



**Specifications:** 3.125" x 3.125" x 4.45" depth. Accuracy: 1/2%. Viewable in direct and indirect sunlight. Backlit for night operation.

# CGR-30P COLOR ENGINE MONITOR

(STC'd and TSO'd as Primary Replacement)

Our STC'd/TSO'd CGR-30P can replace your aircraft's tachometer and MANY of your existing primary instruments. Because the CGR-30P is installed in a standard 3-1/8" hole, it doesn't protrude from your panel or cover adjacent instruments. This gives the CGR-30P a distinct advantage over the competition because it seamlessly integrates into your panel, is easy to install and is the perfect size to fit into an aircraft panel.

One of the many impressive features of the CGR-30P is its ability to alert the pilot the moment a function exceeds its programmed limit. All engine data is displayed in one location. There's no need to search the entire instrument panel to obtain critical data.

Our CGR-30P Worksheet will help you configure your instrument. (see www.buy-ei.com > Downloads > look under "CGR-30P."

#### **AVAILABLE FUNCTIONS:**

The CGR-30P features a state-of-the-art, full-color bar graph which assists with ROP/LOP leaning. Additionally, the bar graph provides both "normalized" and digital readout screens. Other bar graphs don't provide nearly as many options as CGR-30P. In addition to its bar graph, the CGR-30P can be configured to display a combination of the functions listed at the right.

Fuel Pressure Fuel Level Fuel Flow Fuel Remaining Fuel Used Fuel -GPS Related Data Low Fuel Alarm Recurring Fuel Alarm Volts Amps Flight Timer Tach Timer Local Time Zulu Time Annunciators Data Recording USB Port External Caution Lights And More





#### Secondary Screen

This screen displays six additional functions on the CGR-30P, as well as annunciators to display Main Screen alerts.





#### **GPS Data Screen**

This screen allows you to select between Fuel Flow, Fuel Remaining and GPS-related data.



#### **Fuel Quantity Screen**

This screen displays the estimated Fuel Remaining for each tank, based on current Fuel Flow.

#### **AVAILABLE SCREENS:**

In addition to the "Main Screen", the CGR-30P offers a "Secondary Screen", a "Fuel Quantity Screen" and a "GPS Data Screen." These additional screens give the CGR-30P flexibility not found in other engine instruments.

# **CGR-30P BASIC**

(STC'd and TSO'd as Primary Replacement)

**Included:** RPM, Fuel Flow, EGT/ CHT Bar Graph, Fuel Remaining, Volts, OAT, Tach Time, Local Time, Zulu Time, Flight Timer, Fuel Used for the Flight, Fuel Used Since Fill Up and all GPS/Fuel Flow Data. No additional function can be added.



# **CGR-30P PREMIUM PACKAGE**

(STC'd and TSO'd as Primary Replacement)

**Included:** RPM (Arc Gauge), EGT/CHT Bar Graph, Fuel Remaining, Fuel Used, GPS/Fuel Flow Data, Eng Time and Tach Time.

# Second Arc:

M.P.

# **Pick Four Primary Functions:**

Oil P, Oil T, Fuel Flow<sup>1</sup>, Fuel Pressure<sup>2</sup>, Right Fuel Level<sup>3</sup>, Left Fuel Level<sup>3</sup>, Aux Fuel Level<sup>3</sup>, TIT, Vac, Volts and Carbon Monoxide Detector<sup>4</sup>.

# **Pick Up To Five Additional Functions:**

OAT	···· N/C
HP (requires RPM and MP)	N/C
Flight Timer	
Local Time	••••• N/C
Zulu Time	
Hydraulic Press	\$250.00
Fuel Flow (If not selected as a primary)	\$295.00
G-Meter	\$495.00
Fuel Level(s) for a tank that does not feed the engine	\$98.00
Carb Temp or IAT	\$95.00
Amps ····	\$39.00
Second Amp Measurement	\$195.00
Additional Options:	

ADC-1: Automatic Dimming Control Sensor: \$79.95

CP-1A: External pot used to control the display intensity of the CGR-30P and external Red and Yellow LEDs. \$39.00

CGR-30P-4-Premium (4-Cyl Engine) Pkg ......\$4,217

CGR-30P-6-Premium (6-Cyl Engine) Pkg ...... \$4,714







System Screen

<sup>1</sup>Measuring Fuel Flow on a pressure carburetor requires an FFDM-1 – \$395.00
 <sup>2</sup>Turbocharged engine requires an upper deck pressure transducer – \$195.00
 <sup>3</sup>Fuel Level Sensors not included

<sup>4</sup>Carbon Monoxide Detector (Additional \$495)

# **CGR-30P for Twin Engine Piston Aircraft**

# **CGR-30P TWIN PACKAGE**

(STC'd and TSO'd as Primary Replacement)

Two Premium CGR-30P heads included at prices listed below. Options below are per head.

**Included On Both Heads:** RPM (Arc Gauge), EGT/CHT Bar Graph, Fuel Remaining, Fuel Used, GPS/Fuel Flow Data, Eng Time and Tach Time.

# Pick Second Arc For Each Head:

M.P. or Fuel Flow<sup>1</sup>

#### Pick Four Primary Functions For Each Head:

Oil P, Oil T, Fuel Flow<sup>1</sup>, Fuel Pressure<sup>2</sup>, Main Fuel Levels<sup>3</sup>, Aux Fuel Level<sup>3</sup>, TIT, Vac, Volts and Carbon Monoxide Detector<sup>4</sup>.

CGR-30P-4T (4-Cyl. Twin) .....\$8,436

CGR-30P-6T (6-Cyl. Twin) ......\$9,428

Pick Up To Five Additional Functions For Each Head:

OAT	• N/C
HP (requires RPM and MP)(For both heads)	· N/C
Flight Timer	· N/C
Local Time	· N/C
Zulu Time	· N/C
Hydraulic Press Add	\$250
Fuel Flow (If not selected as a primary)(For both heads) Add	\$295
G-Meter Add	\$495
Fuel Level(s) for a tank that does not feed the engine Add	\$98
Carb Temp or IAT (For both heads) Add	\$196
Amps(Left & Right)Add	\$78
Second Amp Measurement Add	\$195
Additional Options	



**Specifications:** Each instrument fits standard 3 1/8" Hole. Dimensions: 3.125" x 3.125" x 4.45" depth. Accuracy: 1/2%. Viewable in direct and indirect sunlight. Backlit for night operation. STC'd and TSO'd as Primary Replacements.

<sup>1</sup>Measuring Fuel Flow on a pressure carburetors requires an FFDM-1's (2 included) – \$790.00 <sup>2</sup>Turbocharged engines requires an upper deck pressure transducers (2 included) – \$390.00 <sup>3</sup>Fuel Level Sensors not included <sup>4</sup>Carbon Monoxide Detector (Additional \$495)

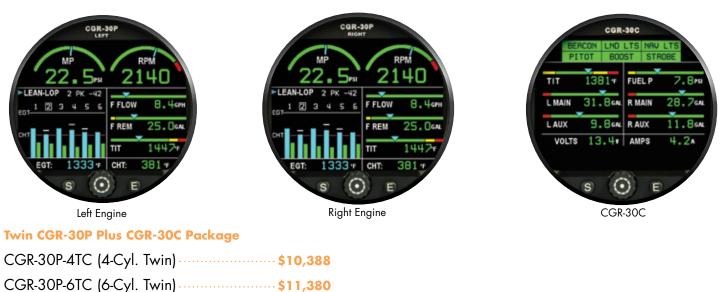
# **Additional Options:**

ADC-1: Automatic Dimming Control Sensor: \$79.95

CP-1A: External pot used to control the display intensity of the CGR-30P and external Red and Yellow LEDs. \$39.00

# CGR-30P TWIN COMBO PACKAGE

Two Premium CGR-30P's and One CGR-30C.





Shown with all Strip Gauges

#### **Pick Up To 8 Functions:**

Fuel Flow<sup>1</sup> RPM (Arc Gauge) Manifold (Arc Gauge) EGT CHT TIT OAT Oil Pressure Oil Temperature Fuel Pressure<sup>2</sup> Hydraulic Pressure Vacuum G-Meter Fuel Level (Up to 4 tanks)<sup>3</sup> Carb Temp or IAT

# Pick Up To 8 Additional Functions:

HP (Requires RPM, Manifold and EGT) Engine Time (Requires RPM) Tach Time (Requires RPM) Flight Timer (Requires RPM) Local Time Zulu Time Volts Amps Carbon Monoxide Detector<sup>4</sup>

<sup>1</sup>Measuring Fuel Flow on a pressure carburetors requires an FFDM-1 – \$395.00
 <sup>2</sup>Turbocharged engine requires an upper deck pressure transducer – \$195.00
 <sup>3</sup>Fuel Level Sensors not included
 <sup>4</sup>Carbon Monoxide Detector (Additional \$495)

# **Additional Options:**

ADC-1: Automatic Dimming Control Sensor: \$79.95 CP-1A: External pot used to control the display intensity of the CGR-30C and external Red and Yellow LEDs. \$39.00

# Also included are up to 6 annunciators tied to external switches.

CGR-30C - without EDC	\$1,952
CGR-30C - with EDC	\$2,952

If the CGR-30C is operating with a CGR-30P in the panel, an EDC will NOT be required.

# **CGR-30C PACKAGE**

(STC'd and TSO'd as Primary Replacement)

The CGR-30C can replace up to 16 Primary Instruments, so you can remove an ENTIRE INSTRUMENT CLUSTER and replace with a single 3-1/8" instrument. Oil Temperature/Pressure, Fuel Pressure, even Fuel Level instruments can now be removed to give you the peace of mind that comes from flying behind world-class, technologically advanced engine and system monitoring equipment.

Another option is to replace your RPM, Manifold Pressure and cluster gauges with our accurate and reliable CGR-30C and keep your current engine analyzer. Removing your RPM gauge provides the mounting location for the CGR-30C.

**Specifications:** Each instrument fits standard 3 1/8" Hole. Dimensions: 3.125" x 3.125" x 4.45" depth. Accuracy: 1/2%. Viewable in direct and indirect sunlight. Backlit for night operation. STC'd and TSO'd as Primary Replacements.



**Checklists Screen** 

# CGR-30 COMBO Package



**Specifications:** Each instrument fits standard 3 1/8" Hole. Dimensions: 3.125" x 3.125" x 4.45" depth. Accuracy: 1/2%. Viewable in direct and indirect sunlight. Backlit for night operation. STC'd and TSO'd as Primary Replacements.

#### 4 & 6 Cylinder Packages Available

- ✓ Primary Replacement RPM
- ✓ Primary Replacement Manifold Pressure
- ✓ Primary Replacement Fuel Level (up to 4 fuel tanks)
- ✓ Primary Replacement EGT/CHT Bargraph
- ✓ Primary Replacement Oil Pressure
- ✓ Primary Replacement Oil Temperature
- ✓ Primary Replacement Volts
- ✓ Primary Replacement Amps
- ✓ Primary Replacement OAT
- ✓ Primary Replacement Fuel Flow
- <sup>™</sup> Fuel Remaining and Fuel Used
- GPS/Fuel Flow Data
- <sup>™</sup> Engine Time and Tach Time
- <sup>™</sup> Flight Timer
- ☑ Local Time and Zulu Time
- <sup>™</sup> Pilot Programmable Checklists

#### **Options (No Charge)**

- ✓ Primary Replacement Fuel Pressure\*
- Ø Primary Replacement Hydraulic Pressure\*
  - ✓ Primary Replacement TIT\*
  - Primary Replacement Carb Temp or OAT\*
  - ✓ Second Amps Measurement\*
  - 🗹 On Screen Annunciators
  - 𝗹 G-Meter
  - ✓ Horsepower
  - ✓ Return Fuel Flow Transducer (Pressure/Carb)\*
  - ✓ More options may be available

#### \* If applicable for your aircraft

#### **Additional Options:**

CO Detector (CO Guardian): \$459 Primary Float Type Replacement Fuel Probes: \$395/ea Automatic Dimming Control Sensor: \$79.95

4-Cylinder Combo Package	\$5,595
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6-Cylinder Combo Package \$5,995



Rechcraft

BEFORE			
1. Main Fuel	4. Aux Fuel	7. Fuel Flow	10. Fuel Press/
2. Oil Temp	5. CHT	8. Tach/RPM	Man Press
3. Amps	6. Oil Press	9. Bar Graph	

# TR-1 for Turboprop & Jet Engine Aircraft



Each TR-1 displays a single function. Available: EGT, Fuel Flow, Fuel Level, TAT, OAT, Hydraulic Pressure, Oil Pressure, Oil Temp, Fuel Temp, Volts, Amps, AOA, Vibration, Strain or almost anything that has a signal.

The TR-1 is our newest line of TSO'd instruments for turboprop and jet engines. They fit in a standard MS28042-1A two-inch round mounting clamp and are replacements for the old needle gauges found in most turboprop and jet engine aircraft. Our TR-1 line has a rich set of features at an extraordinarily low price.

We offer two TR-1 options: Standard and Premium. The Standard TR-1 package is designed to meet the price point for customers wanting rugged and reliable replacement instruments at a great price. The Premium TR-1 package is targeted for customers that need to minimize AOG time.

# **SPECIFICATIONS**

- \* Size: Two inch standard round (MS28042-1A mount), 4.23" Long
- \* Weight: 0.3 Lbs.
- \* Power: 6 to 55 Volts, 0.075 Amps @ 28V
- \* Dimming: Auto (electric eye) and Manual.
- \* Environmental: DO-160G
- \* TSO: -C43c, -C44c, -C45b, -C47a, -49b, -C55a
- \* Display: 210° Analog and 4-Digits, all backlit
- \* Memory: 1,000 hours, RS232 port (Premium only)

# **FEATURES**

- \* Analog and digital display
- \* Custom marked faceplate
- \* Backlit with auto-dimming (a pin is available for manual dimming)
- \* Built-in warning light and a pin for connecting an external light to alert the pilot the moment a limit is exceeded. *Optional*
- \* Rugged and reliable design (unlike many old needle gauges)
- \* 1,000+ hours of recording memory for trend analysis and logging exceedance (only available on the TR-1 Premium)
- \* RS-232 input and output port to interface with EEC's, FADEC's and other devices
- \* Mapping for unparalleled accuracy
- \* Two Open-Collector (pull-down) Pins for controlling external warning lights or props, 0.1 Ams max, *Optional*
- \* ARINC 429 compatible via the BC-5, Optional

# TR-1-XX (STANDARD)

- \* 1 year warranty.
- \* No Risk, three-month money-back guarantee.
- \* 8130-3 airworthiness approval tag provided.

#### 

\* P-908:----- \$95.00 EGT 8 Probe Harness for a Garrett TPE-331-1 and -2 Turbine Engine. No STC's.



# TR-1-XX-P (PREMIUM)

- \* 3 year warranty.
- \* No Risk, three month money-back guarantee.
- \* 1,000+ hours of recording at 1/3 second per record.
- \* Priority service on warranties and orders.
- \* Free overnight shipping on warranties and orders.
- \* Warranties will be handled by providing an exchange unit.
- \* Spare printed faceplates with your aircraft's markings will be held in stock.
- \* Spare blank units (without faceplates) will be held in stock.
- \* 8130-3 airworthiness approval tag provided.
- \* Exchange the unit(s) for an MVP-50T within one year and get full credit on TR-1's purchased.
- \* TR-1-XX-P:-----\$1,485.00

(fillout the TR-1-XX Worksheet).



# **UBG-16 ULTIMATE BAR GRAPH**

(STC'd and PMA'd)

Sixteen Input Channels. Any channel may be set to display EGT's, CHT's, TIT and/or Oil Temp (digital and bar graph display). Other temperatures & functions will be displayed digitally only. See below for list of other available temperatures or functions. Engine analysis performed automatically with sixteen Pilot Programmable Over-Temp Limits, sixteen Under-Temp Limits, a Differential Limit and a Shock-Cooling Limit. Range for Bars and Scan Rate are also Pilot Programmable. True Peak Detect that eliminates false peak readings. Indicates as each cylinder reaches Peak EGT. Displays Temperature Below Peak EGT for accurate leaning. Fuel/ Air Mixture Profiling. Normalized Mode with Long-Term Memory for Easy Problem Detection and Trend Analysis.

**Specifications:** 2.65" x 2.65" x 6" Depth. 2 1/4" Mount. 22 Oz. Unit. 3.5 Oz for each probe and 6' cable. 1°F Resolution. Accuracy: 1/2%. Plasma display viewable in direct and indirect sunlight. Operates from 7.5 to 35 volts at 1/2 amp.

# PACKAGE PRICES

<b>UBG-16-4-Mem:</b> 4 Cyl. UBG-16 Package w/4 P-110 EGT Probes, 4 P-100 CHT Probes, 6' Cables (uses 8 inputs) and Includes Memory (MUX-8A Data Recorder) with free download software.	 \$1,648	
<b>UBG-16-4G-Mem:</b> 4 Cyl. UBG-16 Package w/4 P-110 EGT Probes, 3 P-100 CHT Probes, 1 P-102 Gasket CHT Probe, 6' Cables (uses 8 inputs) and includes Memory (MUX-8A Data Recorder) w/free download software. Order this package if you have a 4-cylinder engine with a primary CHT instrument already installed.	 \$1,648	
<b>UBG-16-6-Mem:</b> 6 Cyl. UBG-16 Package w/6 P-110 EGT Probes, 6 P-100 CHT Probes, 6' Cables (uses 12 inputs) and includes Memory (MUX-8A Data Recorder) with free download software.	 \$2,098	
<b>UBG-16-6G-Mem:</b> 6 Cyl. UBG-16 Package w/6 P-110 EGT Probes, 5 P-100 CHT Probes, 1 P-102 Gasket CHT Probe, 6' Cables (uses 12 inputs) and includes Memory (MUX-8A Data Recorder) w/free download software. Order this package if you have a 6-cylinder engine with a primary CHT instrument already installed	 \$2,098	

# UBG-16 OPTIONS The UBG-16 features 16 input channels. Any of the following options can be added at any time. Each option uses 1 input channel unless noted otherwise.

<b>UBG-16-Remote:</b> UBG-16 Remote Head option 1.5" deep (case connected to head by 7' of wire) additional charge to any of the above UBG-16 packages (does not use an input channel)	\$145
<b>EGView:</b> EGView Charting Software. Use for analyzing downloaded data. (Does not use an input)	\$125
P-128-XCO-6 OAT or Carb Temp with P-128 Probe (1/4" - 28 thread) & 6' Precision Cable	
P-120-XCO-6 Secondary Oil Temp with P-120 Probe (5/8" - 18 thread) & 6' Cable	
P-111-XCO-6 Secondary TIT or Oil Temp with P-111 Probe (1/8" NPT adjustable depth) & 6' Cable	<b>\$98 ea</b> .
P-112-XCO-6 Secondary TIT or Oil Temp with P-112 Probe (7/16 - 20 thread adjustable depth) & 6' Cable	with UBG-16
P-114-XCO-6 Secondary TIT or Oil Temp with P-114 Probe (1/4" NPT adjustable depth) & 6' Cable	Purchase
FM-Flow-60 Fuel Flow only. For aircraft with engine-driven fuel pumps with up to 350 hp	
FM-Flow-90 Fuel Flow only. For aircraft with 350 to 550 hp OR without an engine-driven fuel pump	\$395
FM-OP Secondary Oil Pressure. Includes PT-100GA Pressure Transducer	
FM-FP Secondary Fuel Pressure. Includes PT-30GA Pressure Transducer	
FM-MP Secondary Manifold Pressure. Includes Pressure Transducer	\$249 ea.
FM-Gyro Gyro Vacuum. Includes Pressure Transducer	3247 eu.
FM-RPM Secondary RPM. Connects directly to the Mag Switch	
FM-VA Secondary Volts/Amps w/S-50 Shunt. 1 input channel for volts and/or 1 for Amps	

# **US-8A ULTIMATE ENGINE ANALYZER**

(STC'd and PMA'd)

Two Displays, 16 Channels (use up to 8 probes for each display). Can measure EGT's, CHT's, TIT, Oil Temp, OAT, Carb. Temp and More. Manual and Automatic (Scan) Modes.

**Singe-Engine Aircraft:** Use left display for EGT and right display for CHT.

**Twin-Engine Aircraft:** Use left display for left engine and right display for right engine.

**Pilot Programmable from the front panel:** Sixteen Over-Temp Limits, Sixteen Under-Temp Limits, Two Differential Limits, Two Shock-Cooling Limits, Scan Rate, and Number of Channels to be Scanned.



**Specifications:** 2 1/4" Mount. 5.35" Depth. 19 Oz. Unit. 3.5 Oz for each probe and 6' cable, 7 Oz for each probe and 20' cable. 1°F Resolution. Accuracy: 1/2%. Viewable in direct and indirect sunlight. Backlit for night operation. Operates from 7.5 to 35 volts at .3 amps.

# SINGLE-ENGINE PACKAGE PRICES

US-8A-4: 4 Cyl. US-8A Package w/4 P-110 EGT Probes, 4 P-100 CHT Probes, 6' Cables (uses 8 inputs)	··· \$1,298
<b>US-8A-4G:</b> 4 Cyl. US-8A Package w/4 P-110 EGT Probes, 3 P-100 CHT Probes, 1 P-102 Piggy-Back CHT Probe, 6' Cables (uses 8 inputs) <b>Order this package if you have a 4-cylinder engine with a primary CHT instrument already installed.</b>	··· \$1,298
US-8A-6: 6 Cyl. US-8A Package w/6 P-110 EGT Probes, 6 P-100 CHT Probes, 6' Cables (uses 12 inputs)	··· \$1,598
US-8A-6G: 6 Cyl. US-8A Package w/6 P-110 EGT Probes, 5 P-100 CHT Probes, 1 P-102 Piggy-Back CHT Probes, 6' Cables (uses 12 inputs) Order this package if you have a 6-cylinder engine with a primary CHT instrument already installed.	··· \$1,598

# TWIN-ENGINE PACKAGE PRICES

US-8A-4-T: 4 Cyl. US-8A Package w/8 P-110 EGT Probes, 8 P-100 CHT Probes, 20' Cables (uses all 16 inputs)	\$2,298
<b>US-8A-4G-T:</b> 4 Cyl. US-8A Package w/8 P-110 EGT Probes, 6 P-100 CHT Probes, 2 P-102 Piggy-Back CHT Probe, 6' Cables (uses all 16 inputs) <b>Order this package if you have a twin 4-cylinder engine with a primary CHT instrument already installed.</b>	\$2,298
US-8A-6-T: 6 Cyl. US-8A Package w/12 P-110 EGT Probes, 4 P-100 CHT Probes, 20' Cables (uses all 16 inputs)	\$2,298

# US-8A OPTIONS The US-8A features 16 input channels. Any of the following options can be added at any time to any unused channel. Each option uses 1 input channel.

P-128-XCO-6 OAT or Carb Temp with P-128 Probe (1/4" - 28 thread) & 6' Precision Cable
P-120-XCO-6 Secondary Oil Temp with P-120 Probe (5/8" - 18 thread) & 6' Cable
P-111-XCO-6 Secondary TIT or Oil Temp with P-111 Probe (1/8" NPT adjustable depth) & 6' Cable
P-112-XCO-6 Secondary TIT or Oil Temp with P-112 Probe (7/16" - 20 thread adjustable depth) & 6' Cable
P-114-XCO-6 Secondary TIT or Oil Temp with P-114 Probe (1/4" NPT adjustable depth) & 6' Cable

**\$98 ea.** with US-8A Purchase



# **SR-8A SMART ENGINE ANALYZER**

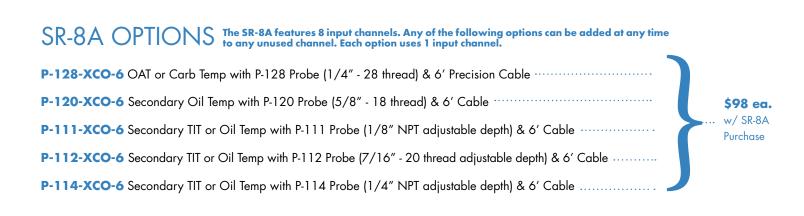
(STC'd and PMA'd)

Large Display. Total of 8 Channels (inputs). Use only the channels you need and save on probe and cable costs. Measures EGT's, CHT's, TIT, Oil Temp, OAT, Carb. Temp and Other, up to 8 channels. Manual and Automatic (Scan) Modes. Automatically finds the hottest EGT or CHT. Factory-set EGT Over-Temp Limit (1650°F). Factory-set EGT Under-Temp Limit (1100°F). Factory-set CHT Over-Temp Limit (500°F). Differential Limit set from back panel at 95°F or 195°F. Selectable Scan Rate and number of channels to be scanned.

**Specifications:** 2 1/4" Mount. 5.35" Depth. 16 Oz. Unit. 3.5 Oz for each probe and 6' cable, 7 Oz. for each probe and 20' cable. 1°F Resolution. Accuracy: 1/2%. Viewable in direct and indirect sunlight. Backlit for night operation. Operates from 7.5 to 35 volts at .3 amps.

# PACKAGE PRICES

SR-8A: SR-8A Instrument Only (no probes or cables)	\$498
SR-8A-4: 4 Cyl. SR-8A Package w/4 P-110 EGT Probes, 4 P-100 CHT Probes, 6' Cables (uses all 8 inputs)	\$1,098
<b>SR-8A-4G:</b> 4 Cyl. SR-8A Package w/4 P-110 EGT Probes, 3 P-100 CHT Probes, 1 P-102 Piggy-Back CHT Probe, 6' Cables (uses all 8 inputs) Order this package if you have a 4-cylinder engine with a primary CHT instrument already installed.	\$1,098
SR-8A-6: 6 Cyl. SR-8A Package w/6 P-110 EGT Probes, 2 P-100 CHT Probes, 6' Cables (uses all 8 inputs)	\$1.098



# FP-5L FUEL FLOW / HORSEPOWER

(STC'd and PMA'd)

The FP-5L is a versatile fuel computer. Displays Gallons per Hour, Gallons Used, Gallons Remaining, Time to Empty, Gallons Needed to Destination, % Horsepower and Two Programmable Low-Fuel Alarms. The standard FP-5L also has one auxiliary channel that can be used to monitor Oil Pressure, Oil Temperature, Fuel Pressure, Manifold Pressure, Vacuum, Volts, Amps, Carb temperature, EGT, CHT, TIT or OAT.

**Specifications:** 2 1/4" Mount. 3.65" Depth. 28 Oz. Kit. Backlit for night operation. Viewable in direct sunlight. Operates from 7.5 to 30 volts at .3 amps.

# **STANDARD FP-5L PACKAGES**



\$688

	4000	
<b>FP-5L-60:</b> Fuel Flow w/HP & GPS input/output. Includes FT-60 Flow transducer (for aircraft with up to 350 HP and an engine-driven fuel pump).	\$778	
<b>FP-5L-90:</b> Fuel Flow w/HP & GPS input/output. Includes FT-90 Flow Transducer (for aircraft with 350 to 550 HP OR without an engine-driven fuel pump).	\$778	
<b>FP-5L-180:</b> Fuel Flow w/HP & GPS input/output. Includes HIGH FLOW FT-180 Flow Transducer (for aircraft with more than 550 HP).	\$1,183	

# **STANDARD FP-5L AUXILIARY CHANNEL OPTIONS**

**FP-5L-Inst Only:** Fuel Flow w/HP & GPS input/output Instrument Only (no transducers)

Any one of the following choices can be added to the FP-5L Aux Channel at any time.

FM-OP Secondary Oil Pressure. Includes PT-100GA Pressure Transducer	
FM-FP Secondary Fuel Pressure. Includes PT-30GA Pressure Transducer	
FM-MP Secondary Manifold Pressure. Includes Pressure Transducer	¢ a ra
FM-Gyro FM-Gyro Gyro Vacuum. Includes Pressure Transducer	\$249 ea.
FM-RPM Secondary RPM. Connects directly to the Mag Switch	
FM-VA Secondary Volts OR Amps (one or the other) w/S-50 Shunt	

# **PRIMARY FP-5L PACKAGES** - MUST specify High/Low Pressure Limits when ordering

FP-5L Instrument Only: Instrument Only (no transducers)	\$788
FP-5L w/FT-60 & Pressure: Includes FT-60 Flow Transducer (for engines up to 350 HP) & PSI Transducer	\$1,073
FP-5L w/FT-60 NO Pressure: Includes FT-60 Flow Transducer (for engines up to 350 HP)	\$878
FP-5L w/FT-90 & Pressure: Includes FT-90 Flow Transducer (for engines with 350 to 550 HP) & PSI Transducer	\$1,073
FP-5L w/FT-90 NO Pressure: Includes FT-90 Flow Transducer (for engines with 350 to 550 HP)	\$878

# **STANDARD FP-5L ACCESSORIES** - May be required for your aircraft

FFDM-1 Fuel Flow Differential Module (for aircraft with a pressure carburetor). Includes FT-60 or FT-90	\$395
flow transducer to measure the returned fuel. Please specify FT-60 or FT-90.	



# **FL-1 AND FL-2 FUEL LEVEL INSTRUMENTS**

(Not STC'd. For TC and STC Holders or Experimental Aircraft)

The FL-1 and FL-2 are fuel level instruments featuring an LED analog display and a digital display. The FL-1 is for single fuel level while the FL-2 is for dual fuel level. They can display in gallons (one or one-half gallon increments), pounds or liters. Since the FL-1 and FL-2 do not incorporate any moving parts (needles, bearings, springs, etc.), there is little to go wrong or wear out. Instrument improvements allow for a new, easier and quicker fuel calibration procedure. The procedure also removes any non-linearity in the tanks and sensors. You may use as few as two calibration points or as many as nine. A New Programmable Fuel Slosh Stabilization feature has been added to increase user customization.

**Specifications:** 2 1/4" Mount, 3.65" Depth, 10 Oz. Unit, Viewable in direct sunlight, Backlit, Operates from 7.5 to 35 volts at .3 amps.

FL-1 - Single Fuel Level

# ALL PACKAGES (WITHOUT PROBES) - \$469

**FL-1CA or FL-2CA:** This model was designed to be used with El's Capacitive Fuel Level Probe (P-300C) from 6" to 20' long. A P-300C/4 Module must be used for probes 6" to 4' long.

**FL-1RA-12 or FL-2RA-12:** This model was designed to be used on a 12-volt system with a resistive fuel level sensor. The fuel level sensor's resistance may increase or decrease as fuel is added to the tank and the maximum resistance must be between 90 and 270 ohms.

**FL-1RA-24 or FL-2RA-24:** This model was designed to be used on a 24-volt system with a resistive fuel level sensor. The fuel level sensor's resistance may increase or decrease as fuel is added to the tank and the maximum resistance must be between 90 and 270 ohms.

**FL-2M:** This model was designed to be used with EI's Magnetic Float Sensor (P-300M). The P-300M is an accurate replacement for a resistive fuel level sensor.







# **R-1 RPM TACHOMETER**

(TSO'd and STC'd as Primary Replacement)

Displays an accurate RPM measurement in digital and analog format. Proprietary algorithms ensure stable yet lightening-quick responses.

Kit Includes: Instrument, wire harness, RC-1 Cap, and an A-102 Adapter plate.

**Specifications:** 2 1/4'' Mount. 3.65'' Depth. Viewable in direct and indirect sunlight. Backlit for night operation. Operates from 7.5 to 30 volts at .3 amps. Instruments may come with labels on the faceplate rather than silkscreened to signify limit markings for your aircraft. An A-102 Adapter is available to fill a 3 1/8'' hole for \$19.50.

Price: .......\$529.00 Order MUST specify range markings.





# **OPT-1 OIL PRESSURE AND TEMPERATURE**

(TSO'd and STC'd as Primary Replacement)

Displays accurate Oil Pressure and Temperature readings. Easily see readings on a large LCD display along with an LED arc for quick-glance analysis.

Kit Includes: Instrument Temp Probe, Pressure Transducer and Wire Harness.

**Specifications:**  $2 \ 1/4''$  Mount. 3.65'' Depth. Viewable in direct and indirect sunlight. Backlit for night operation. Operates from 7.5 to 30 volts at .3 amps. Instruments may come with labels on the faceplate rather than silkscreened to signify limit markings for your aircraft. An A-102 Adapter is available to fill a  $3 \ 1/8''$  hole for \$19.50.

Price: \$598.00 Order MUST specify range markings.

# **M-1 MANIFOLD PRESSURE**

(TSO'd and STC'd as Primary Replacement)

Displays precise Manifold Pressure in both Digital and Analog format. The LED Arc provides a quick reference of the Manifold Pressure operation.

#### Kit Includes: Instrument and Wire Harness.

**Specifications:**  $2 \ 1/4''$  Mount. 3.65'' Depth. Viewable in direct and indirect sunlight. Backlit for night operation. Operates from 7.5 to 30 volts at .3 amps. Instruments may come with labels on the faceplate rather than silkscreened to signify limit markings for your aircraft. An A-102 Adapter is available to fill a  $3 \ 1/8''$  hole for \$19.50.

Options: A-102 Adapter to fill a 3 1/8" hole: \$19.50 for each instrument





# VA-1A VOLTS AND AMPS

(STC'd, and PMA'd)

Provides precision Volts and Amps readings. Offers both a "High Volts" and a "Discharge" warning light. Runs on 12 or 24-volt systems. This model comes with an internal 5-50 shunt.

Price:----- \$399.00

**VA-1A-XX** The VA-1A-xx can be calibrated to match any aircraft external shunt (i.e. 50 amp, 50mV external shunt must use a VA-1A-50).

**Price:** \$399.00 Order must specify shunt value. (shunt sold separately).

**Specifications:** Accuracy: 1%. 2 1/4" Mount. 2.5" Depth. 9 Oz. Unit. Viewable in direct and indirect sunlight. Backlit for night operation. Operates from 7.0 to 40 volts at .1 amp.



**RSVA-3** Remote Switch used to monitor the Left and Right Alternator and Battery Current for Twins. To be used with any external shunt unit. Body  $1" \times 1" \times 1.5"$  depth. Front Panel  $2" \times 1.15$ ." 3 Oz. Unit. STC'd, PMA'd.

Price:-----\$98.00

**5-50** 50 amp, 50mV (100 amp short burst capability) External Shunt. To be used with a VA-1A-50. Size 2" x 1.2" x 1.7" height. 3.5 Oz. Unit.



Price: ..... \$39.00



**5-300** 300 amp External Shunt, to be used with a VA-1A-300. Size 3.25" x 1.75" x 1.75" height. 11.5 Oz. Unit.

Price:-----\$49.00

# SC-5 SUPER CLOCK

(Minor Alteration Installation. No STC required.)

The SC-5 is a fully functional, panel-mounted aircraft clock. Displays Local Time, Zulu Time, 12 & 24-hour formats and an engine timer. Has Up timers and Down timers with programmable alarms. The instrument runs off a 10-year lithium battery that keeps the clock running even if the aircraft battery is removed.

#### Kit Includes: SC-5 and wire harness.

**Specifications:** 2 1/4" Mount. 3.65" Depth. 10 Oz. Unit. Viewable in direct and indirect sunlight. Backlit for night operation. Operates from 7.5 to 35 volts at .3 amps.

Price: \$331.00



# ASC-5A ALTITUDE ALERT SUPER CLOCK

(Minor Alteration Installation. No STC required.)



Has the same great features as the SC-5 but adds additional features for altitude. The ASC-5A can read your Altitude Encoder and displays your current altitude as seen by ATC. Display indicates when your current altitude is above or below your Programmed Assigned Altitude. The unit also has a Level Off Alarm, Deviation Alarm, Programmed Approach Altitude, Wheels Down Altitude or any altitude for which you wish to set an alert. Additionally, the ASC-5A can monitor and display OAT temperatures. This allows it to also display Density Altitude based on your current OAT readings.

**Kit Includes:** ASC-5A, OAT probe, 6' OAT extension cable and wire harness. (Connectors for your Altitude Encoder are not included.)

**Specifications:** 2 1/4" Mount. 3.65" Depth. 10 Oz. Unit. Viewable in direct and indirect sunlight. Backlit for night operation. Operates from 7.5 to 35 volts at .3 amps.

Price: \$550.00

# EGT'S/CHT'S/TIT'S/OAT













# **E-1 OR C-1 SINGLE-CHANNEL EGT OR CHT** (STC'd, TSO'd and PMA'd)

The E-1 is a single-channel EGT and the C-1 is a single-channel CHT gauge. Both instruments are 2 1/4" Mount, 2.5" Depth and 12 Ounces. Sunlight viewable and backlit for night operation.

Kit Includes: Unit, 1 ea 6' Cable, 1 Probe, All Wires and Connectors.

Price: \$329.00

# E-1P, T-1P OR C-1P PRIMARY REPLACEMENT SINGLE CHANNEL (STC'd, TSO'd and PMA'd)

(SIC d, ISO d and PMA d)

Primary replacement single-channel EGT, TIT or CHT instruments with an Over-Temp Light. All are 2 1/4" Mount, 2.5" Depth and 12 Ounces. Sunlight viewable and backlit for night operation.

Kit Includes: Unit, 1 ea 6' Cable, 1 Probe, All Wires and Connectors.

Price: \$369.00 (Order MUST specify Over-Temp Limit and TIT Probe Type, if applicable)

# **EC-1 SINGLE-CHANNEL EGT/CHT**

(STC'd, TSO'd and PMA'd)

Can monitor 1 EGT and 1 CHT. Easily switch between your readings with a front-mounted switch. 2 1/4" Mount, 2.5" Depth and 16 Ounces. Sunlight viewable and backlit for night operation.

Kit Includes: Unit, 2 ea 6' Cables, 1 ea EGT Probe and 1 CHT Probe

Price:----- \$429.00

# E-6 OR C-6 SIX-CHANNEL EGT OR CHT

(STC'd, TSO'd and PMA'd)

This unit allows you to monitor 6 channels of EGT or CHT with a six position switch.

Kit Includes: Unit, 6 ea 6' Cables, 6 Probes and All Wires and Connectors.

Price:----- \$769.00

# E-4 OR C-4 FOUR-CHANNEL EGT OR CHT

(STC'd, TSO'd and PMA'd)

This unit allows you to monitor 4 channels of EGT or CHT with a four position switch.

Kit Includes: Unit, 4 ea 6' Cables, 4 Probes and All Wires and Connectors.

Price:----- \$659.00

# **EC-1P OR TC-1P DUAL-SCREEN PRIMARY REPLACEMENT** (STC'd, TSO'd and PMA'd)

Primary Replacement CHT and EGT (or Primary TIT) with Over-Temp Lights. 3 1/8" Mount, 2.5" Depth and 20 Ounces.

Kit Includes: Unit, 2 ea 6' Cables, 1 EGT or TIT Probe and 1 CHT Probe

# Combination EGT'S, CHT'S, OAT, Carb Temp



MODEL A-1 OAT or CARB. TEMP

(STC'd, TSO'd and PMA'd)

OAT instrument with Ice Zone Warning Light. Or order the instrument to display Carb. Temp.

**Kit Includes:** Unit, 1 ea 6' Cable and 1 OAT Probe.

Price: \$299.00

# **Remote Switches**



# MODEL CA-1 CARB. TEMP & OAT

(STC'd, TSO'd and PMA'd)

Carb. Temp and OAT Instrument with Ice Zone Warning Light.

**Kit Includes:** Unit, 2 ea 6' Cables, 1 Carb. Temp Probe and 1 OAT Probe.

# Price: ...... \$399.00



# MODEL EAC-1 EGT, CHT & OAT

(STC'd, TSO'd and PMA'd)

EGT/OAT/CHT Instrument with Ice Zone Warning Light.

**Kit Includes:** Unit, 3 ea 6' Cables, 1 EGT Probe, 1 OAT Probe and 1 CHT Probe.

#### Price: \$499.00

# RS-4-1S (STC'd and PMA'd)

Upgrades our single temperature instrument to read four channels of EGT **or** CHT. **Price:** \$349.00 (Specify probe type with order.)

# RS-4-25 (STC'd and PMA'd)

Upgrades our dual temperature instrument to read four channels of EGT **and** CHT. **Price:** \$499.00

# **RS-6-1S** (STC'd and PMA'd)

Upgrades our single temperature instrument to read six channels of EGT or CHT. Price: \$469.00

# RS-6-25 (STC'd and PMA'd)

Upgrades our single temperature instrument to read six channels of EGT **and** CHT.





# **Remote Switches**

**RS-8-15** (STC'd and PMA'd) Upgrades our single temperature instrument to read eight channels of EGT **or** CHT.

**Specifications:** Body 1" x 1" x 1.5" depth, Front Panel 2" x 1.15" **Kit Includes:** Unit, 7 ea 6' Cables, 4 Probes.

Price: ...... \$589.00

**RS-12-15** (STC'd and PMA'd) Upgrades our single temperature instrument to read twelve channels of EGT **or** CHT.

**Specifications:** Body 1" x 1" x 1.5" depth, Front Panel 2" x 1.15" **Kit Includes:** Unit, 11 ea 6' Cables, 11 Probes.

Price: ..... \$799.00

**RS-5-1PS** (STC'd and PMA'd) Upgrades any primary TIT/CHT unit to read four channels of EGT **or** CHT

**Specifications:** Body 1" x 1" x 1.5" depth, Front Panel 2" x 1.15" **Kit Includes:** Unit, 4 ea 6' Cables, 4 Probes.

Price: \$589.00 Option: Add \$40 for 4 P-110F FAST Response EGT Probes.

**RS-5-2PS** (STC'd and PMA'd) Upgrades any primary TIT/CHT unit to read four channels of EGT **and** CHT.

**Specifications:** Body 1" x 1" x 1.5" depth, Front Panel 2" x 1.15" **Kit Includes:** Unit, 8 6' Cables, 4 EGT Probes and 4 CHT Probes.

Price: \$589.00 Option: Add \$40 for 4 P-110F FAST Response EGT Probes.

**RS-7-1PS** (STC'd and PMA'd) Upgrades any primary TIT/CHT unit to read six channels of EGT **or** CHT.

**Specifications:** Body 1" x 1" x 1.5" depth, Front Panel 2" x 1.15" **Kit Includes:** Unit, 6 ea 6' Cables, 6 Probes.

Price: \$799.00 Order must specify either EGT or CHT Probes Option: Add \$60 for 6 P-110F FAST Response EGT Probes

# **RS-7-2PS** (STC'd and PMA'd)

Upgrades any primary TIT/CHT unit to read six channels of EGT **and** CHT.

**Specifications:** Body 1" x 1" x 1.5" depth, Front Panel 2" x 1.15" **Kit Includes:** Unit, 12 6' Cables, 6 EGT Probes and 6 CHT Probes.

Price: \$799.00 Option: Add \$60 for 6 P-110F FAST Response EGT Probes.

Probes. RS-4-1, RS6-1: \$75 (No Dealer Discounts) RS-4-2, RS-6-2, RS-7-1, RS-7-2, RS-8-1, RS-12-1: \$98 (No Dealer Discounts)









# EGT / CHT / TIT for Twins

# E-2 OR C-2 DUAL-CHANNEL EGT OR CHT

(STC'd, TSO'd, PMA'd)

**Specifications:** 2 1/4" Mount, 2.5" Depth and 24 Oz. Kit. Accurate to 1/2% with 1 degree resolution. **Kit Includes:** Unit, 2 ea 20' Cables, 2 EGT or 2 CHT Probes and All Wires and Connectors.

Price: \$589.00 Option: Add \$20 for 2 Fast Response EGT Probes.





# EE-1P OR TT-1P OR CC-1P DUAL CHANNEL EGT OR CHT OR TIT

(STC'd, TSO'd, PMA'd)

**Specifications:** 3 1/8" Mount, 2.5" Depth and 28 Oz. Kit. Accurate to 1/2% with a 1 degree resolution. Operates from 7.5 to 35 volts at .1 amp. **Kit Includes:** Unit, 2 ea 20' Cables, 2 Probes and All Wires and Connectors.

Price: \$719.00 (Order MUST specify Over-Temp Limits.) Option: Add \$20 for 2 Fast Response EGT Probes.

# EC-2 EGT AND CHT FOR LEFT AND RIGHT ENGINE

(STC'd, TSO'd, PMA'd)

**Specifications:** 2 1/4" Mount, 2.5" Depth and 2.5 lb kit. Accurate to 1/2% with a 1 degree resolution. Operates from 7.5 to 35 volts at .1 amp. **Kit Includes:** Unit, 4 20' Cables, 2 EGT Probes and 2 CHT Probes.

Price: \$769.00 Option: Add \$20 for 2 Fast Response EGT Probes.





# EC-1PT EGT AND PRIMARY REPLACEMENT CHT

(STC'd, TSO'd, PMA'd)

**Specifications:** Overtemp lights. 3 1/8" Mount, 2.5" Depth and 28 Oz. Kit. Accurate to 1/2% with a 1 degree resolution. Operates from 7.5 to 35 volts at .1 amp. **Kit Includes:** Unit, 2 ea 20' Cables, 1 EGT Probe and 1 CHT Probe.

Price:----- \$698.00

# TC-1PT PRIMARY REPLACEMENT TIT AND CHT

(STC'd, TSO'd, PMA'd)

**Specifications:** 3 1/8" Mount, 2.5" Depth and 2.2lb Kit. Accurate to 1/2% with a 1 degree resolution. Operates from 7.5 to 35 volts at .1 amp. **Kit Includes:** Unit, 2 ea 20' Cables, 1 TIT Probe and 1 CHT Probe.

# Price: \$698.00

(Order **MUST** specify Over-Temp Limits and TIT Probe Type (Hose Clamp, 1/8" NPT, 1/4" NPT or 7/16 x 20).



# AP-7H

# EGT/CHT FUEL RPM M.P. OIL VOLTS START ON

# **ANNUNCIATOR PANEL KIT**

Not STC'd (normally installed as a minor alteration.)

When mounted in front of the pilot, the bright LED's give a quick warning of any out-of-limit condition without having to scan the instrument panel.

**Specifications:** The unit must be connected to the following El instruments: US-8A or SR-8A or UBG-16, FP-5L and/or FL-2, R-1, M-1, and OPT-1. A control switch will dim or turn off the warning LED's. Simple to install (requires only 8 ea. 1/2" holes to mount). Connect to a small 3" x 2" x 1" Control Box tie wrapped to a wire bundle under the instrument panel. Operates at .3 amps.

Size: 5.3" x .9", 10 Oz. Kit, Operates on a 12 or 24-volt system.

Kit Includes: Annunciator Panel, Control Box and all wires and connectors.

Price:-----\$195.00



# AL-1(X) - CHROME ANNUNCIATOR LIGHT

Not STC'd (Normally installed as a minor alteration.)

(X) = "R" (Red), "Y" (Yellow), "B" (Blue), "G" (Green) or "O" (Orange). The AL-1 makes an excellent indicator light for displaying boost pump on, gear status, power on, flags, etc. Also, it can be used as a remote warning light for any El instrument featuring an external warning line. The AL-1 is more attractive, operates on less power and is smaller than the old-fashioned indicator lights. The AL-1 has a service life of over 1000 times that of incandescent bulbs.

**Specifications:** Mounts in a 5/16" hole.

**Size:** .4" diameter x 1" depth. Operates on a 12 or 24-volt system. Comes with 32" leads.

Price: ......\$19.50



# **Annunciator Panels and Lights**



The Voice Annunciator (AV-17) can provide from one to seventeen verbal warnings through your headset, reducing the need to constantly scan instruments. The AV-17 ends the need to constantly scan instruments. It also eliminates concern about missing an alarm at a critical moment. The instant a monitored alarm occurs, the Voice Annunciator will chime in the headset and a pleasant voice will announce a phrase, such as: "Check Oil Pressure," or "Check Altitude," etc.

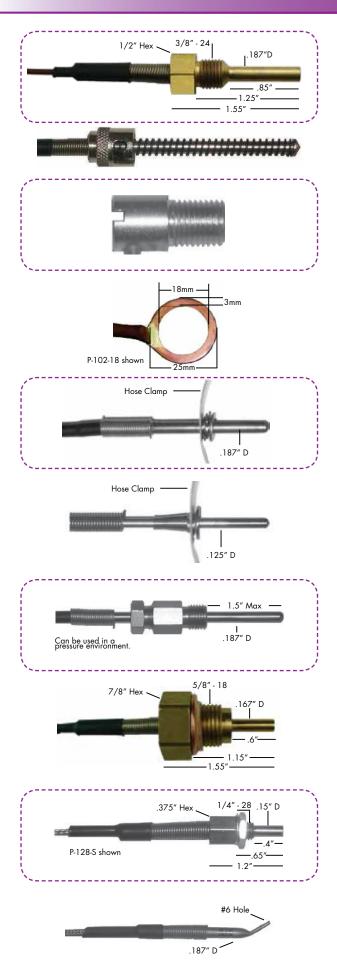
The AV-17's voice alarm in the headset provides an instant and clear understanding of what's going on in the cockpit without the hassle of having to scan instruments, decipher functions, interpret readings or translate confusing bongs, buzzes or beeps.

The AV-17 connects to the headset through your Audio Panel or Intercom or it may be connected directly to your headset. The AV-17 receives most of its warning signals from any one or more of El's instruments featuring a warning light. However, other alarm inputs can be received from any warning device that drives a horn or light. It isn't necessary to activate all seventeen of the AV-17's warnings. A "Check Bus Voltage" warning is built into each AV-17. Further voice alarms can be activated as El's instruments are added to the panel.

The AV-17 is compact. A  $4.1" \times 2.6" \times 1.7"$  Control Box tie wraps under the instrument panel. Also, there is a small  $1" \times 1"$  Control Panel that mounts on the aircraft instrument panel. The Control Panel allows you to turn the Voice Annunciator on or off. Also, it allows you to acknowledge and thereby deactivate any active alarm for either 1 minute or 10 minutes. The AV-17 voice alarms are activated by pulling the appropriate control line to ground (0 volts).

#### AV-17 Price: \$485.00

**AVI-1 Price:** \$19.50 (This module allows a positive voltage to activate one AV-17 control line.)



# P-100 - CHT PROBE

Screw-in Type, Standard with most kits. Can be used in a pressure environment. 700°F Max.

Price: ...... \$94.00

# P-101 - CHT PROBE

Military Bayonet Type, 1/4 turn locking for quick removal. To be used with the A-101 Adaptor, 700°F Max. Price: \$99.00

# A-101 - CHT ADAPTOR

3/8" - 24, To be used with the P-101 CHT Probe. **Price:** \$12.00

P-102-18: CHT Probe, 18 mm. Gasket Type, 700°F Max.
 P-102-14: CHT Probe, 14 mm Gasket Type, 700°F Max.
 P-102-12: CHT Probe, 12 mm Gasket Type, 700°F Max.
 P-102-3/8: CHT Probe, 3/8" Piggy-Back Gasket Type, 700°F Max.
 Price: \$94.00

# P-110 - EGT/TIT PROBE

Hose Clamp Type, Used with 13/64" Hole. Standard with most kits. Weight: 1.6 oz.

Price: ..... \$94.00

# FAST RESPONSE P-110 - EGT/TIT PROBE

P-111: TIT PROBE, 1/8" NPT, with Adjustable Depth. Price: \$99 P-112: TIT PROBE, 7/16" - 20, with Adjustable Depth. Price: \$99 P-114: TIT PROBE, 1/4" NPT, with Adjustable Depth. Price: \$99 P-111 & P-114 Available in FAST Response Style with a .125" D tip. Price: \$109/ea

# P-120 - OIL TEMP PROBE

Can be used in a pressure environment, 700°F Max. Weight: 2.5 oz. **Price:** \$94.00

# P-128 - OAT/CARB TEMP PROBE

FAST Response Exposed Tip, uses a precision connector, 700°F Max.

# P-128-S - SEALED TIP TEMP PROBE

For use in pressure environments, uses a precision connector, 700°F Max. **Price:** \$94.00

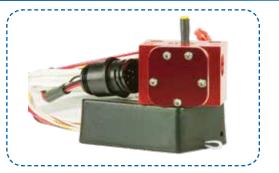
# P-104 - UNIVERSAL PROBE

Used to measure surface temperatures, 700°F Max. **Price:** \$94.00

# FFDM-1 - FUEL FLOW DIFFERENTIAL MODULE

# Price:-----\$395.00

Used with our FP-5 or FP-5L to accommodate a pressure carburetor with a fuel return line back to the fuel tank. Please specify FT-60, FT-90 or FT-180 Flow Transducer. This should be the same type of transducer that was installed with the FP-5 or FP-5L.





# Price:----\$295.00

To be used with engine-driven fuel pumps only. Up to 350 HP engines. Red anodized aluminum body, 1/4" female NPT, .6 to 70+ GPH, .6 PSI drop at 30 GPH, 2.3 PSI drop at 60 GPH, K-Factor approximately 68,000, 5.3 Oz.

# FT-90 - FUEL FLOW TRANSDUCER (GOLD CUBE) Price:-----\$295.00

For 350 to 550 HP engines, or gravity-feed engines. Gold anodized aluminum, 1/4" female NPT, 3 to 125+ GPH, .05 PSI drop at 20 GPH, .2 PSI drop at 40 GPH, K-Factor approximately 33,800, 5.3 Oz.

# FT-180 - FUEL FLOW TRANSDUCER (BLACK CUBE) Price: \$495.00

Black anodized aluminum body, #8 male flare fittings, 5 to 250+ GPH, .23 PSI drop at 60 GPH, .92 PSI drop at 120 GPH, K-Factor approximately 22,400, 5.3 Oz. The EI FT-180 (Black Cube) Flow Transducer does not require the IU-1 Foxboro Interface Unit.

# **PT-30GA - PRESSURE TRANSDUCER**

# Price:----- \$195.00

1/8" NPT Male, 0 to 40 PSI, Max. Over Pressure 90 PSI, Burst Pressure 120 PSI, Shock 100g, Material 316L SS, 8 Oz.

# **PT-100GA - PRESSURE TRANSDUCER**

Price:-----\$195.00

1/8" NPT Male, 0 to 120 PSI, Max. Over Pressure 300 PSI, Burst Pressure 400 PSI, Shock 100g, Material 316L SS, 8 Oz.

# **PT-300GA - PRESSURE TRANSDUCER**

# Price:----- \$195.00

1/8" NPT Male, 0 to 300 PSI, Max. Over Pressure 900 PSI, Burst Pressure 1200 PSI, Shock 100g, Material 316L SS, 8 Oz.

# PT-30005 - PRESSURE TRANSDUCER

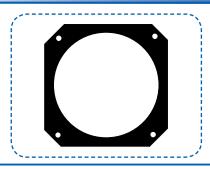
Price: \$250.00 1/8" NPT Male, 0 to 3000 PSI, Max. Over Pressure 9,000 PSI, Burst Pressure 10,000 PSI, Shock 100g, Material 316L SS, 8 Oz



# IU-1- FOXBORO INTERFACE UNIT

# Price:----- \$173.00

Electronics in a lumpy cable used to interface a Foxboro or Flow Technologies Transducer to the FP- 5(L). K-Factor for a Foxboro Transducer is approx. 33,800. The IU-1 is not needed for El's FT-180 (Black Cube) Flow Transducer.



# A-102 - ADAPTOR PLATE - Price: \$19.50

Makes a 2 1/4" El Instrument look excellent in a 3 1/8" mount, Black Powder Coated Aluminum (matches our instruments).

# 

Use this Adaptor Plate to mount the UBG-16 in a 3 1/8" hole.

# **XO-6** - Price: \$39.00

6' Extension Cable with Overlap (OLC-1) connectors on each end.

**XCO-6 - Price:** \$39.00 6' Extension Cable with circular to Overlap (OLC-1) connectors. Used on UBG-16, US-8A and SR-8A.

**XDO-6 - Price:** \$39.00 6' Extension Cable with D-sub pin to Overlap (OLC-1) connectors. Used on MVP-50 and CGR-30.

**XO-20 - Price:** \$69.00 20' Extension Cable with Overlap (OLC-1) connectors.

**XDO-20** - Price: \$69.00

20' Extension Cable with D-sub pin to Overlap (OLC-1) connectors. Used on MVP-50 and CGR-30.

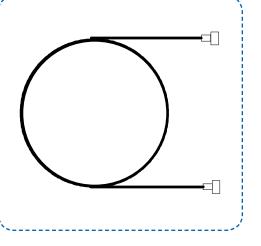
**Note:** Extension Cables can be ordered to custom lengths for \$1.60 (retail) per foot for each foot over the standard lengths of 6' and 20' shown above. Please allow a minimum of 2 weeks for custom cable lengths to be shipped.

# **CP-1** - LED Intensity Control Pot and Electronics

# Price: ----- \$39.00

Controls the intensity of the UBG-16 (Plasma Display), green LED's on R-1, M-1, OPT-1, FL-2, FP-5(L) and other EI instruments. This unit can be connected to any one or all of these instruments at the same time. It provides linear control of the intensity of the green LED's for low ambient light or night operation. Mounts in a 1/4'' hole. Operates on a 12 or 24-volt system.

**Note:** The CP-1 is a low current, high impedance control pot with offsets and gains designed to control the intensity of El's LED's & Plasma displays ONLY. Not appropriate for other applications.





# S-50 SHUNT

Price: \$39.00

50 amp, 50mV (100 amp capability) External Shunt. To be used with a VA-1A-50. Size 2" x 1.2" x 1.7" height. 3.5 Oz. Unit.





# **S-300 SHUNT**

# FIELD TEST DEVICES

#### 

Field test devices provide an excellent way of verifying and troubleshooting system wiring and instrument operation for various E.I. Instruments.

# FCD-FF: FUEL FLOW SIGNAL

Outputs a variable fuel flow signal (50Hz to 350 Hz, 9V Sq Wave).

#### FCD-FP: FUEL/OIL PRESSURE SIGNAL

Outputs a variable pressure signal (0 to 100+ PSI, 0-50 mV).

# FCD-RPM: RPM FIELD SIGNAL

Outputs a variable RPM signal (800 to 2800 RPM, 40 to 140Hz, 18V pulse).

# FCD-CFL: CAPACTIVE FUEL LEVEL SIGNAL

Outputs a variable capacitive fuel level signal (300 to 5 KHz, 9V Sq Wave).

# FCD-RFL: RESISTIVE FUEL LEVEL SIGNAL

Outputs a variable resistive (0-250 ohms) fuel level signal.



# **NIST TRACEABLE FIELD CALIBRATION DEVICES** FOR E.I. TURBOPROP INSTRUMENTS

Price:----- \$250.00

The following Field Calibration Devices (FCD's) provide a calibrated signal that may be used to verify the calibration of a given E.I. instrument. This can be useful when performing FAA flight tests or engine performance verification runs. The FCD's are traceable to NIST and come with calibration paperwork.

# FCD-T-NIST: TEMPERATURE SIGNAL

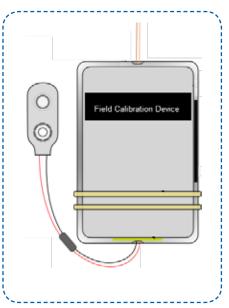
Outputs a NIST calibrated temperature signal around 778°C (1400°F). May be used to verify calibration of any Electronics International ITT, TOT, TIT, CHT, Oil Temp or other temperature instrument.

# FCD-N1/N2-NIST: TACH GENERATOR SIGNAL

Outputs a NIST calibrated Tach Generator signal at 4200 RPM (70Hz). May be used to verify calibration of any Electronics International N1 or N2 instrument.

# FCD-PRESS-NIST: PRESSURE SIGNAL

Outputs a NIST calibrated pressure signal that simulates a PT-30GA, PT-100GA, PT-300GA and PT-3000S pressure transducer. May be used to verify calibration of any Electronics International Torque, Oil Press, Fuel Press, Hyd Press or other pressure instrument that use the above listed transducers. This unit tests the intruments pressure channel, not the pressure transducer.

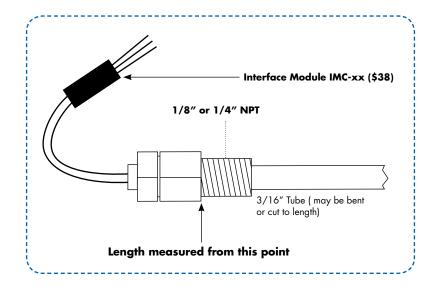


# Accessories

# P-300C: CAPACITIVE FUEL LEVEL PROBE WITH ACCESSORIES

The P-300C is a TSO'd fuel level sensor assembled from a 3/4" aluminum pipe with an aluminum center electrode and a 3/4" NPT boss attached to one end. The electronics (P-300C Interface Module) are located externally from the probe, the probe was designed to fit in a 3/4" NPT. Coupler and Guides (included with the probe), are intended to be molded into a fiberglass fuel tank. You may wish to use other mounting methods appropriate for your fuel tanks. The probes may be ordered from 6" to 20' in length. A P-300C/4 Divide by 4 Interface module will be included at no charge for probe lengths that require one. Ordering the correct length is **recommended**, however you may cut the probes to a shorter length than ordered. Call El for cutting instructions.

(Specify Length 6" to 20') Please allow a minimum of 3 weeks for your order to be shipped.



# P-300C-MINI-1/8: 1/8" NPT CAPACITIVE FUEL LEVEL PROBE

3/4″ O.D. Aluminu

Interface Module IMC-xx (\$38)

P-300C Fuel Probe

# **P-300C-MINI-1/4:** 1/4" NPT CAPACITIVE FUEL LEVEL PROBE

The P-300C-Mini is assembled from a 3/16" stainless steel tube with an insulated wire as the center electrode and a 1/8" NPT or 1/4" NPT boss attached to one end. The electronics (P-300C-Mini Interface Module) are located externally from the probe. The probe may be bent or cut to length in the field. The probe can be ordered from 2" to 72" in length. A P-300C/4 Divide by 4 Interface module will be included at no charge for probe lengths that require one. Ordering the correct length is **recommended.** 

Guid

3/4" NPT Coupler

Length measured from this point.

Price: \$249.00, + additional packaging and shipping charges due to length. (Specify Length 2" to 72") Please allow a minimum of 3 weeks for your order to be shipped.

# **P-300M MAGNETIC FLOAT SENSOR**

The P-300M is a TSO'd fuel level sensor designed by El to replace a resistive sensor. The P-300M works off magnetics and is an accurate and reliable sensor. It is not affected by vibration, corrosion, wear, varnish build up, poor wiper tension or any of the many other problems affecting resistive sensors. The P-300M will **only** work with El instruments. The float travel must be specified. If an existing sensor is to be replaced, ship your old sensor to El.

#### Price:----- \$395.00

Add \$375 if custom plate is needed (one-time charge).







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