



CGR-30C

Configuration Worksheet



Shows Two Arc Gauges



Shows All Strip Gauges

Download this file, fill it out and then save it. Include it with your order.

General Info:

There are a number of CGR-30C configurations to accommodate both single and twin engine aircraft.

Single Engine Aircraft Configurations:

1. The -30C could be used with the CGR-30P to provide all of the aircraft functions missed by the -30P. In this configuration the -30C would share the EDC-33P (Engine Data Converter) with the -30P.
2. The -30C could be used as a standalone gauge, replacing your existing RPM gauge and provide most of the other function in the aircraft (replacing the old cluster gauge). The current engine analyzer could be maintained in the aircraft or the -30C could display a single EGT and CHT providing a complete package in a single gauge. In this configuration the -30C would be purchased with an EDC-33P in the kit.

Twin Engine Aircraft Configurations:

1. The -30C could be used with the two CGR-30P's to provide all of the aircraft functions missed by the -30P's. This configuration would provide side-by-side gauges and would replace the old cluster gauges. In this configuration the -30C would share the EDC-33P's (Engine Data Converter) with the -30P's.
2. The -30C could be used as a standalone gauge, replacing your old cluster gauges. In this configuration the -30C would be purchased with an EDC-33P in the kit.

Aircraft Information:		Example
Customer Name		Peter Pilot
Customer Phone		555-555-5555
Customer E-mail		peterp@gmail.com
Aircraft Make Model		Cessna 182R
Aircraft Tail Number		N5555H
Engine Mfg Model		Continental O-470U
# of Cylinders Max HP		6 230 HP
Standard wire length shipped with all instruments is 8 feet.	<input type="checkbox"/> Adjust to 12 feet cable length (4 cyl: \$200.00/6 cyl: \$300.00) <input type="checkbox"/> Adjust to 20 feet cable length (4 cyl: \$400.00/6 cyl: \$600.00)	
<input type="checkbox"/> Include a Certificate of Conformance (\$10.00)		
<input type="checkbox"/> Include an 8130-3 (\$195.00). Can add up to two weeks to lead time.		

The functions displayed on the CGR-30C should not be duplicated on the CGR-30P. All data must be verified for accuracy and must match the POH/AFM and any changes required by any AD's, Supplements or STC's. Also, limit and marking information must be cross-checked against the instruments mounted in the aircraft panel.

A configuration file for a TSO'd and/or STC'd CGR-30C can **only** be generated or changed by Electronics International Inc. If any of the information provided on this form is wrong, there may be a reprogramming fee to change the configuration.

Important Information: The information in this document must be verified for accuracy and match the aircraft's hardware and POH/AFM marking requirements. **If you have not ordered the probes and transducers to support the functions you have listed in this document, your order will be delayed. Also, if the data supplied in this document is incomplete or missing, your order will be delayed.** Our mission is to get your order shipped as soon as possible.

Pick Your Functions:

Eight functions are included in the kit. This will take-up all the Strip Gauge locations on the Main Screen. Almost any function can be monitored by the CGR-30C. If you need more functions, you can purchase them and place them on the Secondary Screen. Also, at the bottom of the Main Screen are two locations for digital only gauges. The Volts and Amps functions would be appropriate for these locations. These are gauges that do not require an analog presentation.

Also included in the kit are annunciators. There are 6 at the top of the Main Screen and any of the 6 locations on the Secondary Screen can be configured as an annunciator. Check that you have channels on the EDC-33P to support your selections (see appendix A).

Select the 8 functions to be displayed on the Main Screen (these are included in the kit). Later in this document you will select annunciators. Also, you will select the functions for the two digital only gauges at the bottom of the screen and any additional functions to be placed on the Secondary Screen. These functions may have charges associated with them.

Note: Selecting a Left and Right function for a twin counts as two functions.

Function	8 Functions (free)		More Functions (\$)	Price	LOC	LOC	AN LOC	AN LOC
	Single / Left	Twin / Right						
RPM (Arc Gauge)								
M.P. (Arc Gauge)								
Fuel Flow (may be an Arc)								
Fuel Pressure (aircraft w/ fuel pump)								
Main Fuel Level (Main Screen)								
Outboard Fuel Level (Main Screen)								
Aux/Tip Fuel Level (can be on secondary screen if fuel is transferred)								
Oil Pressure				\$250				
Oil Temp				\$98				
TIT				\$98				
Volts				N/C				
AMPS				\$39				
Vac				\$150				
Carb Temp				\$98				

Function	8 Functions (free)		More Functions (\$)	Price	LOC	LOC	AN LOC	AN LOC
	Single / Left	Twin / Right						
OAT in 'F				\$98				
OAT in 'C				\$98				
Hydraulic Pressure				\$250				
G-Meter (does not have peak hold feature)				\$495				
Horsepower				N/C				
IAT				\$98				
CDT				\$98				
Cabin Pressure				\$150				
Cabin Differential Pressure				\$150				
CO Detector (not included, No Discounts)				\$495				
Local Time				N/C				
Zulu Time				N/C				
Engine Time (must monitor RPM)				N/C				
Tach Time (must monitor RPM)				N/C				
Flight Time (must monitor RPM)				N/C				
EGT (list additional channels below)				\$98				
CHT (list additional channels below)				\$98				
2nd AMPS Function (includes FM-VA-3)				\$195				
Other 1:								
Other 2:								
Other 3:								
Other 4:								
Other 5:								
Other 6:								

Place Your Functions on the Main Screen:

The CGR-30C has three layouts for the Main Screen, eight horizontal Strip Gauges or a combination of arc and strip gauges. Fill-out only one of the Main Screen configurations. The following Rules will help guide you.

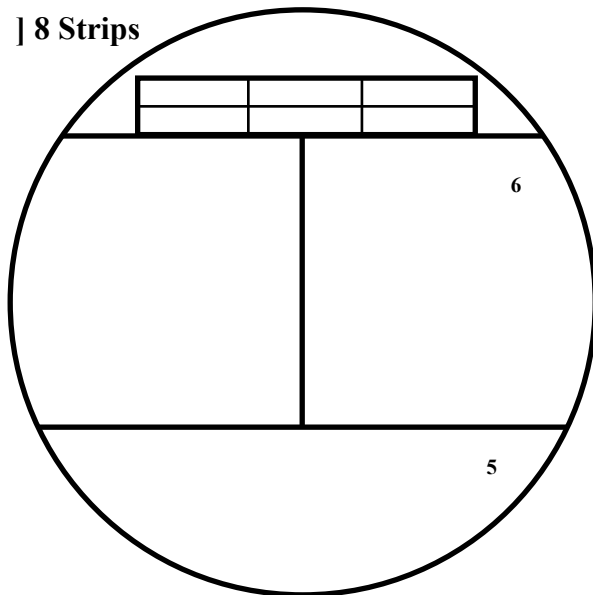
Rules:

1. All primary functions that have red and/or yellow limits have priority and should be placed on the Main Screen. If the Main Screen is full of primary functions, then the remaining functions can be placed on the Secondary Screen, but they must be annunciated on the Main Screen (via one of the six annunciators provided at the top of the Main Screen).

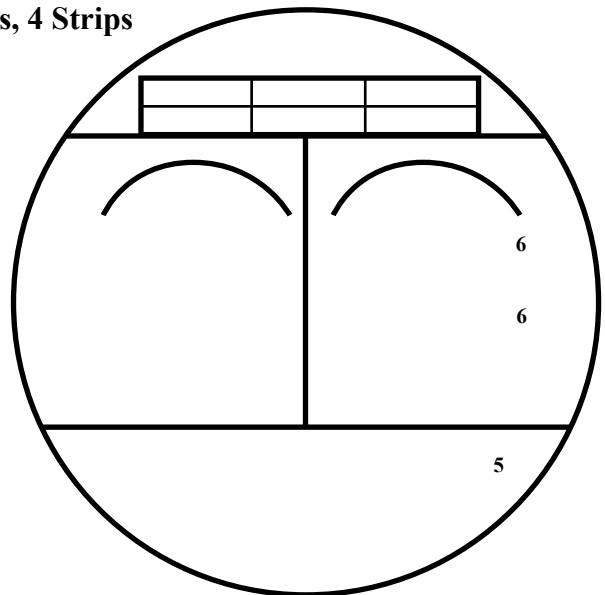
2. Arc Gauges are reserved for RPM, M.P. or Fuel Flow. Locations for MP and RPM should follow the aircraft controls from Left to Right.
3. Gauges for Fuel Level Tanks that feed the engine must be placed on the Main Screen. An Aux Fuel Level that only transfers fuel to another tank can be placed on the Main or Secondary Screen.
4. There are 6 characters (including spaces) available for Strip and Arc Gauges.
5. There are two Digital Only Gauges provide at the bottom of the Main Screen (they are also displayed at the bottom of the Secondary Screen). Normally Volts and Amps are displayed in these locations, but any functions that does not have a red or yellow operating range can be placed here. There are 5 characters (including spaces) available for the Digital Only Gauges.
6. Gauge locations and names are subject to approval and will most likely be changed by E.I. to meet standardization requirements.

Select one Main Screen configurations and add Function Names:

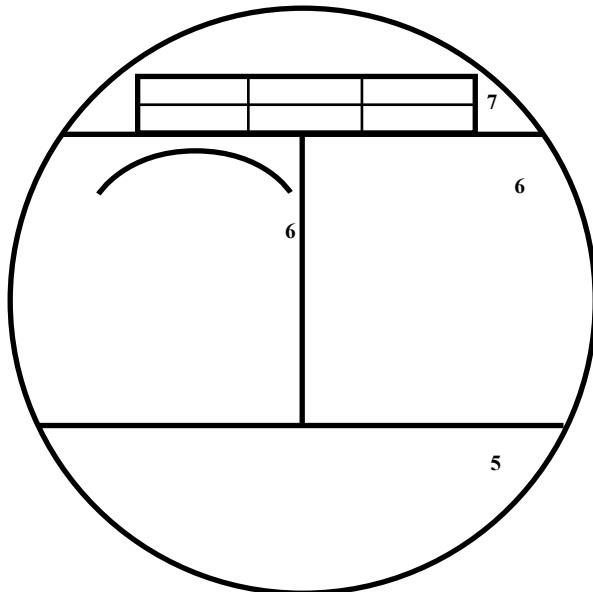
☐ 8 Strips



☐ 2 Arcs, 4 Strips



☐ 1 Arc, 6 Strips



The CGR-30C gets all its signals via an EDC-33P. If you are using the same EDC-33P that supplies the signals to the EDC-30P, make sure you have the channels available on the EDC-33P to support your selections. An overview of the EDC-33P channels is provided in appendix A.

Please Note: If you have not ordered the probes and transducers to support the functions you have listed in this document, your order will be delayed. Also, if data supplied in this document is incomplete or missing, your order will be delayed.

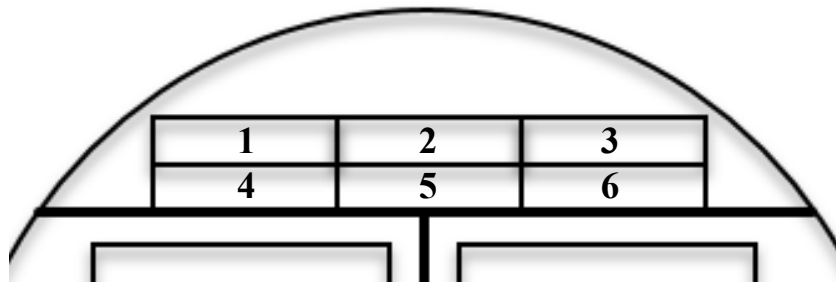
Place Your Annunciators on the Main Screen:

At the top of the Main Screen are six Annunciators. These Annunciators are generally directly associated with six primary functions (ones that have red and/or yellow operating ranges) on the Secondary Screen. We will place these Annunciators on the Main Screen.

If your configuration has less than six primary functions on the Secondary Screen, you have the option of assigning those available non-primary Annunciators to external functions. This could be Canopy, Baggage Door, Landing Lights, Rotating Beacon, Nav Lights, Pitot Heat, etc.

Provide the following information for each external Annunciator:

1. For each Annunciator, write in the Displayed Name. Only 7 characters (including spaces) are allowed. Annunciators require a VI-221 interface module which will be provided in the kit.
2. In the space for "ON Color" enter the color when the Annunciator is ON.
3. In the space for space for "ON State V." enter the voltage level for an ON STATE. Some entries may be: Ground, 0V, Open, 14V, 28V or Bus.
4. In the space for space for "OFF State V." enter the voltage level for an OFF STATE. Some entries may be: Ground, 0V, Open, 14V, 28V or Bus.



Location	Name	On Color	On State Voltage	Off State Voltage
1				
2				
3				
4				
5				
6				

The CGR-30C gets all its signals via an EDC-33P. If you are using the same EDC-33P that supplies the signals to the EDC-30P, make sure you have the channels available on the EDC-33P to support your selections. An overview of the EDC-33P channels is provided in appendix A.

Place Your Functions on the Secondary Screen:

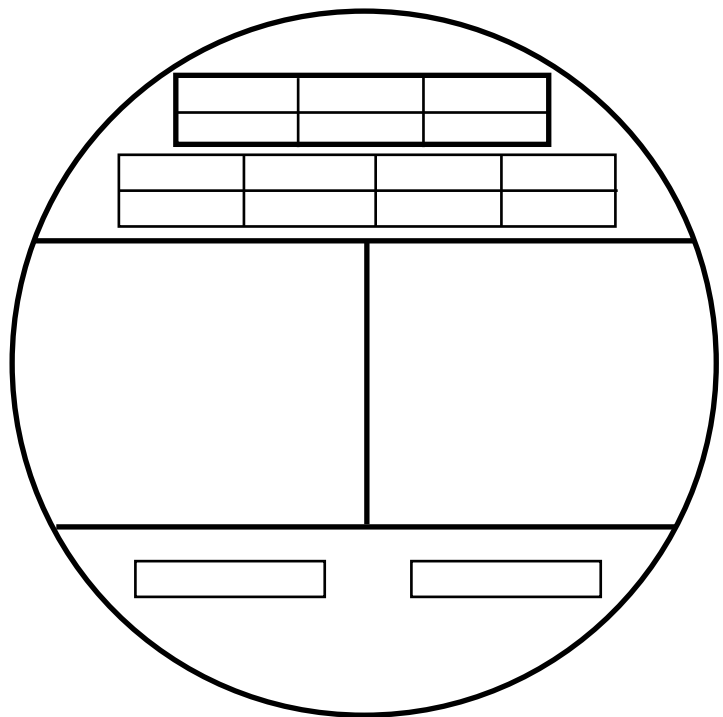
On the Secondary Screen you may have up to six horizontal Strip Gauges. If a primary gauge for the aircraft is to be displayed on the Secondary Screen (one that has red and/or yellow range markings), it must be annunciated in one of the six Annunciators located at the top of the screen. These annunciators also show on the Main Screen. There are 6 characters (including spaces) available for Strip Gauges.

Below the 6-Anunciators are 8-Main Screen Annunciators. These Annunciators are associated with the eight functions on the Main Screen. The two Digital Gauges at the bottom of this screen also show on the Main Screen.

Fill-out the six horizontal Strip Gauges:

The CGR-30C gets all its signals via an EDC-33P. If you are using the same EDC-33P that supplies the signals to the EDC-30P, make sure you have the channels available on the EDC-33P to support your selections. An overview of the EDC-33P channels is provided in appendix A.

Please Note: If you have not ordered the probes and transducers to support the functions you have listed in this document, your order will be delayed. Also, if data supplied in this document is incomplete or missing, your order will be delayed.



Dimming Control:

Traditional instruments with incandescent bulbs do not require backlight for day operations. For night operation, backlighting is required. The CGR-30C requires backlight for daylight operation and reduced backlighting for night operation. This is the opposite of what is required for traditional instruments.

If you plan on connecting the CGR-30C backlight control line to a rheostat that is also controlling traditional instruments, select Option A.

If your plan on connecting the CGR-30C backlight control line to a rheostat that is also controlling flat panel displays that require backlighting during the day, select Option B.

- ☐ **Option A:** The CGR-30C will dim as the rheostat voltage is increased.
- ☐ **Option B:** The CGR-30C will dim as the rheostat voltage is decreased.
- ☐ **Option C: Add Automatic Dimming Control Sensor (ADC-1)** photosensor-based dimming control. Automatically controls the brightness of the CGR-30C based on light environment.
Additional \$79.95.

Marking Information Required:

Provide the following information for only the functions selected.

Tachometer:

Markings: ☐ Markings are not specified in the POH/AFM.

(Low)	Range	(High)	Color	Example
				2000 2500 Green
				2700 9990 Red

☐ My engine is equipped with an Electronic Ignition. If this is the case, we need the pulses per revolution and voltage levels of the RPM signal for each set of spark plugs:

Example: Left: 2 pulses/rev, 0-5 pulse, Right: standard mag.

☐ Not Common: My aircraft is equipped with a Geared Engine to the Prop. Please supply the Geared Engine Ratio for your provided RPM limits noted above:

Example: 0.67 : 1 (prop spins 2/3 speed of the engine)

☐ Not Common: My aircraft is equipped with a Geared Engine, Tachometer will be:

☐ Prop RPM ☐ Engine RPM

Manifold Pressure:

This function uses the PT-30ABS Pressure Transducer.

Units:

Markings: ☐ Markings are not specified in the POH/AFM.

Pressure requirements over 32"Hg require a different transducer for an additional charge.

(Low)	Range	(High)	Color	Example
				15.0 25.0 Green

☐ Use the MP transducer that comes standard PT-30ABS (0 to 32" Hg). No additional charge.

☐ Replace the MP transducer with the PT-60ABS (0 to 70" Hg). Additional charge of \$ 49.95.

☐ Replace the MP transducer with the PT-200ABS (0 to 210" Hg). Additional charge of \$ 74.95.

If the MP tube is a hard line, you may need a flare fitting to interface to the Vacuum Pressure Transducer.

☐ Add a 1/4," 37 degree Flare Fitting to the kit (\$19.95 ea.).

EGT: Units:

EGT limits are normally not specified. Select the EGT Probe to be used:

- ☐ P-110F, Fast Response, Hose Clamp (standard in the kit)
- ☐ P-110R, Long life, Hose Clamp (standard in turbo applications)

CHT: Units:

CHT Markings: ☐ Markings are not specified in the POH/AFM.

Aircraft that do not have cowl flaps normally do not have limits for the CHTs.

(Low)	Range	(High)	Color	Example
				00 450 Green
				450 9999 Red

The following CHT Probes are available. Select one of the following:

- ☐ P-100, Screw-in, 3/8" – 24 (standard in the kit)
- ☐ My engine is equipped with Tanis Heaters. Note: P-102-3/8 probes will be provided in the kit.
- ☐ P-101, Military Bayonet with an A-101 CHT Adaptor. Up charge: \$12.00 each probe.
- ☐ P-101, Grounded with an A-101 CHT Adaptor. Up charge: \$12.00 each probe.
- ☐ P-102-18, Gasket, 18mm
- ☐ P-102-14, Gasket, 14mm
- ☐ P-102-12, Gasket, 12mm
- ☐ P-102-3/8, 3/8" Piggy-Back Gasket
- ☐ P-103, Metric, M10x1.5

Fuel Flow:

Select one of the following:

- ☐ This aircraft is a gravity feed system with no fuel pump.
- ☐ This aircraft has a Fuel Pump.
- ☐ This aircraft has a Fuel Pump and a pressure carburetor with a fuel return line. You will need to purchase a FFDM-1, Differential Flow module (\$395.00).

Notes:

- a) Also available is a FFAM-1, Fuel Flow Add Module. This module adds the fuel flow for two Flow Transducers (\$395.00).
- b) Primary Fuel Flow (this is normally derived from metered fuel pressure at the flow divider):
- 1) If any limit on your current primary fuel flow gauge is marked in pressure only, the CGR-30C must also display metered fuel pressure to replace this gauge.
 - 2) If all the limits on your current primary fuel flow gauge are marked in flow (even though pressure may also be shown), the CGR-30C Fuel Flow system will replace this gauge and Metered Pressure does not need to be measured

Fuel Flow Markings: <input type="checkbox"/> Markings are not specified in the POH/AFM.			Units:
(Low)	Range (High)	Color	Example
			No limits.

Fuel Pressure:

Select one of the following:

- ☐ Fuel Pressure is monitored at the fuel pump.
- ☐ This is a turbocharged aircraft and fuel pressure is referenced to the Upper Deck. You must purchase the PT-30GA Pressure Transducer (\$195.00) to measure the Upper Deck.
- ☐ Fuel Pressure is monitored at the flow divider.
- ☐ This is a gravity feed system with no fuel pump. Note: Fuel Pressure cannot be monitored.
- ☐ Fuel Pressure is not monitored.

Markings: <input type="checkbox"/> Markings are not specified in the POH/AFM.			Units:
(Low)	Range (High)	Color	Example
			0.0 9.0 Red
			9.0 14.0 Green
			14.0 999.0 Red

Fuel Level: Units:

The CGR-30C can provide accurate fuel level readings for straight and level flight. By calibrating the CGR-30C to the fuel tank, nonlinearity in the tank's shape and nonlinearity in the Fuel Level Sensor can be compensated. The CGR-30C cannot correct for inconsistent or non-repeatable readings from a Resistive Fuel Level Sensor. Unfortunately, many Resistive Fuel Level Sensors (and in some cases even new units) exhibit these problems. If you find inconsistent or inaccurate fuel level readings (due to a defective Resistive Fuel Level Sensor), you must have the sensor replaced or repaired. Read the "Important Notice" in the CGR-30C Operating Instructions. **Fuel Level Sensors are not provided in the kit.** The following are some E.I. probes and modules available:

P-300C: This is 3/4" OD capacitive probe (\$395.00).

P-300C Mini: This is a 3/16" OD capacitive probe (\$298.00).

P-300M: Magnetic Float Sensor, replacement for Resistive Sensor (\$395.00).

RFLM-4: Provides the current for up to 4 resistive fuel level sensors.

FLAM -4: Monitors up to 4 capacitive fuel level probes in one tank and outputs the signal to the EDC-33P as single tank (\$475.00).

Important Notice: Only use the RFLM-4 for a Resistive Probe, otherwise damage will occur.

For each Fuel Level Probe we require the following information:

Displayed Name	Main Left (Probe Type)	Tank Configuration
6 Characters	Select only one: <input type="checkbox"/> Resistive Probe (an RFLM-4 will be provided) <input type="checkbox"/> E.I. P-300M magnetic probe. <input type="checkbox"/> E.I. P-300C capacitive probe. <input type="checkbox"/> Penny Cap Capacitive Probe (select only one below): <input type="checkbox"/> The Signal Conditioner box provides the signal. <input type="checkbox"/> The signal will come from the probes. <input type="checkbox"/> Other Probe _____ <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Variable Frequency Empty Freq: _____ Full Freq: _____ Powered by: <input type="checkbox"/> Bus Power </div> <div> <input type="checkbox"/> Variable Voltage Empty Voltage: _____ Full Voltage: _____ <input type="checkbox"/> EDC Power </div> </div>	Full Useable Fuel Level: _____ Select only one: <input type="checkbox"/> This tank can be selected to feed the engine. <input type="checkbox"/> Fuel is only transferred from this tank to another. Note: All displayed Fuel Levels must be in the same units-of-measure.

Displayed Name	Main Right (Probe Type)	Tank Configuration
_____ 6 Characters	Select only one: <input type="checkbox"/> Resistive Probe (requires a RFLM-4) <input type="checkbox"/> E.I. P-300M magnetic probe. <input type="checkbox"/> E.I. P-300C capacitive probe. <input type="checkbox"/> Penny Cap Capacitive Probe (select only one below): <input type="checkbox"/> The Signal Conditioner box provides the signal. <input type="checkbox"/> The signal will come from the probes. <input type="checkbox"/> Other Probe _____ <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Variable Frequency Empty Freq: _____ Full Freq: _____ </div> <div> <input type="checkbox"/> Variable Voltage Empty Voltage: _____ Full Voltage: _____ </div> </div> Powered by: <input type="checkbox"/> Bus Power <input type="checkbox"/> EDC Power	Full Useable Fuel Level: _____. Select only one: <input type="checkbox"/> This tank can be selected to feed the engine. <input type="checkbox"/> Fuel is only transferred from this tank to another.

Displayed Name	Outboard Left (Probe Type)	Tank Configuration
_____ 6 Characters	Select only one: <input type="checkbox"/> Resistive Probe (requires a RFLM-4) <input type="checkbox"/> E.I. P-300M magnetic probe. <input type="checkbox"/> E.I. P-300C capacitive probe. <input type="checkbox"/> Penny Cap Capacitive Probe (select only one below): <input type="checkbox"/> The Signal Conditioner box provides the signal. <input type="checkbox"/> The signal will come from the probes. <input type="checkbox"/> Other Probe _____ <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Variable Frequency Empty Freq: _____ Full Freq: _____ </div> <div> <input type="checkbox"/> Variable Voltage Empty Voltage: _____ Full Voltage: _____ </div> </div> Powered by: <input type="checkbox"/> Bus Power <input type="checkbox"/> EDC Power	Full Useable Fuel Level: _____. Select only one: <input type="checkbox"/> This tank can be selected to feed the engine. <input type="checkbox"/> Fuel is only transferred from this tank to another.

Displayed Name	Outboard Right (Probe Type)	Tank Configuration
_____ 6 Characters	Select only one: <input type="checkbox"/> Resistive Probe (requires a RFLM-4) <input type="checkbox"/> E.I. P-300M magnetic probe. <input type="checkbox"/> E.I. P-300C capacitive probe. <input type="checkbox"/> Penny Cap Capacitive Probe (select only one below): <input type="checkbox"/> The Signal Conditioner box provides the signal. <input type="checkbox"/> The signal will come from the probes. <input type="checkbox"/> Other Probe _____ <input type="checkbox"/> Variable Frequency <input type="checkbox"/> Variable Voltage Empty Freq: _____ Empty Voltage: _____ Full Freq: _____ Full Voltage: _____ Powered by: <input type="checkbox"/> Bus Power <input type="checkbox"/> EDC Power	Full Useable Fuel Level: _____. Select only one: <input type="checkbox"/> This tank can be selected to feed the engine. <input type="checkbox"/> Fuel is only transferred from this tank to another.

Displayed Name	Aux / Tip Left (Probe Type)	Tank Configuration
_____ 6 Characters	Select only one: <input type="checkbox"/> Resistive Probe (requires a RFLM-4) <input type="checkbox"/> E.I. P-300M magnetic probe. <input type="checkbox"/> E.I. P-300C capacitive probe. <input type="checkbox"/> Penny Cap Capacitive Probe (select only one below): <input type="checkbox"/> The Signal Conditioner box provides the signal. <input type="checkbox"/> The signal will come from the probes. <input type="checkbox"/> Other Probe _____ <input type="checkbox"/> Variable Frequency <input type="checkbox"/> Variable Voltage Empty Freq: _____ Empty Voltage: _____ Full Freq: _____ Full Voltage: _____ Powered by: <input type="checkbox"/> Bus Power <input type="checkbox"/> EDC Power	Full Useable Fuel Level: _____. Select only one: <input type="checkbox"/> This tank can be selected to feed the engine. <input type="checkbox"/> Fuel is only transferred from this tank to another.

Displayed Name	Aux / Tip Right (Probe Type)	Tank Configuration
_____ 6 Characters	Select only one: <input type="checkbox"/> Resistive Probe (requires a RFLM-4) <input type="checkbox"/> E.I. P-300M magnetic probe. <input type="checkbox"/> E.I. P-300C capacitive probe. <input type="checkbox"/> Penny Cap Capacitive Probe (select only one below): <input type="checkbox"/> The Signal Conditioner box provides the signal. <input type="checkbox"/> The signal will come from the probes. <input type="checkbox"/> Other Probe _____ <input type="checkbox"/> Variable Frequency <input type="checkbox"/> Variable Voltage Empty Freq: _____ Empty Voltage: _____ Full Freq: _____ Full Voltage: _____ Powered by: <input type="checkbox"/> Bus Power <input type="checkbox"/> EDC Power	Full Useable Fuel Level: _____ Select only one: <input type="checkbox"/> This tank can be selected to feed the engine. <input type="checkbox"/> Fuel is only transferred from this tank to another.

Oil Pressure: Units:

This function uses the PT-100GA Pressure Transducer.

Markings: <input type="checkbox"/> Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			0 25 Red
			25 90 Green
			100 9999 Red

Oil Temperature: Units:

This function uses the P-120 Oil Temp Probe.

Markings: <input type="checkbox"/> Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			0 65 Yellow
			65 200 Green
			200 240 Yellow
			240 9999 Red

TIT: Units:

Markings: ☐ Markings are not specified in the POH/AFM.

(Low) Range (High)	Color	Example
		0 1650 Green
		1650 9999 Red

Select the probe type:

- ☐ P-111, 1/8" NPT (w/ 6' cable).
- ☐ P112, 7/16-20 (w/ 6' cable).
- ☐ P114, 1/4" NPT (w/ 6' cable).
- ☐ P-110, Hose Clamp (w/ 6' cable).

Vacuum Pressure: Units:

If markings are not listed in the POH/AFM, we suggest using Green 4.5 to 5.5. This function uses the PT-05Diff Pressure Transducer. If the vacuum tube is a hard line, you may need a flare fitting.

- ☐ Add a 1/4," 37 degree Flare Fitting to interface to the Vacuum Pressure Transducer (\$19.95 ea.)

Markings: ☐ Markings are not specified in the POH/AFM.

(Low) Range (High)	Color	Example
		4.5 5.5 Green

Amps:

Measurement of: ☐ Battery Current ☐ Alternator Current

Normally Amps do not have limits specified. A 100 Amp shunt is provided in the kit (if amps is selected as one of eight free functions) or the CGR-30C can be connected to the aircraft's existing shunt. To do this the value of the existing shunt must be provided. See buy-ei.com and look under VA-1A Downloads for help on determining the value of your existing shunt. Select one of the following:

☐ Use the 100 Amp Shunt that comes with the system (no charge if Amps is selected as one of the eight free functions, otherwise an additional \$39 charge applies).

☐ Use the 300 Amp Shunt that comes with the system (no charge if Amps is selected as one of the eight free functions, otherwise an additional \$49 charge applies).

☐ The aircraft's Existing Shunt will be used, Value is _____ Amps at _____ mV.

Markings: ☐ Markings are not specified in the POH/AFM.

(Low)	Range	(High)	Color	Example
				4.5 5.5 Green

2nd Amps:

Measurement of: ☐ Battery Current ☐ Alternator Current ☐ Other _____

This function is an additional \$195 and includes the FM-VA-3 module. The EDC-33P has only one channel to monitor current however with the FM-VA-3, when connected to one EDC-33P temperature channel, allows three additional current measurements. If markings are not specified in the POH/AFM, write "No Limits". The CGRs can be connected to the existing shunt. *If you will using an existing shunt, the shunt value must be provided.* Select one of the following:

☐ Use the 100 Amp Shunt that comes with the FM-VA-3 module.

☐ Use the 300 Amp Shunt that comes with the FM-VA-3 module.

☐ The aircraft's Existing Shunt will be used, Value is _____ Amps at _____ mV.

Markings: ☐ Markings are not specified in the POH/AFM.

(Low)	Range	(High)	Color	Example
				4.5 5.5 Green

Volts: The voltage limits are set by E.I. Select one of the following:

☐ 12-Volt System.

☐ 24-Volt System.

Carb Temp: Units:

If markings are not listed in the POH/AFM, we suggest using Blue, 10 to 39°F and Green for all other areas. Some very old carburetors do not have the port for the Carb Temp Probe drilled out. This port can be drilled and tapped. The P-128, 1/4-28 fast response temp probe is used to measure Carb Temp.

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			-99 10 Green
			10 39 Blue
			39 9999 Green

Hydraulic Pressure: Units:

This function uses the PT-3000S Pressure Transducer (3000 psi max).

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			1000 2000 Green

Cabin Pressure: Can only be displayed in InHg.

This function uses the PT-30ABS module.

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			0 18.6 Yellow
			18.6 999.9 Green

Cabin Differential Pressure: Units:

This function uses the PT-05Diff module.

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			0 4.0 Green
			4.0 9999 Yellow

Induction Air Temperature (IAT): Units:

This function uses the P-128 Temperature Probe.

Markings: [] Markings are not specified in the POH/AFM. Example shows no limits.			
(Low)	Range	(High)	Color
			No limits.

Compressor Discharge Temperature (CDT): Units:

This function uses the P-128 Temperature Probe.

Markings: [] Markings are not specified in the POH/AFM. Example shows no limits.			
(Low)	Range	(High)	Color
			No limits.

Carbon Monoxide: Measured in ppm.

This Function requires an RS232 Port on the CGR. The CO Guardian Option is \$495.00. With this option only one EDC can be connected to the CGR. When placed on the secondary screen the red and yellow limits may be annunciated. If markings are not specified in the POH/AFM, we recommended the following limits.

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			0 25 Green
			25 75 Yellow
			75 9999 Red

G-Meter:

The G-Meter function provides a real time g-force display on the CGR-30C. The CGR-30C does not provide a peak-hold function, but the g-force readings are recorded for the entire flight. To capture the g-forces for all phases of the flight with no gaps, set the “Data Sample Rate” to 0.3 seconds. The G-Meter option can be used to capture g-forces in slow flight, hard landings, turbulence, hard pull-ups, steep turns, aerobatic maneuvers, stalls or spins. When placed on the secondary screen, the red and yellow limits may be annunciated.

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			-9999 -1.5 Red
			- 1.5 3.8 Green
			3.8 9999 Red

Other Function 1:

Other function as defined in the function section found on page 4.

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			0 25 Green
			25 75 Yellow
			75 9999 Red

Other Function 2:

Other function as defined in the function section found on page 4.

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			0 25 Green
			25 75 Yellow
			75 9999 Red

Other Function 3:

Other function as defined in the function section found on page 4.

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			0 25 Green
			25 75 Yellow
			75 9999 Red

Other Function 4:

Other function as defined in the function section found on page 4.

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			0 25 Green
			25 75 Yellow
			75 9999 Red

Other Function 5:

Other function as defined in the function section found on page 4.

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			0 25 Green
			25 75 Yellow
			75 9999 Red

Other Function 6:

Other function as defined in the function section found on page 4.

Markings: [] Markings are not specified in the POH/AFM.			
(Low)	Range	(High)	Color
			0 25 Green
			25 75 Yellow
			75 9999 Red

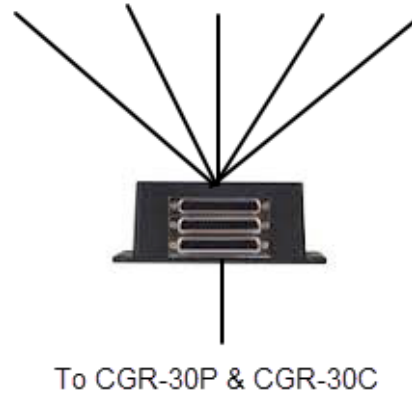
Appendix A: EDC-33P Overview

The EDC-33P (Engine Data Converter, “EDC”) converts all of the engine and aircraft system signals into serial data. This data is transmitted to the CGR display via one wire. The EDC reduces the wire bundle to the instrument panel by over 100 wires.

There are three 37-pin D-sub connectors that interface the EDC to the various probes, transducers and modules. The EDC’s Temperature, Pressure and Fuel Level inputs can be used to monitor voltage outputs from almost any transducer. In this way almost any function can be displayed on the CGR. Up to two EDC’s can be connected to a CGR display. This significantly increases the total number of functions that can be displayed on the CGR.

In most cases the CGR-30C will be connected to an existing EDC-33P that will also be driving a CGR-30P. Make sure you have sufficient channels on the EDC-33P to support all the functions and annunciators you will be displaying on the CGR-30C. The channels available on an EDC are as follows:

RPM, MP, Pressure, Temp, Levels, Flow, etc.



These Channels can be used for various functions or annunciators:

- 17 – Temp Channels: Maybe used to monitor any voltage or thermocouple.
- 6 – Pressure Channels: Maybe used to monitor any voltage (very high input impedance).
- 4 – Fuel Level Channels: Maybe used to monitor any voltage.

These Channels are dedicated to specific functions:

- 2 - RPM Channels: Used only to monitor right and left mags.
- 1 - Volt Channel: Used only to monitor volts.
- 1 - Amp Channel: Used only to monitor Amps
- 1- Fuel Flow Channel: Used only to monitor Fuel Flow.

- * Be sure you have ordered the hardware to support all the functions listed in this document.
- * Check that all range and configuration information is complete and accurate.

**FAILURE TO SIGN THIS DOCUMENT WILL RESULT IN AN
INCOMPLETE FORM AND WILL DELAY YOUR ORDER**

I (the undersigned) have entered and verified all the limits, markings and aircraft configurations listed in this worksheet to be correct and taken from the information in the aircraft's POH/ AFM which includes any changes mandated by any AD's, Supplements and STC's. When necessary, I have checked with my FAA certified mechanic to insure all of the data listed above is correct.

I understand there is important safety information in the Installation and Operating Instructions that must be read before installing the CGR-30C and flying the aircraft.

Completed by: ☐ Owner ☐ Pilot ☐ Technician ☐ Other _____

Completed By Printed Name

Completed By Signature

Date

Hand signature or Encrypted Digital signature required.