DYNA I CONTROLLER

General

The DYN1-10744 controller for the DYNA 2000, 2500 and 7000 Power Flow 38 actuators is an all solid-state design which results in a fast, stable engine response to speed or load changes. The controller measures PROPORTIONAL (amount of offspeed), INTEGRAL (time of offspeed) and DERIVATIVE (rate of change of offspeed) to ensure optimum performance. In addition, the controller has a dual gain feature which enables the gain to be reduced by 20%. (See wiring diagram on the back side.) The gain change can be achieved either through a manual switch or from an automatic relay that senses oil pressure, engine temperature, etc. This feature allows for very stable engine operation at various load levels.

The controller electronics are conformally coated to provide resistance against oil, water and dust. Mounting holes are provided on the control board for ease of panel installation. Set up of the controller is very simple since there are only speed and gain adjustments.

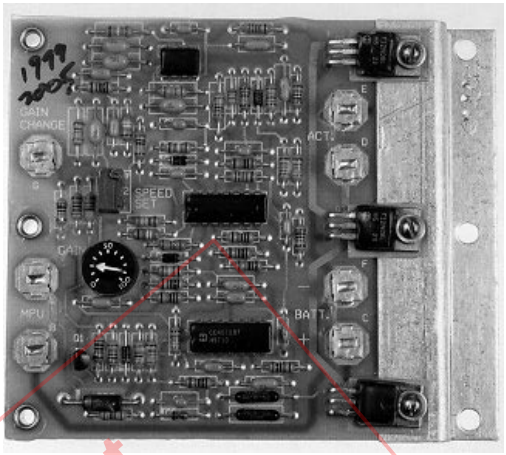
Standard Features

- All electric
- Mounts in any position
- High reliability
- Temperature stable
- Compatible with gas or diesel engines

Failsafe

The DYNA Governor has an internal FAILSAFE circuit that instantly reacts to:

- Interruption of the DC power to spring return actuator to minimum fuel position.
- Loss of speed reference signal to spring return the actuator to minimum fuel position.



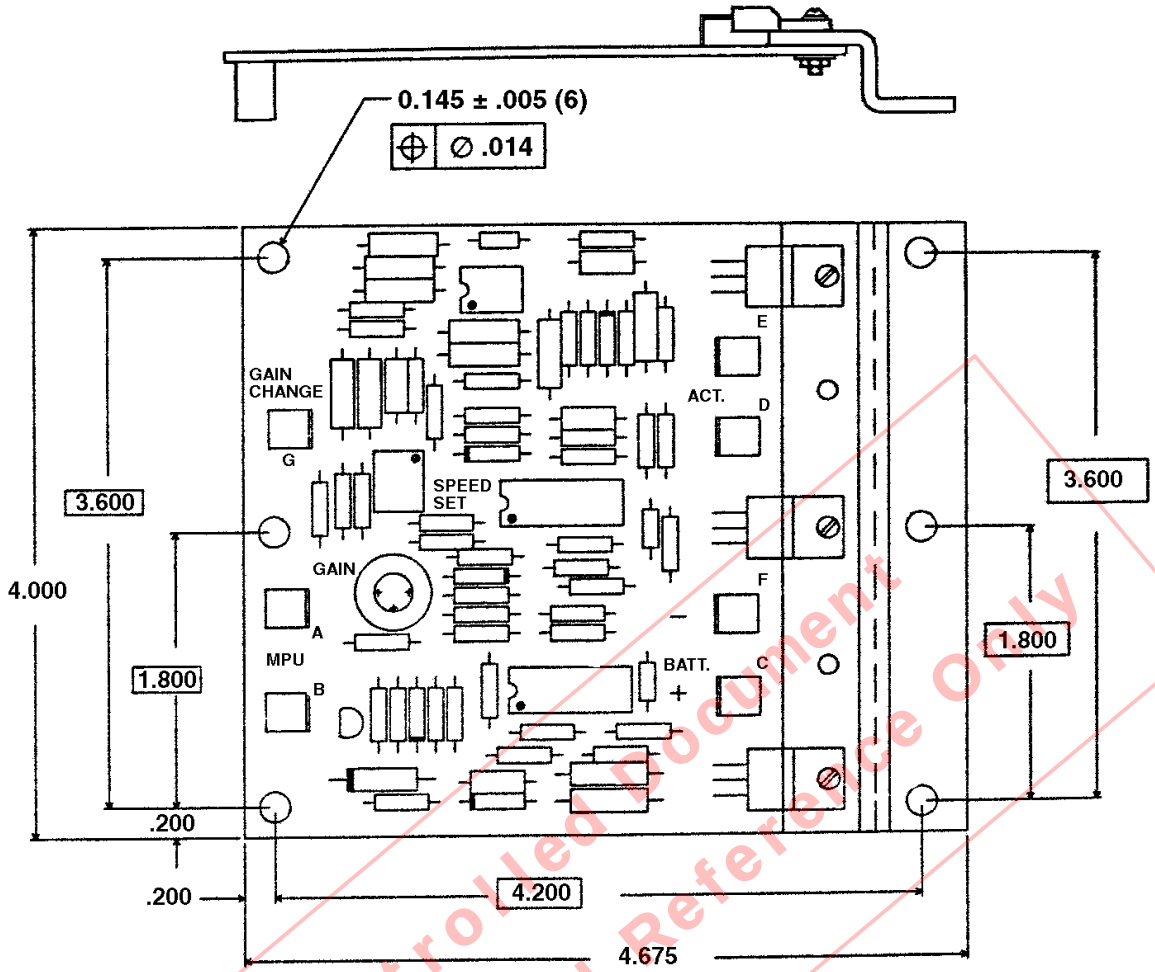
Controller Specifications

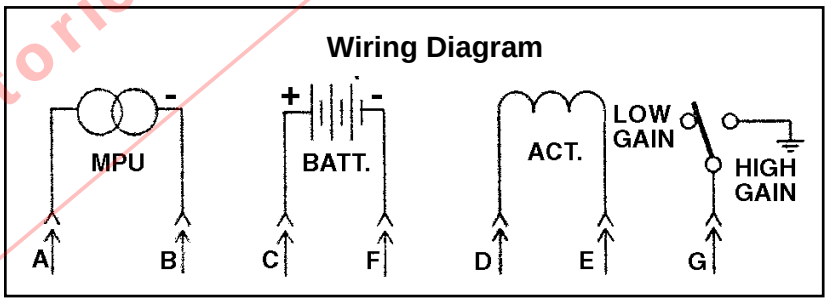
Max. Output Current in Amperes @ 12 VDC		6.0
Max. Output Current in Amperes @ 24 VDC		5.0
Weight	**Pounds**	.222
	Kilograms	.101
Operating Voltage		12 VDC ± 20%
Ambient Operating Temperature		-40° to +180° F (-40° to +85° C)
Sealing		Oil, water and dust resistant
Connections		1/4 faston male
Input Signal Frequency from Mag Pickup		Input Signal Frequency in Hertz = Engine RPM x number of gear teeth on flywheel / 60
Input Signal Voltage From Mag Pickup		2.5 VAC RMS minimum during cranking
Steady State Speed Band		± 0.25%
Controller Adjustments		Gain and Speed

Speed Sensing

The DYNA all-electric governor requires a frequency signal to read engine speed. Typically, a hole is drilled and tapped in the flywheel housing perpendicular to the crankshaft. A magnetic pickup is inserted into the flywheel housing for sensing the teeth on the ring gear.

Installation Dimensions





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— NOTE —

Barber-Colman believes that all information provided herein is correct and reliable and reserves the right to update at any time. Barber-Colman does not assume any responsibility for its use unless otherwise expressly undertaken.

— CAUTION —

As a safety measure, the engine should be equipped with an independent overspeed shutdown device in the event of failure which may render the governor inoperative.