

GOV-10 Enhancements

In May, 2006 a variety of enhancements were incorporated into the GOV-10 product starting with Serial Number 1471. These included a new Terminal Program V2.0 for use with GOV PCB Firmware Version 2.0 (imbedded firmware in the governor PCB). Any unit returned to Altronic and received after May 1, 2006 has been upgraded to incorporate these features. This upgrade is a firmware “download” to the PCB that is only available at the Altronic factory. The major feature in this enhancement is called **AutoZero (AZ)** for Pressure Sensors and Flow, with an additional feature termed **SCFR Start Control Option**.

Overview of the Auto-Zero Function

Some Superior engines have very low fuel manifold pressures for startup, often as low as .15psi. Due to unavoidable sensor drift that is attributed to temperature and atmospheric pressures, the **AZ** function allows the sensors to automatically zero themselves once the GOV returns to a READY state and zero RPM is sensed. As long as the pressure sensor reading is **LESS THAN 2.5psi** when the engine stops, the **AZ** function, when set to “ON”, will zero the transducer. With this new feature upgrade, all pressure sensors, as well as Flow, can be individually set to **AZ**. The Terminal Program version 2.0 is used once the GOV has been programmed with this feature (V2.0 firmware). The Display Module can also be used to access these **AZ** settings. Before turning the **AutoZero** “ON”, the sensors should be manually “zeroed”. **For details, refer to the GOV Operating Manual FORM GOV OM 04-06.**

Overview of SCFR Start Control

There are now two modes of Start Control available in version 2.0 units: the traditional FMP mode, and the new **SCFR** start control mode (selected as noted in section 15.12). In FMP Start Control Mode the known FMP for start is programmed and, once in Start Mode, the unit ramps the FMP up as determined by the value programmed in the RampFMP (typically .10psi/second). In **SCFR Start Mode**, which controls the measured fuel flow per revolution to a target value for starting, the GOV will increase or decrease the flow of fuel to the engine depending on the RPM. This can be tuned to avoid flooding or lean misfire during starting. This feature provides another method to address hard starting Superior engines. Field trials of this feature have been limited since the simultaneous release of the **AZ** feature has been successful in addressing the low FMP requirements of these applications.

Additionally, an adjustable output filter (mA.Damp) has been added to both analog outputs, which can be used to add stability to the current loop output signal. **See section 18.0 of the Operating Manual for details.**

Please take advantage of the new **AutoZero** functions in these governors, especially on the FMP for Superior or other engines that start at very low pressures.

The GOV Operating Manual, FORM GOV OM 04-06 is available at www.altronicinc.com.