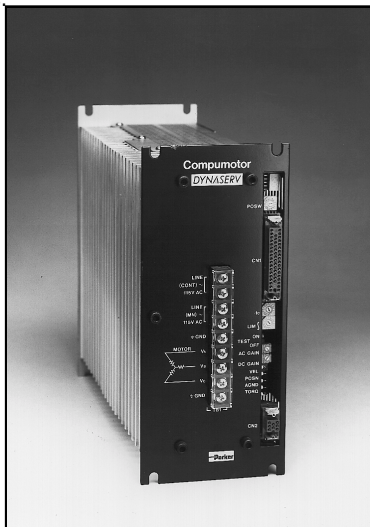
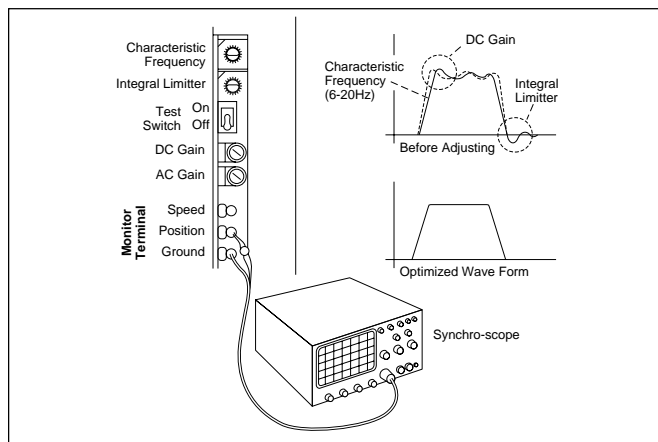


LED Diagnostics

A seven-segment LED is mounted on the front panel of both the DR and DM Series drives to display the normal/abnormal status of the motor and drive. The following is a summary of the display codes.



Servo Compensation



Servo systems require adjustment to optimize the motor performance in the specific system environment. Tuning the Dynaserv while in the position control mode, requires the adjustment of just three parameters.

The position control system is adjusted while in the Test Mode with the actual load attached to the motor. Turning on the test switch at the front panel causes the drive to generate a 2.5 Hz square wave position signal. The actual motor position can be monitored by connecting a scope to the position monitor output on the front panel. As in the figure, the tuning parameters are adjusted until the waveform is optimized. After the tuning is complete, turn off the test switch and the system is ready for operation. If a scope is not available there is a procedure for tuning without a scope in the system user guide.

Characteristic Frequency (fc)

The value of this switch represents system bandwidth. This gain

	Normal status Servo Off
	Normal status Servo On
	Overspeed warning Servo Off
	Overspeed warning Servo On
	RAM Error (Drive in need of repair)
	Encoder Error—not receiving pulses Check cabling, encoder malfunction
	Control power supply error Connect problem (may need repair)
	Counter overflow warning—position error is greater than 32,768 steps
	ROM Error (Drive in need of repair)
	Main power supply failure—burnt fuse Check cabling, power and fuse
	CPU Stop (Drive in need of repair)
	Watchdog timer error—illegal interrupt, computation overflow
	Power amp error—overvoltage, motor short phase-to-phase or phase-to-ground
	Overload condition Average current exceeded.

will effect rise time and system responsiveness. Too large a value will cause excessive overshoot and ringing, while too small a value will result in a sluggish, unresponsive system.

Integral Limiter (ILIM)

The value of this switch represents the limit of the digital integrator during servo compensation. The larger the switch setting, the larger the limited value. With a smaller limited value the settling time will be decreased, but if the setting is too low, the motor output torque is limited.

DC Gain (DC)

This variable resistor sets the DC Gain adjustment from 0.5 to 110. The DC Gain should be set as high as possible without causing the system to go unstable. The DC Gain will help dampen out ringing and over-shoot.

Integrate Direct Drive Servo Systems Into Your Next Application. Call 1-800-358-9070 Today.