

# Chapter 17

## Specifications

**(Revision 3, April 2006)**

<b>ACCURACY</b>	<b>Vibration Amplitude</b> +/-5%, 0-10 IPS
	<b>Frequency Range (Model 2020)</b> 0 -10K Hz per channel, simultaneous or 0 - 10K Hz single channel
	<b>Frequency Range (Model 2020 TURBO and Model 2020 HR)</b> 0-12K Hz per channel, simultaneous or 0 – 20K Hz single channel
	<b>Tachometer Inputs</b> +/- .3%, 100-10,000 RPM
<b>POWER SUPPLY</b>	<b>Type (Lead Acid)</b> Camcorder-Type Battery, Model RB 85 or equivalent (12 V, 2.3 Amp hour internal lead acid battery.)
	<b>Type Nickel Metal Hydride (NiMH)</b> 12 V, 4.5 Amp hour internal Nickel Metal Hydride (NiMH) battery
	<b>Operation Time</b> 8 -10 hours approximately
	<b>Voltage</b> 12 V DC Battery or 14-28 V DC ships power
	<b>Charging Time (Lead Acid Battery)</b> approximately 2 hours <b>Charging Time (NiMH Battery)</b> 2 to 4 hours on internal smart charging circuit
<b>PHYSICAL</b>	<b>Height</b> 9.3"
	<b>Width</b> 7.5"
	<b>Depth</b> 4.4"
	<b>Weight</b> 4.8 lbs.
<b>AC INPUT</b>	The data acquisition system is capable of measuring AC values from 0.1 volts to 2.048 volts peak.
<b>UNCONDITIONED TACHOMETER INPUT</b>	Tachometer signal processing electronics are capable of adjusting the full-scale input range to handle any available sensor for measuring speed. Adjustment of the tachometer conditioning electronics is performed automatically by the microprocessor and requires no user intervention. The voltage level used as a reference for detection of the start of the revolution can be adjusted from 120mV to 5 volts. The tachometer circuitry can detect speeds up to 10,000 RPM.
<b>SENSOR TYPES</b>	The analyzer will accept any vibration signal input (acceleration, velocity, or displacement.) The input is then displayed as collected or integrated to any other vibration unit. The vibration input will accept any voltage - generating sensor (must have external charge converter when in charge mode) and will supply power to the sensor when required.
<b>ANALYSIS RANGE</b>	A high roll-off, 8-pole elliptical, anti-aliasing filter is used with a Fast Fourier Transform (FFT) to accurately transform data from the time to the frequency domain. The analyzer will perform FFT resolutions of 100,200,400, and 800 lines.