SECTION II

DESCRIPTION

2-1   SCOPE

Varian's 956 portable helium mass spectrometer leak detector is a microprocessor-controlled leak detector utilizing state-of-the-art technology for easy operator interface. A 48-character alpha-numeric display on the front panel is used to spell out information to alert the operator of the current status of the leak detector. The alpha-numeric displays also interact with the front panel keys enhancing the user-friendly environment. Control keys such as START, VENT, AUDIO, and AUTO/MAN keys appear on the right side of the front panel for easy access while programming or special function keys are on the left side under a cover.

Necessary valving takes place automatically as the leak detector moves through various ranges tracking the helium signal and the test port pressure. Additional features such as Auto Calibration, Gross Leak, large rough pumps, etc., make this portable leak detector a completely integrated package.

For unique applications and for the expert user, critical system parameters are programmable to make the 956 portable leak detector fit any leak detection application.

Figures 2-1 and 2-2 show the physical dimensions of the two models of the leak detector, both front and side views. Figure 2-3 shows the cabinet exposed, the vacuum system, and power controls.

2-2   SPECIFICATIONS

Table 2-1 lists the operating specifications of the Model 956 portable leak detector.

Table 2-1. Operating Specifications

Sensitivity	2×10^{-10} atm cc/sec - He
	8×10^{-11} atm cc/sec - air
Response time	<2 seconds-He
Amplifier drift	<2% of the most sensitive scale per AVS std 2.1
Noise level	<2% of the most sensitive scale per AVS std 2.1
Cycle time	mechanical pump dependent
Power	115 V, 50/60 Hz, single phase*
	Basic module requires 10-amp service
Startup time	3 minutes maximum
Operating Temperatures	5°C (41°F) low
	35°C (95°F) high

* The 956 is also available in 100V, 200V, 230V, and 240V models.