

Input/Output Impedance Measurement Set

The Input/Output Impedance Measurement Set enables the engineer to perform input impedance, output impedance and conducted audio susceptibility measurements on systems while the systems are under operational power. The Measurement Set is used in conjunction with the Venable Frequency Response Analyzer System hardware and software. The Measurement Set consists of a power amplifier, step down isolation transformer and interconnecting cables.

The Measurement Set extends the Frequency Response Analyzer oscillator drive to include high current/low impedance applications. All Venable System features are fully operational including servo. The power amplifier has one manual gain adjustment but does not require calibration. The automatic Venable System performs all precision control and measurement. The amplifier utilizes rugged self-protection circuits for routine overloads.

The isolation transformer enables direct injection of test signals into the customer's systems while under full power and loading. The transformer is designed to carry substantial DC without core saturation for undistorted drive. Measurement Sets are available in more than 100 amp (IOZ-100) ratings depending upon the current requirements of the system under test.

The customer provides either a current probe or low ohms series resistor for current sense. Measured impedances at any frequency are conveniently available on the screen or printer.

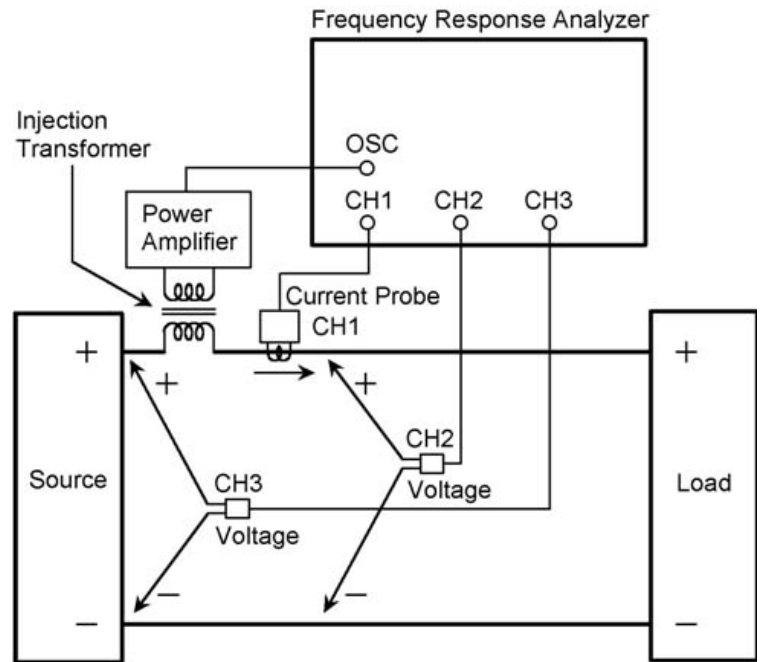


Figure 1. Impedance Measurement Test Setup

VLA 1500 and 100 Amp Transformer

Measures Input/Output Impedance and Conduct Audio Susceptibility. Options include High Power Amplifier, Injection Transformer for use with DC Currents up to 100 amps, Cables, and Manuals.

Amplifier Specifications

- Output Power— 272 Watts, 17 VRMS and 16A into 1.0 Ohm in High Current mode
- Output Voltage — 113 VRMS into 32 Ohms in High Voltage mode
- Frequency Range — DC to 250 kHz
- Output Impedance — 28 milli-Ohms in series with 1.0 micro-Henrys
- Power Requirements — Single phase, 120 VAC, 60 Hz, 10 Amp service or Single phase, 220 VAC, 50-60 Hz, 5 Amp service

Transformer Specifications

- Direct Current through transformer secondary without core saturation:
 - IOZ—100 amps secondary, 600 VDC Isolation
 - HV IOZ — 100 amps secondary, 4K VDC Isolation
- Bandwidth — 30 Hz to 250 kHz
- Audio Power — 200 W