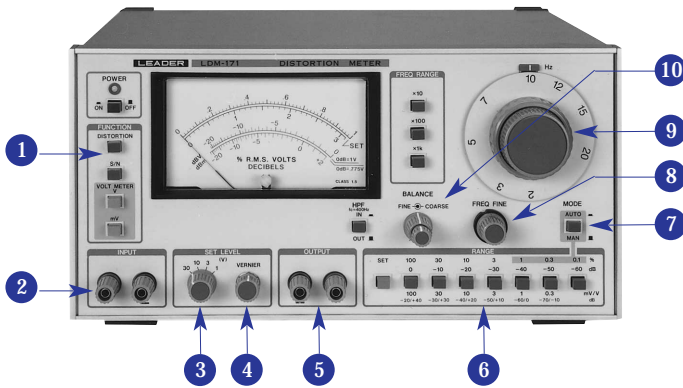


# Semi-Automatic Distortion Meter



LDM-171

- *Auto Nulling Feature Speeds Measurements*
- *Measures THD, S/N and Signal Level*
- *Cost Effective*

The task of making distortion measurements on audio equipment and systems is greatly simplified with Leader's LDM-171. This semi-automatic distortion meter features an automatic nulling mode that enables rapid error-free THD measurements below 1%, eliminating almost all manual tuning, and increasing productivity at the same time.

The LDM-171 also features S/N measurements to 80 dB and signal level measurements over a wide range further enhancing the value of the instrument on the audio bench. A high-pass filter (cut-off frequency at 400 Hz) and monitor output terminals for identifying distortion products are provided. All of this versatility packaged into one compact, neatly designed instrument is certainly a welcome addition to any audio bench.

- 1 Function switches select mode for distortion, signal-to-noise ratio or AC volt/millivolt measurement.
- 2 Input terminals accept up to 100 V rms for level measurements and to 30 V rms for THD or S/N.
- 3 Set level range switch for more than one third full scale deflection relative to the input signal level for THD and S/N ratio measurements.
- 4 Set level vernier for full scale set reference 0.35 to 30 V rms.
- 5 Output for monitoring and characterizing distortion and noise products on an oscilloscope.
- 6 Range switches are used to enter the set level mode, and then to select the measurement range sensitivity.
- 7 Mode switch selects auto-nulling at 1% or less to speed THD measurements.
- 8 Frequency fine control is used during manual distortion measurements.
- 9 Frequency range vernier nulls fundamental frequency component during THD measurements.
- 10 Balance coarse/fine controls are used to balance the bridge during distortion measurements.

## KEY SPECIFICATIONS

### DISTORTION MEASUREMENTS

#### Ranges

0.1, 0.3, 1, 3, 10, 30, 100% full scale

#### Automatic Nulling Ranges

0.1%, 0.3% and 1.0% full scale

#### Minimum Distortion Read

0.01%

#### Accuracy

Within  $\pm 5\%$  full scale

#### Frequency Range

20 Hz - 20 kHz in 3 ranges

#### Input Level Range

0.35 - 30 V rms in 4 ranges

#### Input Impedance

100 k $\Omega$ , < 50 pF

#### Fundamental Frequency Suppression

> 80 dB, 2nd and 3rd harmonic flatness within 0.6 dB

#### Harmonic Bandwidth

20 Hz - 200 kHz, -1 dB

#### Residual Distortion

< 0.01%

### SIGNAL-TO-NOISE RATIO MEASUREMENTS

#### Range

0 - 80 dB below reference level

#### Input Level

0.35 - 30 V rms

#### Input Impedance

100 k $\Omega$ , < 50 pF

### LEVEL MEASUREMENTS

#### Range

0.3 mV - 100 V rms in 12 ranges

#### Frequency Range

20 Hz - 200 kHz

#### Minimum Reading

30  $\mu$ V rms

#### Accuracy

$\pm 5\%$  full scale

#### Input Impedance

1 M $\Omega$ , < 50 pF

### FILTER

#### High-Pass

-3 dB point at 400 Hz, 12 dB/octave

### MONITOR OUTPUT

#### Output Voltage

1 V rms at full scale

#### Output Impedance

1 k $\Omega$

### POWER REQUIREMENTS

100, 120, 220, 240 V ac  $\pm 10\%$

50/60 Hz, 10 VA

#### Operating Temperature

0 - 40°C

### PHYSICAL

#### Size (W x H x D)

11 $\frac{3}{4}$  x 6 x 9 $\frac{7}{8}$  in.

300 x 150 x 250 mm

#### Weight

9 lbs., 4.2 kg

### SUPPLIED ACCESSORY

Dual Banana Plug to Alligator Cable