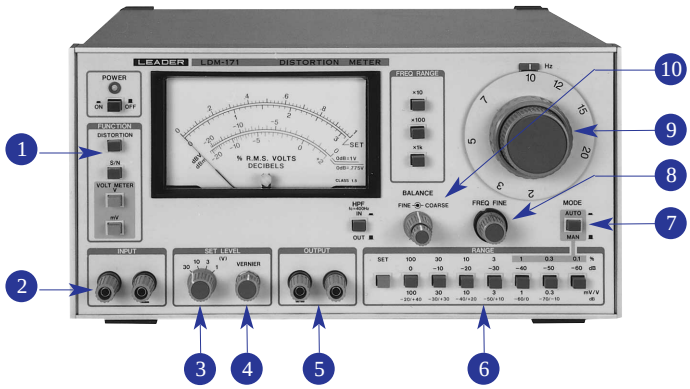
Semi-Automatic Distortion Meter



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 ± 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 kΩ, < 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 kΩ, < 50 pF

LEVEL MEASUREMENTS

Range
0.3 mV - 100 V rms in 12 ranges
Frequency Range
20 Hz - 200 kHz
Minimum Reading
30 µV rms
Accuracy
± 5% full scale
Input Impedance
1 MΩ, < 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 kΩ

POWER REQUIREMENTS

100, 120, 220, 240 V ac ± 10%
50/60 Hz, 10 VA
Operating Temperature
0 - 40°C

PHYSICAL

Size (W x H x D)
11 3/4 x 6 x 9 7/8 in.
300 x 150 x 250 mm
Weight
9 lbs., 4.2 kg

SUPPLIED ACCESSORY

Dual Banana Plug to Alligator Cable