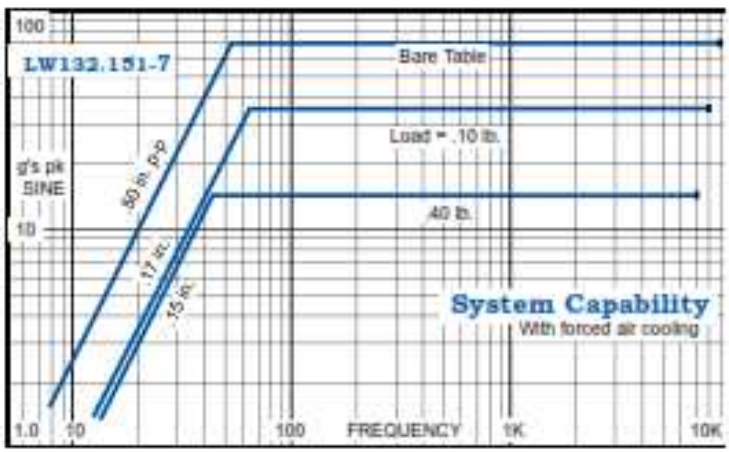
LW132.151-7 Vibration System

Specify the LW132.151-7 system when a light weight, portable system with maximum force is desired for general purpose testing, actuation, and calibration of small components. This system is popular because of its low cost, high force and high displacement capability, with DC coupled low frequency performance. This system can be operated in constant force mode for modal test applications.

General Specifications

Sine Force:	7.0 lbf pk (natural convection)
Random Force:	4.0 lbf rms (natural convection)
Shock Force:	12.0 lbf pk shock
Frequency Range:	
Voltage Source Mode	DC to 9,000 Hz
Current Source Mode	DC to 2,000 Hz
Max. Acceleration:	70 g pk, bare table 35 g pk, 0.1 lb. load 14 g pk, 0.4 lb. load
Max. Displacement:	0.20 inch pk-pk, bare table
Cooling:	Amplifier: natural convection Shaker: natural convection
Power Requirements:	300 VA @95-125, 190-250, 1Ø, 50/60 Hz.



Standard trunnion allows shaker operation in any position from vertical to horizontal. The hook-up requirements on the PA-151 are simple, making the system very portable.

System Components*

- ET-132-2 Electrodynamic Shaker
- PA-151 Linear Power Amplifier
- Interconnect Cable

System Options*

- SC-121 Sine Servo Controller
- SG-135 Manual Sine Controller
- CB-152-132 Cooling Blower Assembly (recommended for continuous duty applications over 4.5 lbf.)
- Amplifier Rack Mount Brackets
- MS-129-132 Modal Stinger Kit

*See individual components for more detailed specifications and options.

ET-132-2
ET-132-203 Electrodynamic Shaker

- Up to 7 pounds pk sine force
- .5 inch stroke
- Threaded load mounting insert
- Payloads up to 2 lbs.
- Low stray magnetic field
- Frequency range[2] DC-11 KHz.
- Trunnion mounting base

Labworks ET-132-2 and ET-132-203 Electrodynamic Transducers are truly portable (only 6 pounds) permanent magnet shakers. With standard trunnions, they are ideally suited for the production screening of small components, modal testing or as displacement generators for, academic, biomedical and laboratory research. These shakers feature extremely rugged suspension systems. Carbon fiber composite leaf flexures and isolated linear bearings provide low distortion and eliminate the need for reaction wrenches when mounting loads to the armature.

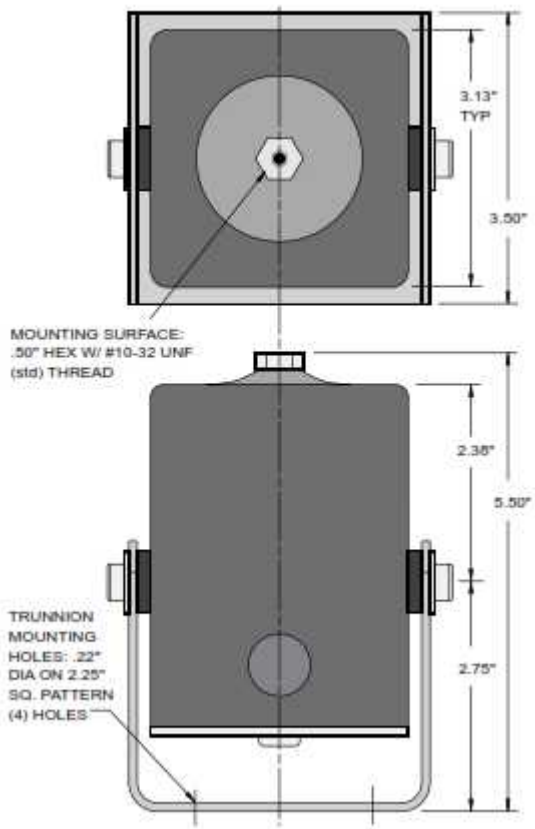
General Specifications[1]

Performance	-203	-2
Sine force	4.5 lbf pk	7 lbf pk
Random force	3 lbf rms	5 lbf rms
Shock force, 11 msec	9 lbf pk	21 lbf pk
Max displacement		
Continuous pk-pk .	2 in	.5 in.
Between stops	.35 in	.55 in.
Physical		
Armature weight	.07 lb	0.1 lb
Suspension stiffness	15 lbs/in	15 lbs/in
Dimensions	5.38" H x 3.6" W x 3.5" D	
Shaker weight	6 lbs	6 lbs

Options

- Modal stingers and mounts.
- Load attachment threads (#10-32 std): #6-32, #8-32,M4x.7.
- Cooling blower recommended for continuous operation above 4.5 lbf.

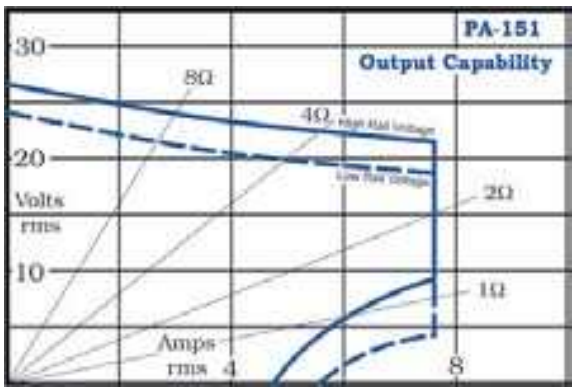
[1] Please see systems ratings for additional specifications
[2] Load dependent.
Specifications subject to change.

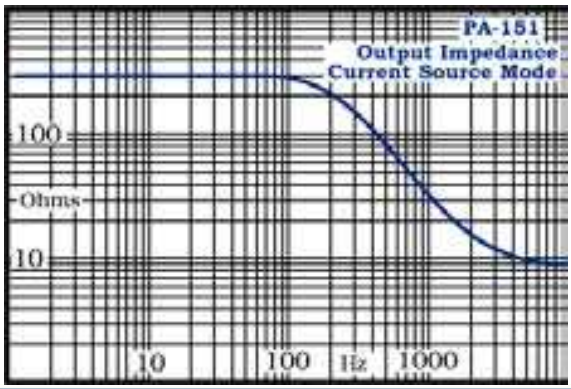


PA-151 Linear Power Amplifier

- **Output: 25V or 20V, 180 VA**
- **Direct coupled linear output**
- **Output voltage and current meters**
- **Voltage and Current source modes**
- **Convection cooling, no fans**
- **Light weight, desktop amplifier**

The Labworks PA-151 Linear Power Amplifier is a high quality, convection-cooled, direct-coupled audio amplifier primarily intended for use with small vibration systems. Although this amplifier has been designed to directly drive low impedance loads, it can be used in any application requiring continuous duty, high quality, audio power.
PA-151 Amplifiers feature protection from both over current and over temperature insuring long term reliability. The amplifier circuitry uses soft start technology for load protection and has external interlock capabilities as well as output voltage and current bar graphs. A voltageproportional-to-output-current signal output is provided for modal test and other applications requiring force monitoring. A unique dynamic output drive circuit provides high random peak output current for increased random and shock vibration system





General Specifications*

Output voltage	25 or 20 V rms
Output current	7.5 A rms
Max. cont. dissipation	180 W
Frequency response	
Voltage Source: DC to 10 KHz	-1 dB
Current Source: DC to 2 KHz	-2 dB @ 4Ω
Max. voltage gain	28 dB
Max. current gain	22 A/V
Cooling	Natural convection
Input impedance	10 kΩ
Meters	
Volts	9 segment bar graph
Amps	9 segment bar graph
Interlock circuit	
External, user	F.C. switch or TTL, F.C.
Input power	300 VA max
Voltage	100-120, 200-240 V,1Ø
Frequency	48 to 62 Hz
Dimensions	3.5" H x 17" W x 13" D
Weight	19 lbs

1 Switch selectable internal rail voltage allows impedance matching to load requirements
2 Specifications subject to change. Call factory for latest specifications.

Amplifier Options

- Rack panel cabinet
- BNC signal cables