• EL-750 Electronic Load

Power supply check-out and performance can be substantially enhanced through use of this high performance instrumentation hardware.

The Model EL-750 is a precision programmable electronic load test instrument capable of dissipating up to 750 watts of DC power. It is a small, compact, portable unit designed for use in laboratories, quality control and receiving inspection departments.

The Model EL-750 operates in either a constant resistance or constant current mode, selected manually with front panel push buttons.

In the constant resistance mode, the EL-750 can be used to test the performance of DC power sources by static or dynamic resistance loading.

In the constant current mode, the EL-750 can be used to test DC power sources, to function as constant current discharge of batteries and capacitor banks. Also, it can become an adjustable constant current supply in conjunction with a DC power source.

The front panel contains all the controls for manual operation and indication. Load current programming can be accomplished by a steady DC voltage level externally applied through a connector mounted on the rear panel. Dynamic loading is available in two modes: a square wave generator built into the unit for testing at 1KHz or twice line frequency; or a variety of voltage waveforms (pulsed, ramp, square, sine, etc.) may be externally applied through the remote program input on the rear of the unit.

A meter shunt is provided that can be used as a calibration check or for a digital meter readout.

Three internal fault indicators identify overtemperatures, overvoltage or overcurrent and load saturation (undervoltage) conditions. Any one of these conditions will trigger a front panel warning light and limit the load.

Where load test requirements exceed 750 watts, the EL-750 can be connected in parallel to dissipate much higher power levels.

The EL-750 is 9.00" wide x 6.00" high x 17.3" long, and, without the case it is adaptable to 5" high half-rack mounting.

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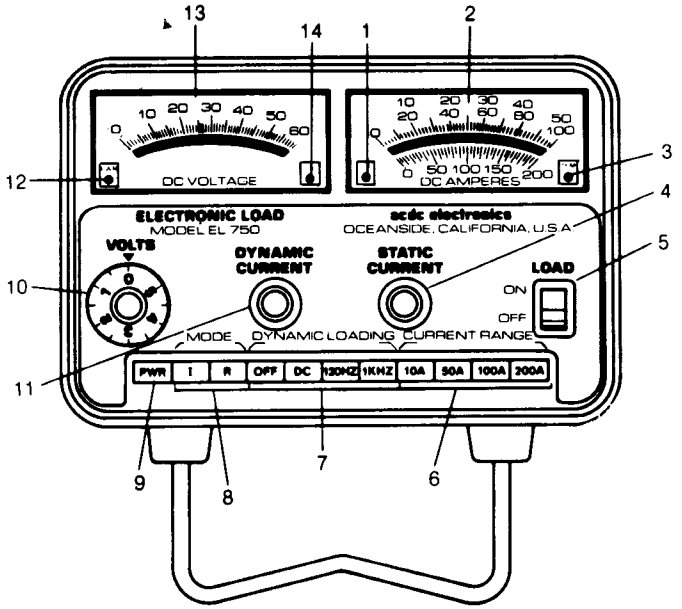
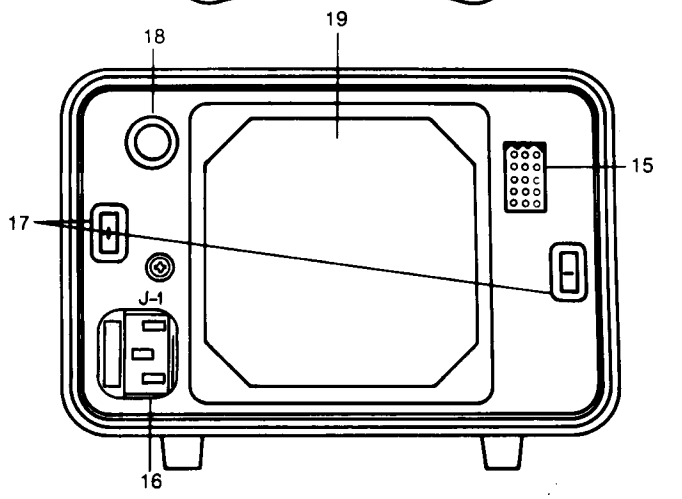
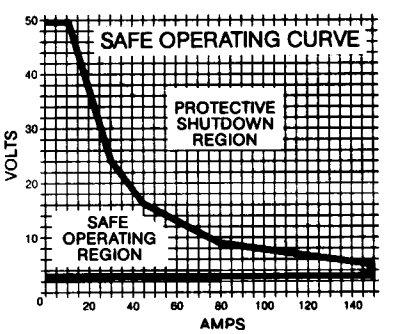




1. LED indicates that voltage, current or power exceeds maximum ratings of the instrument.
2. Indicates load current.
3. LED indicates overtemperature conditions.
4. Sets upper of two current levels when dynamic loading function is operating.
5. Switches from no-load to pre-set load.
6. Push-button current range switches.
7. Selects frequency of switching between the two preset current levels.
8. Operating mode selector switches (constant current or constant resistance).
9. Controls input power to instrument.
10. Sets the rated voltage of the power supply under test when operating in constant resistance mode.
11. Sets the lower of the two current levels when dynamic function is operating.
12. LED indicates "power-on."
13. Measures voltage across input terminals.
14. LED indicates undervoltage condition.
15. Remote program, input/output connector.
16. AC cord connector.
17. Bus connectors for unit under test.
18. Line fuse.
19. Fan filter.

SPECIFICATIONS

Power Requirements:	105 to 125 or 210 to 250V. 47 to 63 Hz 1Φ 20W.
Maximum Loading Power:	750W (See power derating curve).
Maximum Loading Voltage:	50 VDC.
Minimum Loading Voltage:	3 VDC.
Maximum Loading Current:	150A.
Operating Mode:	Constant current or constant resistance.
Current Ripple:	Less than 0.1A P-P.
Dynamic Loading:	Allows switching between two current levels at a switch selected rate of 1 KHz or two times input line frequency. The two current levels are set by front panel controls.
Dynamic Load Response Time:	1 microsecond per amp or 50μ secs, whichever is greater.
Remote Programming (Constant Current):	0-10V is equal to 0-150A. Accuracy is ±1%. Program voltage input impedance approximately 50K.
Remote Programming (Constant Resistance):	External program resistor required. 10,000 ohms is equal to a load resistance of 1 ohm. Accuracy is ±1%. Resistance range is 0.02Ω to 33Ω.
Meter Ranges:	Voltmeter 0-60 VDC. Ammeter 0-10-50-100-200A.
Meter Accuracy:	±2% full scale.
Protection Circuits:	Electronic circuit limits power dissipation to 750W. Load shuts down in the event of an overvoltage. Thermal breakers shut off load in the event of an overtemperature condition. Reverse diode across bus bars protect against reverse polarity.
Current Signal Output:	Voltage proportional to current is provided. 1 millivolt per amp, ±1%.
Operating Temperature Range:	0-40°C.
Cooling:	Integral forced air cooling.
Front Panel Controls:	Push button switches turn power on/off, select mode of operation, dynamic load on/off, dynamic load frequency, and ammeter current range. Controls to adjust for input voltage, dynamic load, and load current. Toggle switch for load on/off.
Front Panel Indicators:	Voltmeter, ammeter, power on indicator, overvoltage — overcurrent indicator (EI), undervoltage indicator, and overtemperature indicator.
Rear Panel:	A.C. power connector, fuse, remote program, input/output connector (MOLEX), and positive and negative bus bars.



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