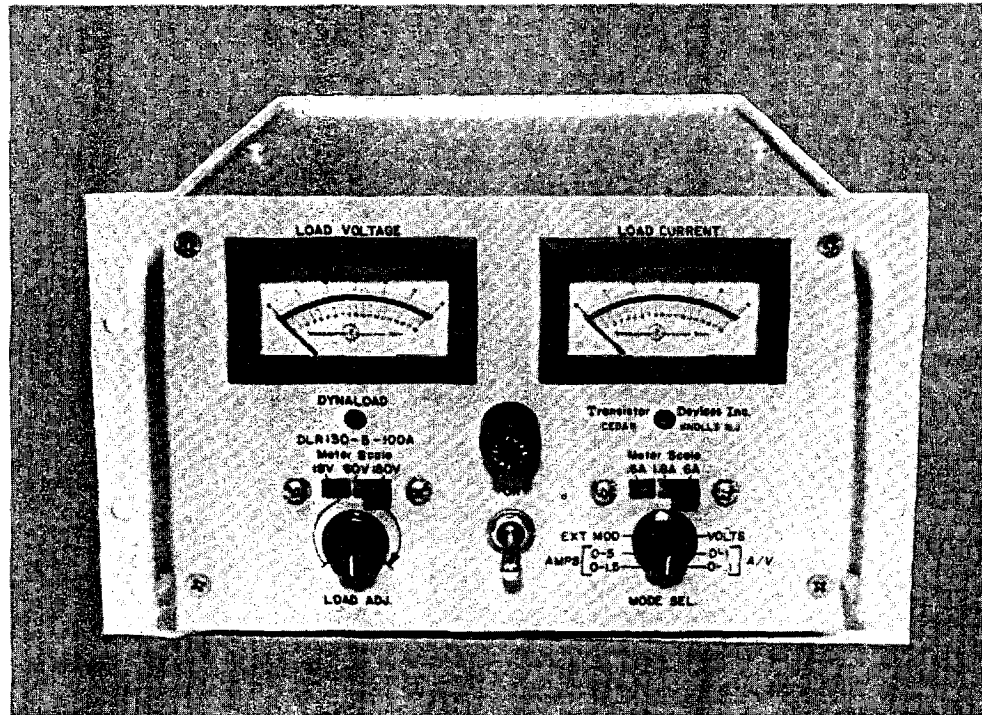


# DLR SERIES

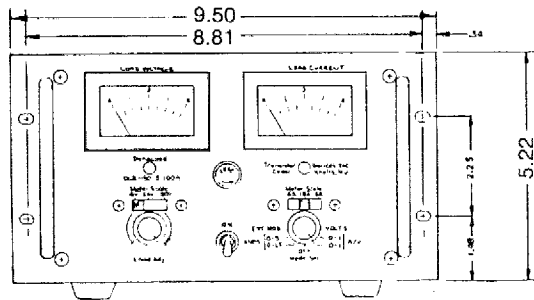
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*steady state electrical loads*

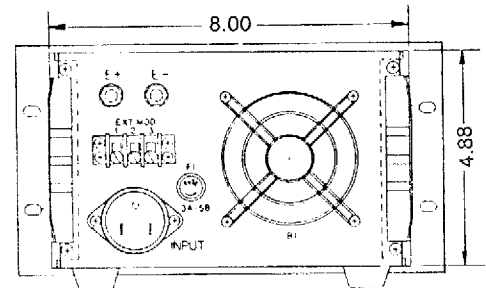


The DLR series is the original Dynaload and is designed for economy and versatility. These standard units offer the basic load functions of resistive loading and constant current loading. Constant voltage is also provided for battery simulation. Remote programming inputs are located on the rear panel for easy connection of a 0-6V @ 1mA DC program signal or waveform. A Digital ammeter is available as an option.

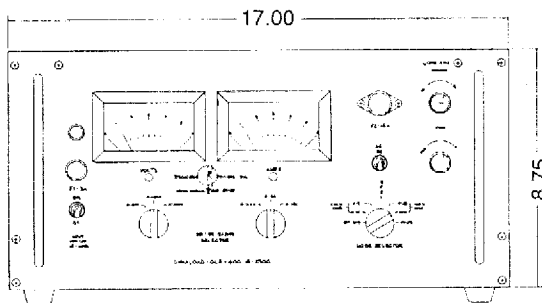
MODEL:	DLR 50-15-150A	DLR 130-5-100A	DLR 400-1.5-100	DLR 400-15-2500 (Not Pictured)
OPERATING VOLTAGE	3-50V	5-130V	30-400V	30-400V
LOAD CURRENT	0-15A	0-5A	0-1.5A	0-15A
MAXIMUM POWER	150W	100W	100W	2500W
VOLTMETER RANGES	0-6V 0-18V 0-60V	0-18V 0-60V 0-180V	0-60V 0-180V 0-600V	0-60V 0-180V 0-600V
AMMETER RANGES	0-1.8A 0-6A 0-18A	0-.6A 0-1.8A 0-6A	0-.18A 0-.6A 0-1.8A	0-1.8A 0-6A 0-18A
RESISTANCE RANGES	0-.5A/V 0-3A/V	0-.1A/V 0-1A/V	0-.003A/V 0-.01A/V	0-.03A/V 0-.1A/V
CONSTANT CURRENT RANGES	0-3A 0-15A	0-1.5A 0-5A	0-.3A 0-1.5A	0-3A 0-15A
PROGRAM INPUT	All models 0-6V @ 1mA			
PROGRAM LINEARITY	All models less than $\pm 1\%$ from 10% full load			
RESPONSE TIME	All models less than 50usec			
CONSTANT VOLTAGE	0-50V	0-130V	0-400V	0-400V
METER ACCURACY	All models less than $\pm 3\%$			
OVERVOLTAGE	60V max	150V max	500V max	500V max
CURRENT LIMIT	20A max	7A max	2A max	20A max
POWER LIMIT	200W max	150W max	150W max	3000W max
IEEE BUS INTERFACE	See Page 21	See Page 21	See Page 21	See Page 21



DEPTH—12.0

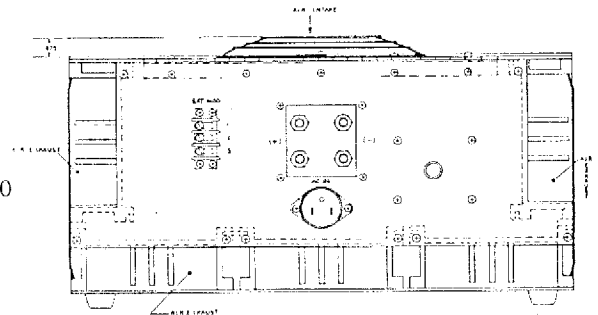


WEIGHT—11 Lbs.



DEPTH—17.56

DLR 400-15-2500



WEIGHT—42 Lbs

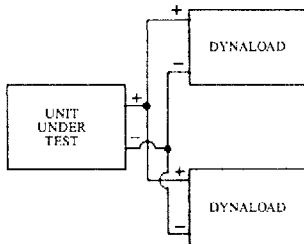
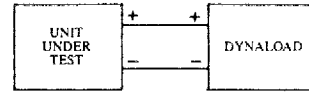
# STANDARD FEATURES

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- AC Input:** 115 VAC  $\pm$  10%, 47-63 Hz
- DC Input Terminals:** Input terminals are located for convenience on both front and rear panels of most models. We recommend using the rear input terminals when loading above 15 amps. The DLR series and high power models have input terminals on the rear only.
- Twin Load Adjusts:** All models with manual controls have both coarse and fine load controls for greater resolution. The DLR series has a single load control.
- Voltmeters:** On the DLR, DLP, and DLVP models, a three-range voltmeter is provided for monitoring input levels.
- Ammeters:** The DAL, DLR, DLP, and DLVP models have a three-range ammeter for visual measurement of current. Each range is accurate to  $\pm$ 3%.
- Amps per Volt Ranges:** The two ranges on manually controlled units represent resistive loading. Maximum loading current is equal to the input voltage, multiplied by the ratio indicated. This allows replacement of a wide variety of load resistors with a single Dynaload.
- Constant Current:** This mode is used to produce a constant load on any variable source. Typical current regulation is  $\pm$ 1%, with less than .1% RMS ripple current. This mode is excellent when using a Dynaload as a current regulator.
- Constant Voltage:** On the DLR, DLP, and DLVP models, constant voltage regulation can be used for a variety of applications, such as battery simulation, voltage limiter, or shunt regulator. This mode is also used when connecting Dynaloads in series.
- External Programming:** All units have provisions for external modulation. A terminal input is located on the rear panel for convenience.
- Short Circuit:** On the DAL, DLP and DLVP models, a short circuit contactor is provided for measurement of current flow under a shorted condition.\* This feature is not found in 400V models.
- Pulse Loading: (DLP Series)** This function is a fixed square wave, having a 50% duty cycle with a variable amplitude and variable frequency of 500 Hz to 5 KHz. A current sample output is provided for measurement of current waveforms. A sync output is also provided for synchronizing other test equipment to the load pulse.
- Pulse Loading: (DLVP Series)** With the same loading characteristics and sample outputs as the DLP series, the DLVP series adds the dimension of variable pulse width. With a variable duty cycle of 10% to 100%, and an extended frequency range of 10 Hz to 5 KHz, a wide variety of pulse waveforms can be generated. Three separate frequency ranges and two load ranges are provided for greater sensitivity.
- Protection:** All Dynaloads are protected against overcurrent, overpower, overvoltage, and reverse polarity.
- Mounting Brackets:** With the exception of the DAL, DLF, DLM and DLR series, brackets are provided for mounting in a standard 19 inch rack.
- Testing:** All units are double tested to guarantee proper operation and are then calibrated as per MIL-STD-45662.

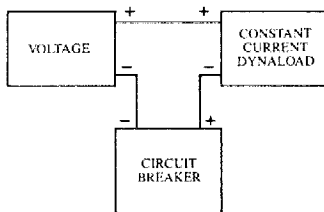
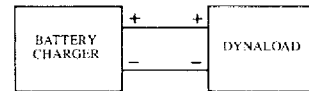
\*NOTE: Caution should be used when shorting batteries and large capacitor banks, as the instantaneous current could damage the unit.

Power loading of any DC source in either resistive, constant current, or pulse loading modes is a basic capability. These functions of the Dynaload can also be performed by remote programming.



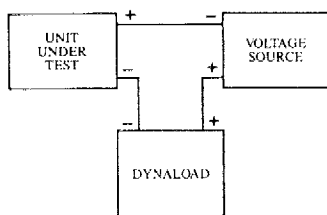
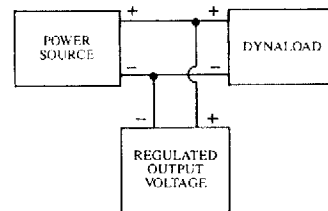
Dynaloads can be connected in parallel for high current or high power applications. Units will parallel in the resistive and constant current mode. The Dynaloads may be controlled manually or programmed simultaneously.

In the constant voltage mode, Dynaloads can simulate a battery or DC motor.



Dynaloads can be used as a current regulator with local or remote programming.

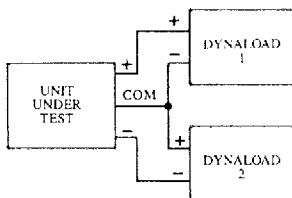
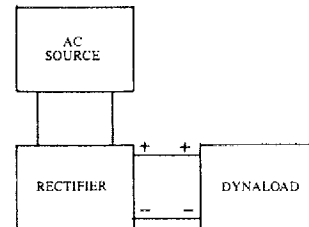
Dynaloads in the constant voltage mode can be used as a shunt voltage regulator.



Zero volt loading can be accomplished by using a DC source in series with the Dynaload. This is a very useful configuration when dealing with low voltages.

ie. Solar cell testing

Dynaloads can be utilized in many AC applications, such as transformer testing, provided the AC source is rectified before being applied to the Dynaload.



Dynaloads can also be connected for loading multiple polarity outputs. If a single programming source is to be used, a program isolator (Model 2569) is required for Dynaload #2.