

# 485 SERIES

## LASERPAK OEM LASER DRIVER



The 485 LaserPak laser driver offers the same high-quality instrumentation that Arroyo Instruments benchtop units are known for, at one-third the size. LaserPak brings the great performance and laser protection features found on the LaserSource at a lower cost.

### OVERLAPPING LASER PROTECTION

Including safety interlock, ESD protection, hardware limits for current & voltage, soft power-on, and intermittent contact safeguards.

### MULTIPLE OPERATING MODES

Choose from: ● **Constant Current** ● **Constant Power** ● **Constant Voltage**

### ROBUST ANALOG INTERFACE

Provides on/off control, status, and analog monitor of current and photodiode. Auxillary thermistor and voltage monitor input for extended monitoring.

### ANALOG MODULATION

Bandwidths up to 65 kHz.

## AT-A-GLANCE

Current Ranges:

- ▶ 2 Amp / 15 Volt
- ▶ 4 Amp / 8 Volt
- ▶ 8 Amp / 4 Volt
- ▶ Custom Configurations

High Accuracy

- ▶ Up to 0.05% of reading  
+ 0.05% of scale

Low Noise

- ▶ As Low as <math><60 \mu\text{A}</math>

Compliance Voltages

- ▶ Up to 24 Volts available

Remote Operation via PC

- ▶ Use your existing control code.  
Our command set is compatible with other manufacturers.
- ▶ USB / RS-232 Connections



## A FULL LASER SYSTEM

Pair the LaserPak with the Arroyo TEC Pak to create a low-cost combination laser system with all the power and accuracy of a much more expensive solution.

***Build a full laser system that fits in your budget.***

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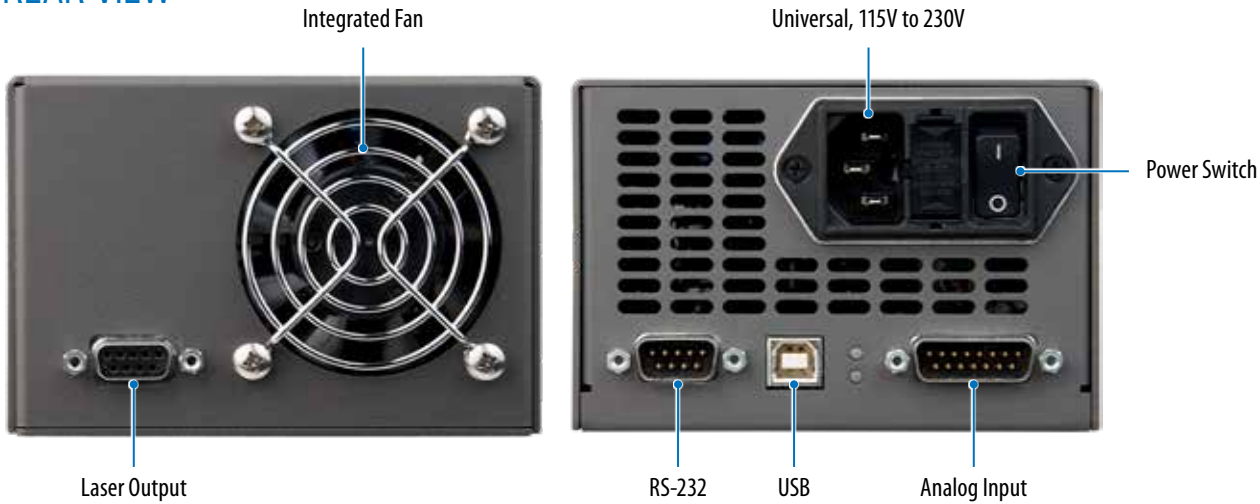
## LASERPAK CW MODE

### SPECIFICATIONS

	485-02-15	485-04-08	485-08-04	
<b>Setpoint</b>	<b>Laser Current</b>			
	Range (mA)	0 – 2000	0 – 4000	0 – 8000
	Resolution (mA)	0.1	0.1	0.5
	Accuracy ( $\pm$ [% set+mA])	0.05% + 0.4	0.05% + 0.8	0.05% + 1.6
	Stability (ppm, time)	< 10, 1 hour		
	Temperature Coeff (ppm/°C)	50		
	Noise/Ripple ( $\mu$ A rms)	< 60	< 100	< 200
	Transients ( $\mu$ A)	< 300	< 400	< 600
	Compliance Voltage (V)	15	8	4
	<b>Photodiode Current</b>			
	Range ( $\mu$ A)	5 – 10,000		
	Resolution ( $\mu$ A)	1		
	Accuracy ( $\pm$ [% set+ $\mu$ A])	0.05% + 1		
	Stability (ppm, time)	< 200, 24 hours		
	Temperature Coeff (ppm/°C)	< 200		
	PD Bias (V)	Jumper selectable: No bias, -3V (default), -5V		
	<b>Laser Voltage</b>			
	Range (V)	0 – 15	0 – 8	0 – 4
	Resolution (V)	0.001		
	Accuracy ( $\pm$ [% set+V])	0.05% + 0.005		
	Stability (ppm, time)	< 50, 1 hour		
Temperature Coeff (ppm/°C)	< 100			
<b>External Modulation</b>				
Input Range	0 – 10V, 10k $\Omega$			
Modulation Bandwidth (kHz)	65	50	40	
<b>Measurement</b>	<b>Laser Current</b>			
	Resolution (mA)	0.1	0.1	0.5
	Accuracy ( $\pm$ [% reading+mA])	0.05% + 0.4	0.05% + 0.8	0.05% + 1.6
	<b>Laser Voltage</b>			
	Resolution (V)	0.001		
	Accuracy ( $\pm$ [% reading+V])	0.05% + 0.004		
<b>Photodiode Current</b>	Resolution ( $\mu$ A)	1		
	Accuracy ( $\pm$ [% reading+ $\mu$ A])	0.05% + 2		
	<b>Limits</b>			
<b>Limits</b>	<b>Laser Current</b>			
	Resolution (mA)	1		
	Accuracy ( $\pm$ [% reading+mA])	20	40	80
	<b>Laser Voltage</b>			
Resolution (V)	0.1			
Accuracy ( $\pm$ % FS)	2.5%			
<b>General</b>	Laser Connector	DB-9, male		
	Computer Interface	USB 2.0 Full Speed (Type B), RS-232 (DB-9, male)		
	Power	115V / 230V, 50/60 Hz		
	Size (H x W x D) [inches (mm)]	3.0 (77) x 4.5 (115) x 8.5 (216)		
	Operating Temperature	+10°C to +40°C		
	Storage Temperature	-20°C to +60°C		

www.arroyoinstruments.com

## REAR VIEW



## ARROYO CONTROL



Control any Arroyo laser driver or temperature controller directly from your PC. Simply connect to your Arroyo device via USB or RS-232 and gain direct access to settings, device limits, and adjustments from an easy-to-use Windows interface. You can even connect to multiple instruments at the same time.

Download ArroyoControl for free from [www.arroyoinstruments.com](http://www.arroyoinstruments.com).

LabView drivers available.



## ACCESSORIES

### 1402-RM

#### PAK SERIES RACK MOUNT KIT, 3 OR 5 UNITS

This rack mount kit will mount any 485 LaserPak or 585 TECPak controller. When positioned flat, the 1402-RM can hold three units in a 2U space.



Mount the controllers on their sides, and the 1402-RM can hold five units in a 5U space.



There is also mounting support for a 7-port USB hub as well as holes for securing and dressing wiring to the tray with cable ties.