

# Sunstone Linear DC

## Precision of an LDC, Power of an HF Inverter

Sunstone has designed a completely unique closed-loop feedback resistance welding system. Utilizing new patent pending technologies, the UC Linear DC welder has the power of a High-Frequency Inverter and the precision of a Linear DC. It isn't an HF welder since it does not require an external transformer, and it offers a higher range of settings than typical Linear DC welders. Yet, this product is able to perform the same functions as both of these technologies, and in most cases it has capabilities that exceed those of other HF or Linear DC welders – offering high repetition rates, fine low-energy control, and short or long weld times – without any of the drawbacks and inconveniences.

The UC Linear DC features many attractive selling points that can cater to a multitude of users. The most visible aspect is the 10" touch screen interface which offers quick access to the welder controls. The adjustability and control of the weld settings is greatly streamlined by the intuitive interface, and users can customize the interface to display preferred information and/or controls. Also related to the interface, is the ability to update the welder's software. This allows users to update features, functions, and capabilities effortlessly. This also means that custom software can be created based on specific

customer requirements.

When it comes time to weld with the UC Linear DC, users have from 10–2500 amps of weld current. The weld time duration can range from 0.1 up to 1000 milliseconds and is also adjustable by 0.01ms increments. In addition to setting weld current, voltage, or power, and the weld time for up-slopes, welds, and downslopes, the UC linear DC can introduce high-frequency agitation to each of these weld parameters. This agitation feature provides additional weld penetration, more uniform metal crystallization, stronger weld joints, and can facilitate stronger weld joints with lower overall heat input.



Patent pending

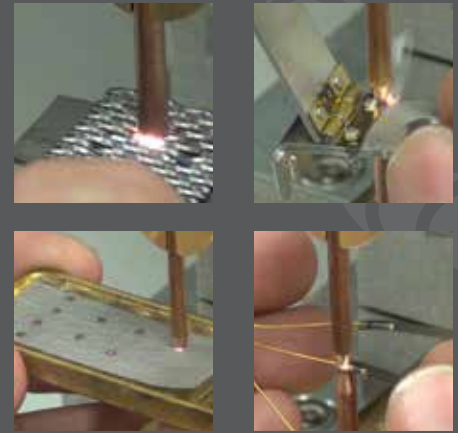


**Sunstone** - Your partner in micro welding!  
Contact us for **free sample weld evaluations**.  
We will find the solution for any application.



**Sunstone Engineering**  
1-877-786-9353  
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Payson, UT 84651 USA

### Applications



- Thermocouples
- Battery Pack Welding
- Coil Termination
- Relays
- Strain Gauge
- Aerospace Welding
- Honeycomb
- PCB Welding
- Electrical Components
- Sensors
- Injectors
- Magnet Wire Bonding
- Solenoids
- Transformer Coils
- Actuators
- Inductors
- Seam Welding
- Adding Material
- And More!



**Features**

- 10–2500A weld current
- Roll Spot Capability
- Short Seam Segments
- Geared for Automation
- Weld data logging
- High precision linear DC welder
- No external transformer required
- Programmable Schedules and Jobs
- 10" Capacitive Touch screen Interface
- Closed loop feedback and weld monitoring technology
- Graphical feedback display of current, power and voltage
- Updateable firmware
- Dual weld control
- LVDT (position) Feedback
- Force Feedback
- Data logging via USB and ethernet
- Smart heat weld overlay
- Customizable waveform generation
- Fine control over energy waveform



	LDC 1500W		LDC 3000W	
Nominal Line Voltage (Single Phase)	90–264 AC Version		180–264V	
Duty Cycle	4%		8%	
Current	10A –2500A 10 Amp/Step		10A –2500A 1 Step	
Voltage	0.1V – 10.0 V at 10 mV/Step		0.1V – 10.0 V at 10 mV/Step	
Power	0.01kW – 20kW 10Watt/Step		0.01kW – 20kW 10Watt/Step	
Peak Current	2500 A		2500 A	
Peak Voltage	10V		10V	
Peak Power	20kW		20kW	
Weld Period Ranges weld time (each section) Squeeze/Hold Periods	Ranges (msec) 0–100 0–5	Resolution (steps) 0.1ms 1ms	Ranges (msec) 0–100 0–5	Resolution (steps) 0.1ms 1ms
Current Output Accuracy	±10A		±10A	
Voltage Output Accuracy	± 0.005V		± 0.005V	
LxWxH	15.2x11.4x15.5in (38.5x28.9x39.3cm)		15.2x11.4x15.5in (38.5x28.9x39.3cm)	
Weight	46.5 lbs (21.1kg)		46.5 lbs (21.1kg)	



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