

Pepetools

Intelligent Plating Machines



Patent Pending

- ❖ *State of the art electronics design*
- ❖ *Ultra Precision Performance*
- ❖ *Contemporary Hi-Tech Appearance*

Exclusive Features:

- Fully Programmable* *User-friendly “one button” intuitive programming*
- Sequential Program Running Mode*◆
- Programmable Timer *
- Programmable Heater *(*Requires optional board*)
- AE Amp Meter Counter * (*Two Counters Permanent and Resettable*)
- Pulse Voltage mode
- Switchable Polarity (*In process User Selectable*)
- Maximized Output Voltage Stability
- Maximized Output Current Stability
- Self-Restoring Internal Short Circuit Protection
- Auto Detectable - Dual Voltage

* Optional features available on select models

*◆ Run up to Five Unique programs in Sequence

Quility Features:

- *Digital integrated bright LCD readout display*
- *Ultra precision Control to the hundredth (.01) of a volt and amp (10mV / 10mA)*
- *Voltage stabilization mode (for Maximized Voltage Stability)*
- *Current stabilization mode (for Maximized Current Stability)*
- *Minimal Ripple (Less than 1% ripple in voltage output - for superior results)*
- *Minimal Noise (99% Filtration)*
- *Internal short circuit protection*
- *High Efficiency Internal cooling system (Ball bearing , 37 CFM 30,000 hours Cooling Fan)*
- *High Efficiency Output*
- *High Efficiency Internal cooling system*
- *Auto-Select – Dual Voltage (105-132VAC / 200-248VAC ; 50/60Hz)*
- *Small footprint takes up less space on the bench*

Internal short circuit protection and Self-Restore function:

During the plating process, the work piece may accidentally touches the anode: the system will shut-down - those preventing sparking and damaging the work. The current is not flowing and no plating is taking place until the short is eliminated. Then the system then will self-restore and continue working with the preset values.

Programmable functions:

The fully programmable unit allows presetting up to five (5) unique programs.

In each program, the operator is able to preset Voltage and Current values; plating time; engage or disengage pulse mode and set a delay time, if needed.

Just set the values you require: Press Start Button. The unit will turn on and turn off at the pre-set time.

Amp Meter (AE) functions:

Optional Two (2) internal counters provide an important measuring function that allows user to properly maintain plating bath, regulate the thickness of the plating and also calculate the amount of material being used.

If option selected the user will have access to both: Permanent and User Resettable Amp Meter counters.

The permanent counter cannot reset and will accumulate the time for the live of the device.

Sequencing functions:

This combined function is a real breakthrough for the plating process in General.

The sequencing option allows a series of plating sessions to run sequentially – in, by the user, selectable order.

Jewelry Manufactures; Production Jewelry Shops and Artisan doing electro plating and/or electroforming will greatly benefit when using this Pepetools Power Supply.

Flush Plating: Auto Mode (fully programmable device)

- *Program 1: Set the Values for Electro cleaning Amps and Volts, Select – Reverse polarity. Set time. Approximate the time you will need to electro clean, rinse and acid dip.*
- *Program 2: Set the Values for Electro Plating Amps, Volts, and time you will need to plate.*
- *Select Sequencing Function:
Set Sequence order: Program 1; Program 2*
- *Start program. The program(s) will run as you have preset them and will stop when it is done.*

You can repeat this program as many times as you will need.

Having five (5) programs that you can sequence allows creating unique setting:

For example - Setting for Rhodium; Setting for Yellow Gold; Setting for Pink Gold; Setting for Silver

Electroforming:

The fully programmable device offers the best solution for electroforming process. Sequential (staged) process provides an environment for a properly controlled crystal growth and the necessary density of the deposits – both factors contribute a shiny non-pitted finish.

The Science and the Art of Electroforming:

A scientific process for Electroforming - discovered in 1810, by the father of electroforming, Professor Moritz von Jacobi in the Academy of Science, in St. Petersburg, Russia.

Used mostly by Artisans in the past - Electroforming now is widely used in many industries. ...

The Science:

The size of the crystals produced and the density of crystals deposit during electroforming process – will determine the outcome. Irregularly sized and loosely deposited crystals – will produce a dull and pitted surface. Uniformly sized and tightly deposited crystals – will produce a brilliant smooth surface.

The quality of power source largely will determine the outcome of your electroforming or plating.

Parameters & Specifications

Nominal input power	110VAC / 220VAC; 50/60Hz
Input power range	105-132VAC / 200-248VAC; 50/60Hz
Output:	
Model - UA12V10ART	10A /12VDC
Model - UA12V25ART	25A /12VDC
Model - UA12V18ART	18A /18VDC
Phase Current at nominal output	6.0A/110V
Power and voltage	3.0A/220V
Efficiency	>= 85% (Grater than 85%)
Operating Temperature	+5°C - +40°C (+40°F - +104°F)
Dimensions	10x150x260mm (W x H x D)
Weight	1.9kg (4.2 Lbs.)

Adjustable voltage stabilization mode

Output Voltage Adjustment	0.3 VDC - 12VDC UA12V10ART
	0.3 VDC - 12VDC UA12V25ART
	0.3 VDC - 18VDC UA18V18ART
Output Voltage Accuracy	>= 99% (Grater than 99%)
Output Voltage Adjustment:	
Resolution (step)	10mV
Output Voltage	
Ripple	<= 1% (Less than 1%)
Noise	<= 1% (Less than 1%)
(Under maximum load)	
Output Terminal Voltage * Instability	<= 1% (Less than 1%)
*depends on time and external factors	

Adjustable load current stabilization mode

Load Current Adjustment:	0.01 - 10A UA12V10ART
	0.01 - 25A UA12V25ART
	0.01 - 18A UA18V18ART
Load Current Accuracy	<= 1%
Load Current Adjustment	
Resolution (step)	10mA
Load Current	
Ripple	<= 1% (Less than 1%)
Noise	<= 1% (Less than 1%)
(Under maximum load)	
Load Current Instability*	<= 1% (Less than 1%)
*depends on time and external factors	

Timer adjustment

Maximum Time	9hrs 59min
Adjustment Precision	1sec

Pulse Voltage mode

Positive / Negative Pulse Duration	1sec - 90min
Adjustment Precision	1sec

Heater Input / Output

Heater Power Nominal	140W (by Nominal Input)
Temperature units (user defined)	Centigrade / Fahrenheit
Temperature Range	1 °C – 85°C / 33 °F – 185°F
Temperature Adjustment	
Resolution (step)	1°C - 1 °F
Temperature Adjustment Accuracy	+/- 1°C - +/- 2°F