

# Electroplating Power Supply

INSTRUCTION  
MANUAL

Rev 0.0

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## ***B. Precautions During Usage and Transporting***

1. Do not Subject unit to vibration and mechanical stress as it is a custom built product designed for Table use.
2. Do not expose equipment to corrosive vapors of chemicals like ammonia, Ferric Chloride etc. which will eat away all copper parts.
3. Do not use finger nails or sharp objects while operating the keys.
4. Use 230 V A. C 50 Hz +/- 10% as Supply with proper earth connection. (440V will Damage equipment).
5. Allow proper Ventilation on Backside of equipment where Fans are mounted.
6. The Black or Negative terminals of all the Four Power supplies are Common and use equipment keeping this in mind.
7. The equipment is protected against all misuse but accidental application of 230 V or 440V AC at Input will damage equipment.
8. Use Servostabilizer for stable power supply to equipment.
9. Programmed Values may be lost if unit is turned off for more than a few hours or on abrupt power fluctuations.
10. In event of Power Failure Unit has to be restarted.

### **C. Programming.**

1. Turn the Key Switch  $\nabla$  to Prog Mode.
2. Use "Select" Key  $\in$  to Select Either Amps or Time i.e. Hrs or Mts.
3. Use "Output Display Select" Key  $\notin$  to Select Power Supply to be Programmed A, B, C or D.
4. Use Increment "INC" and Decrement "DEC"  $\angle$  To set the Value.

Hold the Key for some time for Ramping Up/Down Fast

.

The Display above Indicates Current / Amps Set  $\supseteq$ .

Display below indicates Time / Hrs-Mts Set  $\subseteq$ .

5. Press Enter Key  $\nabla$  to Store Desired Value . A beep will be heard for Acknowledgment of entry.
6. Repeat same Procedure for programming Time.
7. After programming time make sure that toggle switch given for hrs/mts selection  $\subset$  is set as Required.
8. All the four power supplies can be programmed in either hrs or mts only .
8. Now Change the Power supply to be programmed using "Output Display Select" Key to "B" and Repeat same Method.
9. The Power Supplies are Programmed to be constant current sources.

Figure 1 : Programming Controls

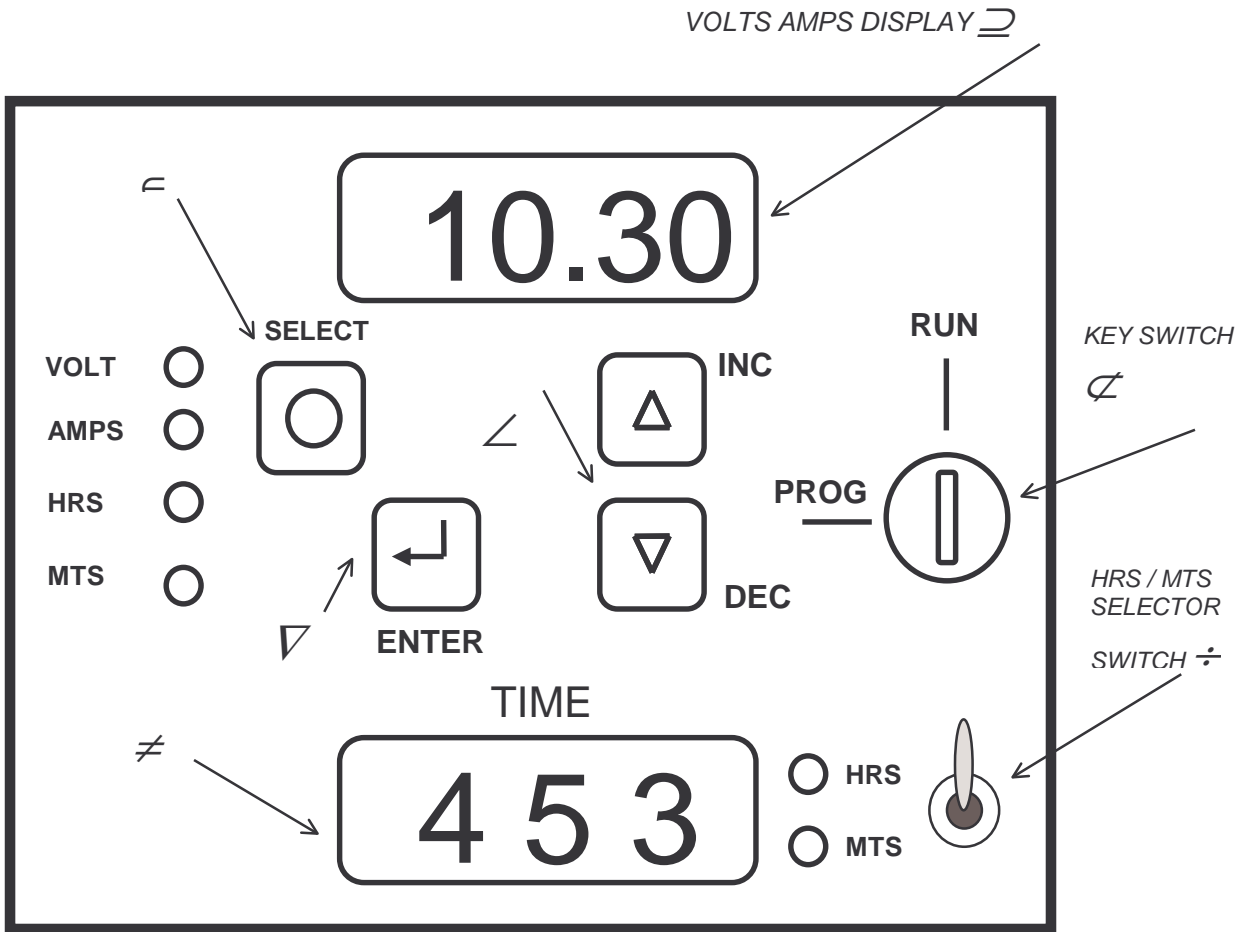
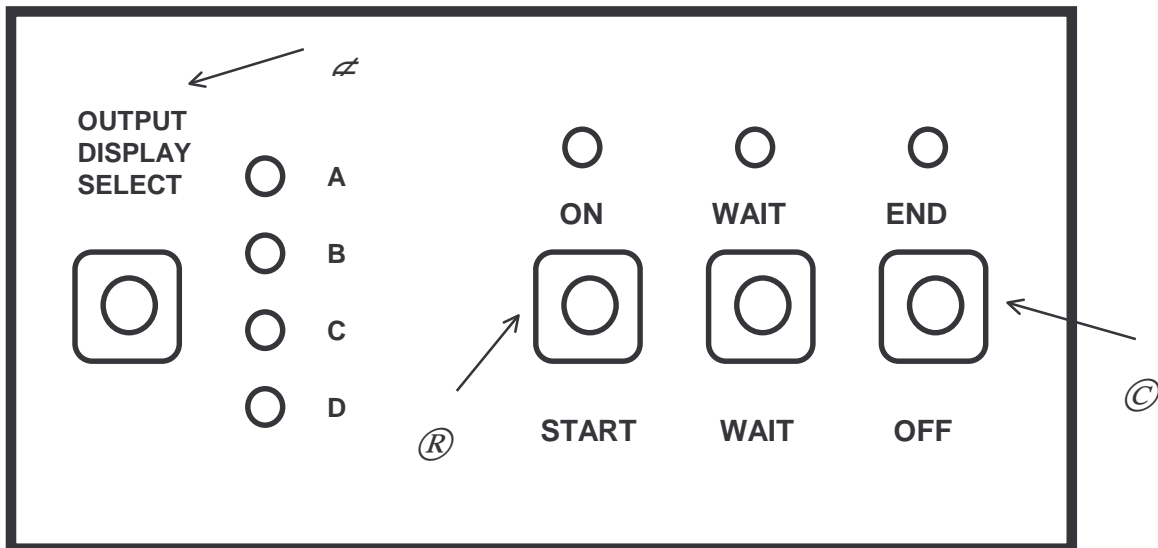


Figure 2 : Running and Starting Controls.



#### ***D. Running***

1. Turn the Key Switch  $\nabla$  to Run Mode.

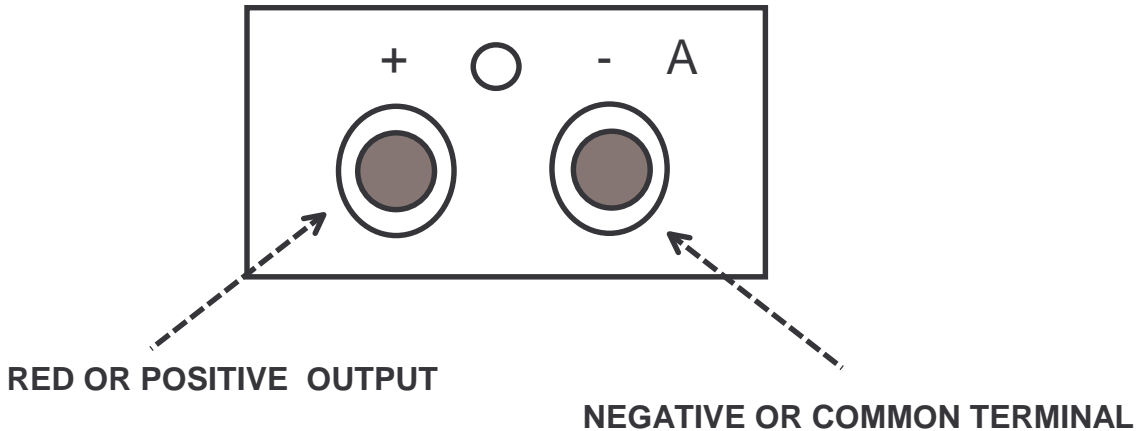
Note : Do not Change Hrs/ Mts Toggle Switch  $\subset$  after programming.

2. Press “Start ” Key  $\text{\textcircled{R}}$  to enable the unit to Turn on all power supplies for the required Time and required Current.
3. Now the Power supplies will be on for the pre-programmed time and supply programmed Current into the Electroplating bath.
4. Press “OFF”  $\text{\textcircled{C}}$  to turn off the power supply and end the program at once.
5. The Red Light near each Output terminal (*Fig 3*)Indicates that over two volts at output.
6. Press Start Again to Begin a New electroplating Cycle.
7. Press “WAIT” key to continue power supply but hold the TIME in order to get a little extra time in the middle as long as unit is in “WAIT” mode.
8. Turn off Unit when not in use by pressing “OFF”  $\text{\textcircled{C}}$ .
9. Use “Output Display Select” Key  $\nabla$  for monitoring the Actual voltage and current at each outputs A, B, C and D. By pressing this key repeatedly Select A or B .... if the keys are not pressed for some time then the Voltage and Current displays Scan A, B..... automatically.

**E. Description of Front and Back panel Components.**

**1. DC Current Outputs.**

**Figure 3 : Output Terminals**



There are four Independent DC Current Outputs

Red is the positive Terminal output.

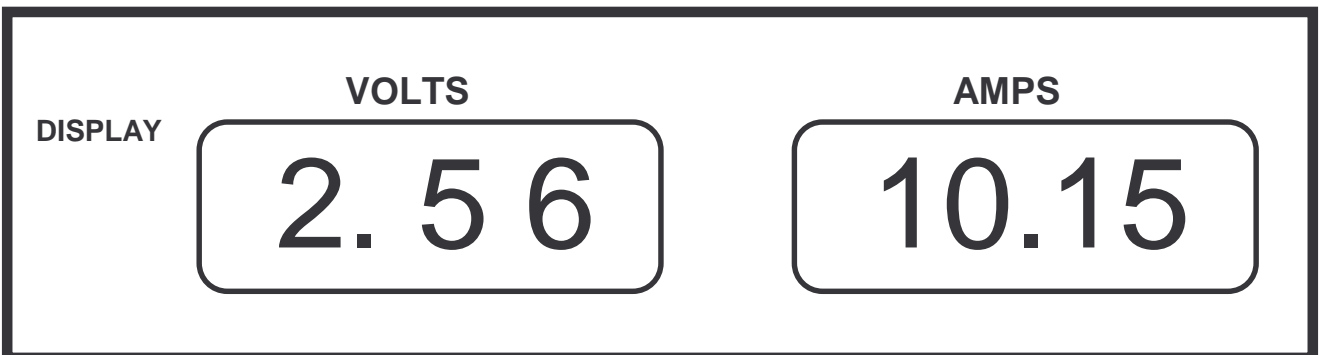
Black is the Negative Terminal and is Common for all Four supplies.

The Power Outputs are Named A, B, C, and D.

These outputs are to be connected to the plating electrodes as required.

**2. Output Voltage and Current Monitors.**

**Figure 4 : Output Voltmeters and Ammeters**



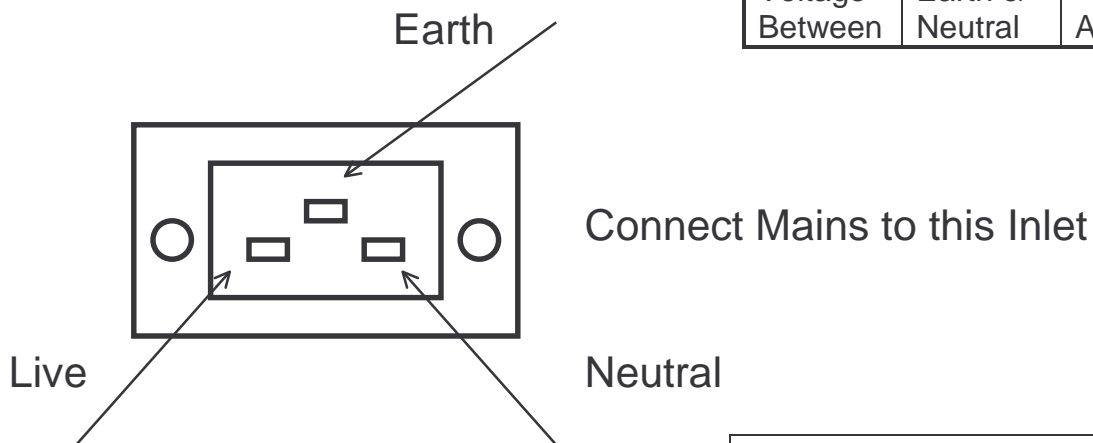
The Output of each Power Supply is Scanned automatically and this is indicated by the A, B, C, D LED's (Light Emitting Diodes) lighting "RED" one after another. When key "Display Output Select"  $\neq$  is pressed you can manually select the output to be monitored.

## 2. Rear Panel Components.

### Mains Inlet Socket

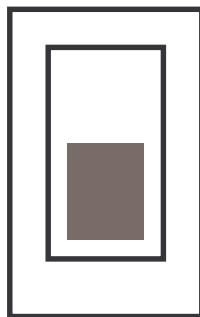
**Figure 5 : Mains Inlet Socket.**

Voltage Between	Live & Neutral	230 V AC
Voltage Between	Live & Earth	230 V AC
Voltage Between	Earth & Neutral	< 5 V AC

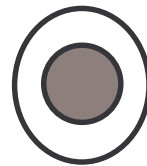


Connect Mains to this Inlet

**N DO NOT USE 440V AC**



**ON**



Fuse :  
Replace 5Amps  
Slow Blow only

Use This Switch to On and off the Equipment.

...End