

# Power Supply Tutorial (Keysight E3620A)

## Outlines:

- ✓ What is D.C power supply?
- ✓ Power supply basics
- ✓ Operation

### ✓ What is D.C power supply?

It is a device that transforms the A.C input ( $\sim 120$  V) into a D.C output, and keep the D.C output independent from changes of:

- A.C supply
- Load current drawn by output
- Temperature

### ✓ Power supply basics

Our Power supply model (E3620A) provides:

- 50 W dual output
- 0-25 Vd.c voltage range
- 1 Amp output current

Figure (1) illustrates the function of each pushbutton of E3620A power supply.

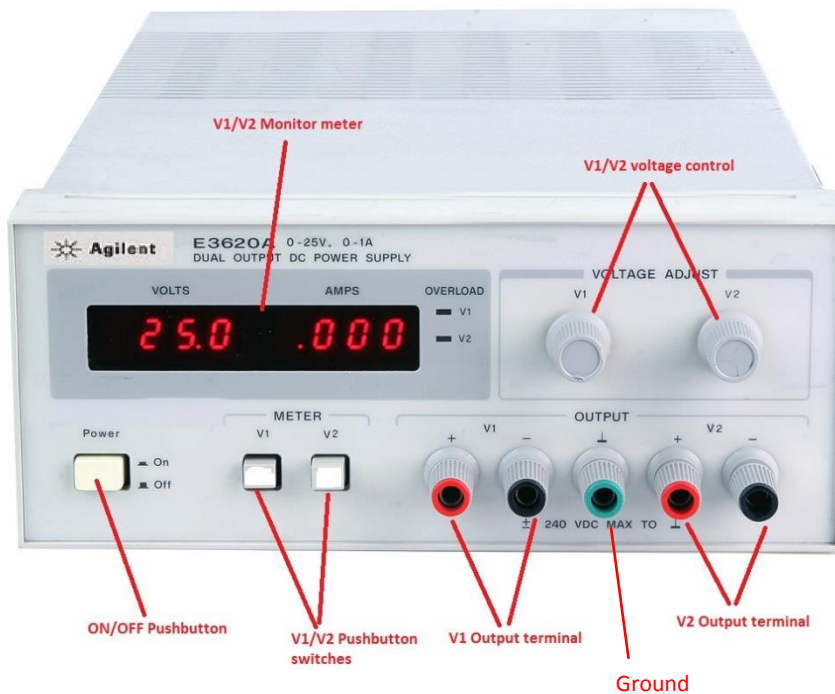


Figure (1): The front panel of E3620A power supply

- ✓ Single output terminal (V1 or V2) might be used at time, but both terminals can be connected together in parallel or series to increase the output current or voltage respectively.
- ✓ Each output can be floated (up to 240 volts off ground) or, the + or - terminal of either output can be grounded to the chassis ground terminal which is located on the supply's front panel

### ✓ Operation

- 1- Switch the power supply ON
- 2- Select either V1 or V2 switch by pushing its button
- 3- The voltage is adjusted using V1/V2 knobs
- 4- The value of voltage can be monitored through the screen