HP 6235A DC Power Supply Tutorial

1 Introduction

The DC power supply is simple, so this tutorial only contains a few bulleted notes and a simple example. There is an image of the front panel interface in Figure 1.

2 Interface Notes

• The power supply can output independent values on the +6V and ±18 V outputs, adjusted with separate knobs. All outputs are always “on,” though the analog meter can only display one value at a time.

• For the 18 V outputs, use the blue numbers on the analog meter. For the 6 V output, use the black numbers.

• The Track knob is used to set the −18 V output as a proportion of the +18 V output setting. If the +18 V output is set to 9 V, then the −18 V output will be −9 V when the Track knob is turned all the way clockwise. The −18 V output can be moved closer to zero (COM ground) by turning the Track knob counterclockwise.

• The power supply can be switched into a current-source mode by toggling the V/A button on the left side of the METER section. For these labs you will only use the voltage mode, so the button should always be out.

Figure 1: HP6235A front panel.
3 Examples

Here are all of the steps necessary to set up $+9 \text{ V}$ and $-9 \text{ V}$ supply rails.

1. Turn on the power supply with the lower-left power button.

2. Check to be sure the V/A button in the METER section is out.

3. Press the $+18 \text{ V}$ button in the METER section to view the voltage setting for that output. Move the $\pm 18 \text{ V}$ knob until the needle points to the blue 9 marking at the top of the meter.

4. Press the $-18 \text{ V}$ button in the METER section to view the voltage setting for that output. Adjust the TRACK knob all the way clockwise, and verify that the needle points to the blue 9 marking at the top of the meter.

5. Connect cables to the $+18 \text{ V}$ and $-18 \text{ V}$ output ports, which will be $+9 \text{ V}$ and $-9 \text{ V}$, respectively.

6. The power supply has a floating ground, so you can cascade them in series to reach higher voltages. Other equipment is earth-grounded.