

# SIMPLE POWER SUPPLY

Electronic Kit | Data Sheet

PRODUCT IMAGE



SCAN FOR INSTRUCTIONS  
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SCAN FOR RESOURCE PAGE



MANUFACTURER	MitchElectronics
COUNTRY OF ORIGIN	United Kingdom
ROHS / REACH COMPLIANT	Yes
PRODUCT DESCRIPTION	<p>While power sources such as 9V and AA batteries can be used to power some kits directly not every kit can handle these unregulated voltages. For example, any kit with an active buzzer requires a 5V source and some other kits (such as the M602 Door Bell) can only handle up to 4V! Generating these voltages can be cumbersome and any project that requires more than a single 5V source may prove challenging. This is where the Simple Power Supply comes in! This kit is directly powered from a 9V battery and provides many different outputs including 9V Out, -9V (approx), 5V Out, and 3.3V Out.</p> <p>This kit generates the 3.3V with the use of the AMS1117 which is an SMD part. However, this is a very easy component to solder (arguably one of the easiest SMD parts to solder) and can provide great soldering practice for surface mount devices!</p>

## PRODUCT SPECIFICATION:

- Component Count: 42
- Battery Powered?: Yes, 9V PP3
- Operating Voltage: 7V to 16V
- Operating Frequency: N/A
- Output Voltage: 9V, -9V, 5V, 3.3V
- Output Current: 100mA all rails except -9V
- Dimensions (PCB) : 59mm x 43mm
- Mounting Holes: Yes
- Prebuilt: No – Kit form
- Batteries Not Included

## PARTS INCLUDED:

- 1 x 8 DIP Socket
- 1 x 555
- 1 x 2N3904
- 1 x 2N3906
- 1 x 7805
- 1 x AMS1117
- 1 x 100R Resistor
- 4 x 1K Resistors
- 1 x 100K Resistor
- 1 x 1nF Capacitor
- 7 x 100nF Capacitors
- 3 x 100uF Capacitors
- 1 x 470uF Capacitor
- 5 x 1N5817 Diodes
- 3 x Green LEDs
- 1 x Small Slide Switch
- 3 x Red Wire
- 1 x Blue Wire
- 3 x Black Wire
- 1 x PP3 Connector
- 1 x PCB

## APPLICATIONS

The Simple Power Supply is an ideal first kit to get if other MitchElectronics kits are to be used (as many other kits require a 5V or 3V source). The Simple Power Supply is also ideal for students who need to practice soldering as well as understand how power circuits work. Furthermore, the mounting holes on the Simple Power Supply combined with the various outputs makes this kit ideal for use with DT projects that combine multiple elements including circuit construction, enclosure design, and crafting in order to create a small safe power supply.

## KIT INSTRUCTIONS

<https://mitchelectronics.co.uk/resources/simple-power-supply-kit-instructions/>

## ELECTRONICS CONSTRUCTION MANUAL

<https://www.mitchelectronics.co.uk/documents/electronicsConstructionManual.pdf>

## NOTES

Note that product specifics such as output frequency depend on the tolerance of the components. The numbers provided here are an approximation only. Also take note that the estimated delivery is not guaranteed (unless special delivery is chosen) and free delivery has a maximum waiting time of two weeks. Any product that is returned which is built using lead solder is ineligible for a refund.

All parts sold by MitchElectronics are compliant with RoHS and REACH directives which ensure that they can be used in commercial environments as well as complying with environmental laws.