

Bench Power Supplies

Order code	Manufacturer code	Description
85-1715	n/a	DUAL RAIL 1A POWER SUPPLY RE

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The enclosed information is believed to be correct, Information may change without notice due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 20/02/2007

85-1715 Multi Output Stabilised Supply

Specification

Input

Supply Voltage 230V a.c.
 Supply Frequency 50Hz
 Maximum Power 50W
 Panel Fuse Rating 2A quick blow
 Mains Plug Fuse Rating 3A

Output

Voltage +/- 5V, 12V, 15V smoothed and regulated d.c.
 Maximum Output Current 1A per rail

Electromagnetic Compatibility

The use of this apparatus outside the classroom, laboratory, study area or similar such place invalidated the conformity with the protection requirements of the Electromagnetic Compatibility Directive (89/336/EEC) and could lead to prosecution.

Getting Started

The unit is designed for 240V a.c. 50Hz operation only (a 120V version is available to special order).

Plug in the unit and switch on using the rocker switch on the front panel. If all is correct, the rocker switch should illuminate, showing that the mains is present

Using the Unit

The unit delivers +15V, +12V, +5V, 0V, -5V, -12V and -15V through separate terminals. This configuration provides a large range of voltage combinations in single, symmetrical dual and asymmetrical dual rail operation (see chart below). A maximum of 1A per rail is available. In the case of a short circuit, the particular rail(s) involved will automatically shut down, but other unaffected outputs will continue to supply current.

The outputs are available from colour coded, 4mm terminal posts coloured red for positive, blue for 0V and black for negative.

PROLONGED SHORT CIRCUIT CONDITIONS SHOULD BE AVOIDED.

Single Rail Operation Grid

Volts	Max Current	red +15	red +12	red +5	blue 0	black -5	black -12	black -15
3	10mA						+	0
5	1A			+	0			
7	10mA					+	0	
10	1A			+				
12	1A				+		0	
15	1A				+			0
17	1A			+			0	
20	1A			+				0
24	1A		+				0	
27	1A	+					0	
30	1A	+						0

Dual Rail Operation Grid

Volts	Current	red +15	red +12	red +5	blue 0	black -5	black -12	black -15
5-0-5	1A+1A			+	0	-		
10-0-10	1A+10mA			+		0		-
12-0-12	1A+1A		+		0		-	
15-0-15	1A+1A	+			0			-
17-0-3	1A+10mA			+			0	-
24-0-3	1A+10mA		+				0	-
27-0-3	1A+10mA	+					0	-
7-0-5	10mA+1A		+	0	-			
10-0-5	10mA+1A	+		0	-			
12-0-5	1A+1A		+		0	-		
15-0-5	1A+1A	+			0	-		
3-0-7	10mA+10mA	+	0	-				
5-0-7	1A+10mA				+	0	-	
10-0-7	1A+10mA			+		0	-	
17-0-7	1A+10mA		+			0	-	
20-0-7	1A+10mA	+				0	-	
5-0-10	1A+10mA				+	0	-	
17-0-10	1A+10mA		+			0	-	
20-0-10	1A+10mA	+				0	-	
3-0-12	10mA+1A	+	0	-				
5-0-12	1A+1A			+	0		-	
15-0-12	1A+1A	+			0		-	
5-0-15	1A+1A			+	0		-	
12-0-15	1A+1A		+		0		-	
7-0-17	10mA+1A		+	0			-	
10-0-17	10mA+1A	+		0			-	
7-0-20	10mA+1A		+	0			-	
10-0-20	10mA+1A	+		0			-	
3-0-34	10mA+1A	+	0				-	
3-0-27	10mA+1A	+	0				-	

Key

+	positive voltage output
-	negative voltage output
0	zero volts reference point

Suggested Use

The unit is designed for powering all types of electronic circuits including transistor, CMOS, TTS, linear integrated circuits and power amplifiers (within the power output range of the unit). The range voltages present offer opportunities for demonstrating clipping due to asymmetrical power supply rails etc.

Fusing

The unit is protected by a 2A quick blow fuse. The fuse is mounted in a tamperproof fuse holder on the back panel.

Should the unit's mains neon not light when the unit is switched on, then proceed as follows:

1. Unplug the unit from the mains.
2. Check the mains plug fuse - this should be replaced with a 3A fuse.
3. Unscrew the fuse holder and inspect the fuse. Replace if necessary.

Electrical Safety Testing

The unit is classified as Class 1 for the purposes of safety testing. Suitable earth test points are the two metal ends of the handle or the feet securing screws on the underside. For further details on safety testing, please refer to Health and Safety Executive leaflet GS23 (ISBN 0 11 883567 X).