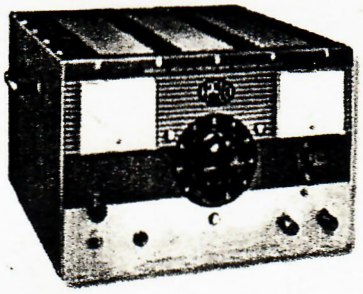
MODEL NFB, NFBR
Filtered D.C. Power Supply

OPERATING INSTRUCTIONS



EPSCO INCORPORATED
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UNIT 2A
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Model NFB and NFBR

Filtered D.C. Power Supply

GENERAL

The *Epsco Model NFB* provides a very well-filtered adjustable source of **0-32 volts** D.C. for current loads from **0-15 amps**. The *Model NFB* was designed for the operation and testing of aircraft and other electronic equipment such as receivers, amplifiers, modulators, transmitters, etc. It has many other uses where a **0-32 volt** source is required such as electroplating, telephone circuits, relays, solenoids, etc.

SPECIFICATIONS

Power Requirements	*117 volts, 60 hertz*
D.C. Output	*0-32 volts at 15 amps*
A.C. Ripple	*max. 0.75% at rated load*
Load Regulation	*0.4 volts/amps*
D.C. Impedance	*0.4 ohms*
Size	*9.75 in x 14.25 in x 14.25 in*
Weight	*NFB = 64 lbs, NFBR = 77 lbs*

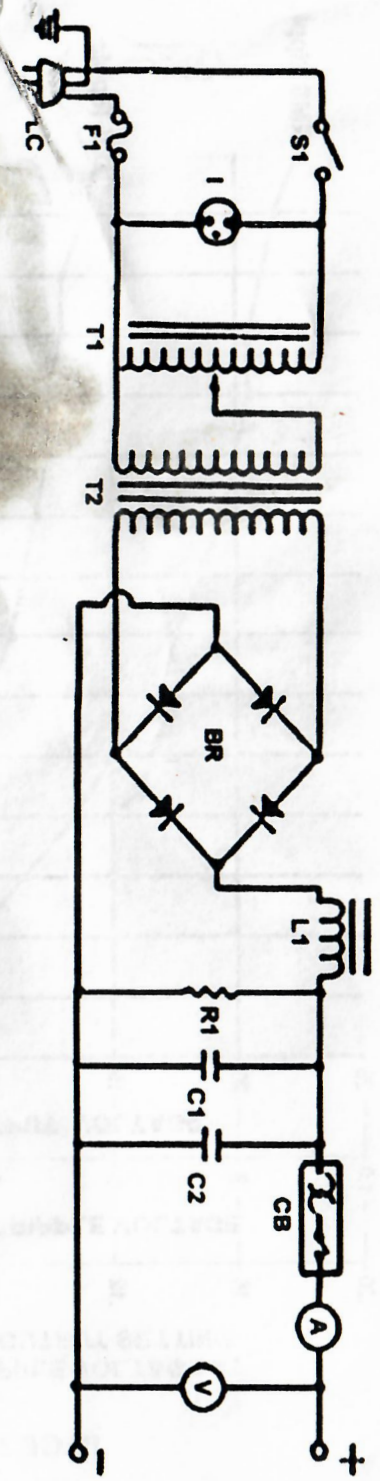
DESIGN

Model NFB utilizes the latest type of silicon rectifying elements which provide the following advantages:

* ***Controlled reverse breakdown characteristics*** - less susceptibility to inverse transient voltage damage.
* ***High efficiency*** - less voltage drop and power loss in the rectifier.
* ***High reverse resistance*** - leakage current is negligible.
* ***Stability*** - the forward and reverse characteristics do not change with time.
* ***Wide temperature range*** - silicon units allow operation over wide temperature ranges.

Possible damage due to heavy overload currents is minimized by the use of a quick response circuit breaker in the D.C. output circuit.

MODEL NFB SCHEMATICS



PARTS LIST

SYMBOL	DESCRIPTION	PART NO.	SYMBOL	DESCRIPTION	PART NO.
A	AMMETER 0-25A DC	69.001A	LC	LINE CORD	16.005
C1	CAPACITOR 10,000UF 50V	20.061	R1	RESISTOR 25 OHMS 200W	66.008
C2	CAPACITOR 10,000UF 50V	20.061	S1	SWITCH (SPST) ON/OFF	28.002
CB	CIRCUIT BREAKER	19.017	BR	BRIDGE RECTIFIER	12.072
F1	FUSE 8AMP 250V	17.007	T1	VARIABLE AUTOTRANSFORMER	04.012
I	INDICATOR LIGHT	59.009	T2	POWER TRANSFORMER	01.060
L1	FILTER CHOKE	05.047	V	VOLTMETER 0-50 DC	69.001V

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FRONT PANEL CONTROLS

On/Off Switch - Enable or disable A.C. voltage to power supply

Line Fuse - Protects the power supply from shorts and overloads

Pilot Light - Neon indicator lights when line power is on

Output Voltage Control - Clockwise rotation increase output voltage

Voltmeter - *0-50V* accurate to *2%* of full scale, monitors output voltage

Ammeter - *0-25A* accurate to 2% of full scale, monitors output current

Circuit breaker - Trips within 5 seconds at 120% of rated load

Output Terminals - Two 5-way "floating" binding posts

PERFORMANCE

Graph on next page describes DC output voltage variation and AC ripple voltage as a function of DC output currents for several output settings.

OPERATION

Place the ***Model NFB*** in a location where it will receive good ventilation. Do not cover the top or bottom of the power supply in any way since this unit utilizes a "*chimney effect*" for cooling. When the power supply is operated at ambient temperatures above *35* degrees *Celsius*, the output current must be de-rated by *0.15A* per degree of *Celsius*.

CAUTION: Always return center control knob fully counter-clockwise before turning unit on/off or when changing the load. This will prevent the possibility of damage resulting from high transient currents or voltages which may be present.