TRANS WORLD COMMUNICATIONS, INC.

PF100
HEAVY DUTY POWER SUPPLY

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DESCRIPTION

The PF100 is an efficient power supply used in conjunction with the TW100 FSK Transceivers. The power supply is designed to supply a nominal 13.6V at 16A continuous service.

CIRCUIT

The PF100 uses two separate power transformers and bridge rectifiers with the outputs connected in parallel. The filtering is provided by a 110,000 microfarad computer grade filter capacitor. The design is simple with no active components and gives high reliability. It should be noted that the output is unregulated and should only be used with the PF5100, or similar equipment, with internal regulators designed for operation with this type of power supply. The internal cooling fan runs continuously whenever AC power is supplied. The fan is permanently wired across the primary of one of the transformers. A removable fan filter guard allows for easy replacement or cleaning of the filter.

SERVICING

The power supply delivers approximately 20V unloaded and 14V at 16A output.

CAUTION

Check that the PF100 is connected for the correct supply voltage (see schematic).

For 110V operation, use a 5A fuse. For 230V operation, use a 3A fuse.

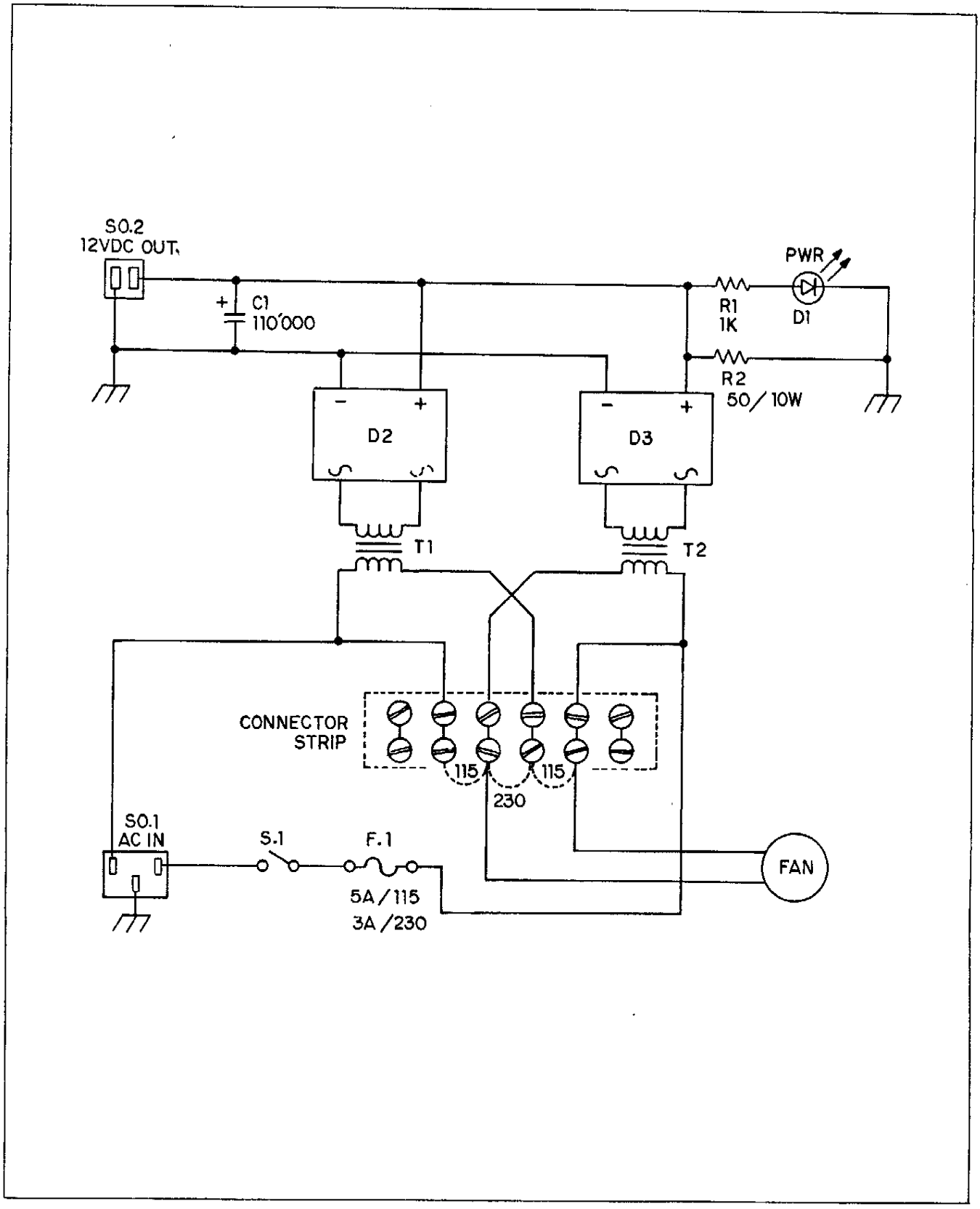

FIGURE 13. Schematic Diagram, Heavy Duty Power Supply.

TABLE 7. Parts List, Heavy Duty Power Supply.

C1	D230114	Capacitor, 40V 110K
D1	320407	Diode, LED
D2	320501	Diode, Bridge 100V 35A
D3	320501	Diode, Bridge 100V 35A
F1	550003	Fuse, 3AG 3A (230V)
	550005	Fuse, 3AG 5A (110V)
R1	124102	Resistor, Film 1/4W 5% 1K
R2	D160500	Resistor, Wirewound 10W 5% 50
T1	D410012	Transformer,12V
T2	D410012	Transformer,12V

Note: Unless otherwise specified, capacitance is in microfarads and resistance is in ohms.