



## **DC POWER SUPPLY**

# **PS-30**

**OPERATING MANUAL**

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The PS-30 DC Power Supply has been carefully engineered and manufactured under rigid quality standards, and should give you satisfactory and dependable operation for many years.

Before placing the equipment in service, we suggest you read through this operating manual to become acquainted with correct operation.

Should any trouble arise with the unit, please contact your dealer, or the nearest KENWOOD service facility, or the factory service facility.

**NOTE:** There are two versions of the PS-30; a 120/220V line model and a 220/240V line model.

## **AFTER UNPACKING**

Save the boxes and packing in the event your unit needs to be transported for temporary operation at a remote location, maintenance, or service.

# INTRODUCTION

The Model PS-30 is a regulated DC power supply designed to match the KENWOOD TS-120S or TS-180S transceiver and provide reliable fixed-station operation. External output terminals (5 A max.) for operation of additional equipment are also provided.

# CAUTIONS

1. The PS-30 will not operate if the output terminals are shorted.

When the power switch of the PS-30 is turned on, make sure that the transceiver's power switch is OFF; otherwise, an output current of more than 2A will flow into the transceiver and signals are transmitted if the transceiver is set in transmit mode.

Turn on the transceiver's power switch after the PS-30 is turned on.

Also, the PS-30 will not operate if the PS-30 power switch is turned on after the transceiver (in transmit mode) is turned on because of the use of a protection circuit.

2. The fuses will blow if the unit is overloaded.
3. Allow sufficient space behind the unit and install in a well-ventilated location.
4. Use the heaviest and shortest DC power cable possible.

If power cable length is excessive, the output voltage will drop or induced RF energy may cause premature protective shutdown of the PS-30.

5. When connecting two or more transceivers to the unit or when using the supply for any other purpose, check that the operating current is below the rated current limit.
6. If the unit is operated without a load, approximately 16 V appears at the output. This is normal and is not an indication of trouble.

# INSTALLATION

Turn the Power Switch OFF before making connections. Connect the AC power cord as shown in Fig. 2. Fig. 3

**Note:** When connecting the unit to the TS-120V (10-W model), use the DC cable supplied with the transceiver.

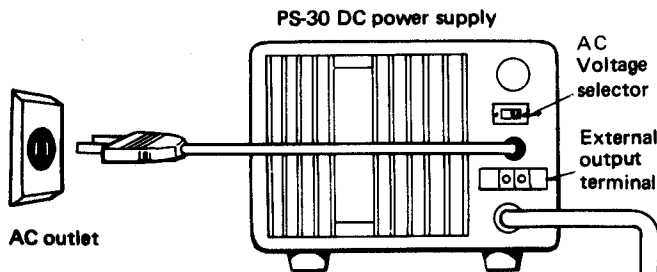


Fig. 2 Connection

# BEFORE USING

The following accessory items are included

Operating manual	..... 1 copy	
Fuse (6A)	..... 1 piece	120/220
Fuse (4A)	..... 1 piece	VAC line model
		220/240
		VAC line model
Extension feet	..... 2 pieces	
Screws, 4mm diameter	.... 2 pieces	

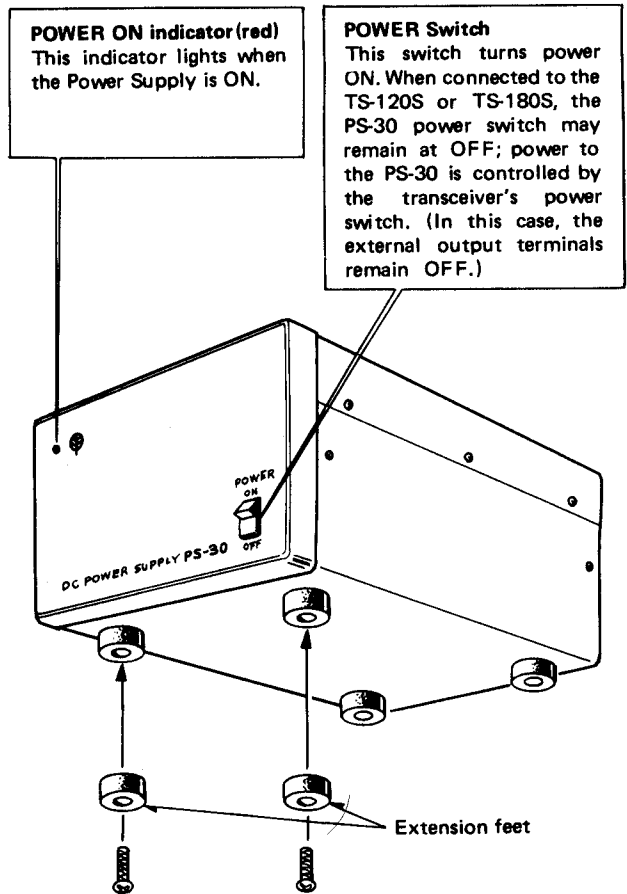
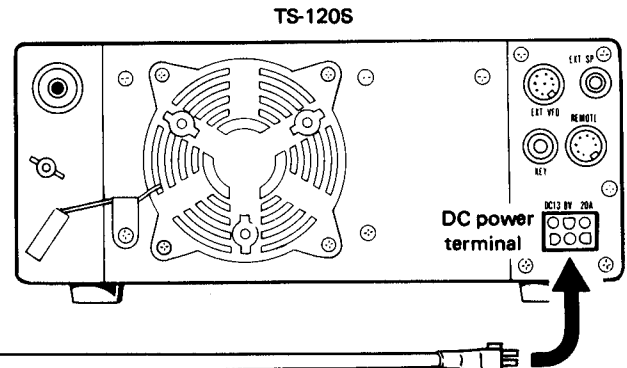
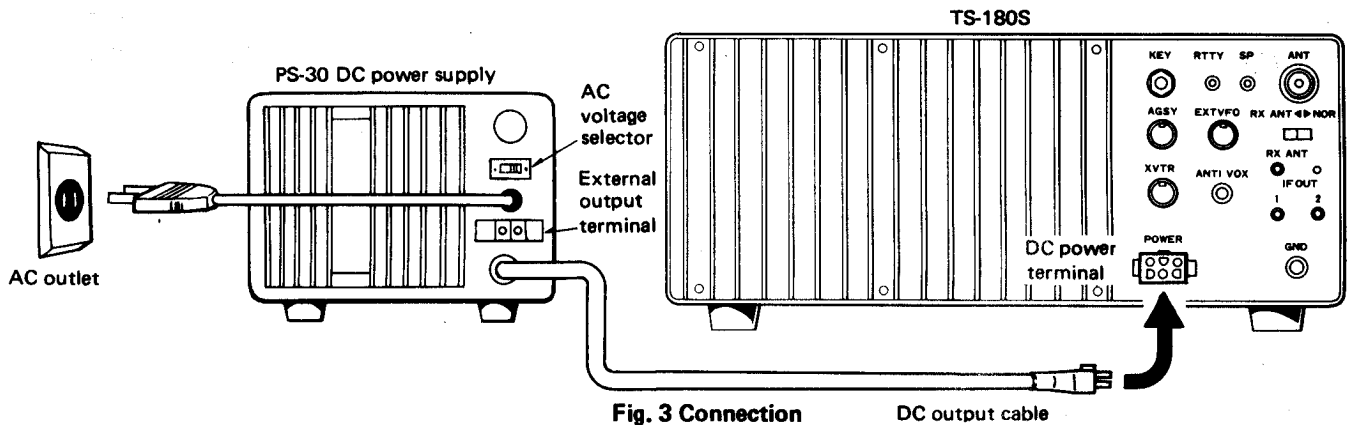


Fig. 1



DC output cable



## MAINTENANCE

1. The supply is equipped with a 6-A or 4-A AC fuse and a 20-A DC fuse. If either one or both blow, DISCONNECT the AC power cable and check for cause before replacing the defective fuse. (Replacement fuses are available from your authorized KENWOOD dealer or service station.)

NEVER use a fuse of higher rating.

2. The unit is designed to deliver 13.8 VDC at 20 A. If, at some future date, the supply should require adjustment, consult your dealer or the nearest KENWOOD service station.

## ADDITIONAL INFORMATION

### 1. GENERAL INFORMATION

Your PS-30 has been factory adjusted and tested to specification before shipment. Under normal circumstances, it will operate in accordance with these operating instructions.

If your power supply fails to work, contact the authorized dealer from which you purchased it for quick, reliable repair.

All adjustments were preset at the factory and should only be readjusted by a qualified technician with proper test equipment.

Attempting service or adjustment without factory authorization can void the power supply's warranty.

### 2. ORDERING SPARE PARTS

When ordering replacement or spare parts for your equipment, be sure to specify the following:

Model and serial number. Schematic number of the part. Printed circuit board number on which the part is located. Part number and name, if known, and Quantity desired.

### 3. SERVICE

Should it ever become necessary to return the equipment for repair, pack in its original box and packing, and include a full, detailed description of the problems involved.

You need not return accessory items unless they are directly related to the service problem.

#### NOTE:

When claiming warranty service, please include a photocopy of the bill of sale, or other proof of purchase showing the date of sale.

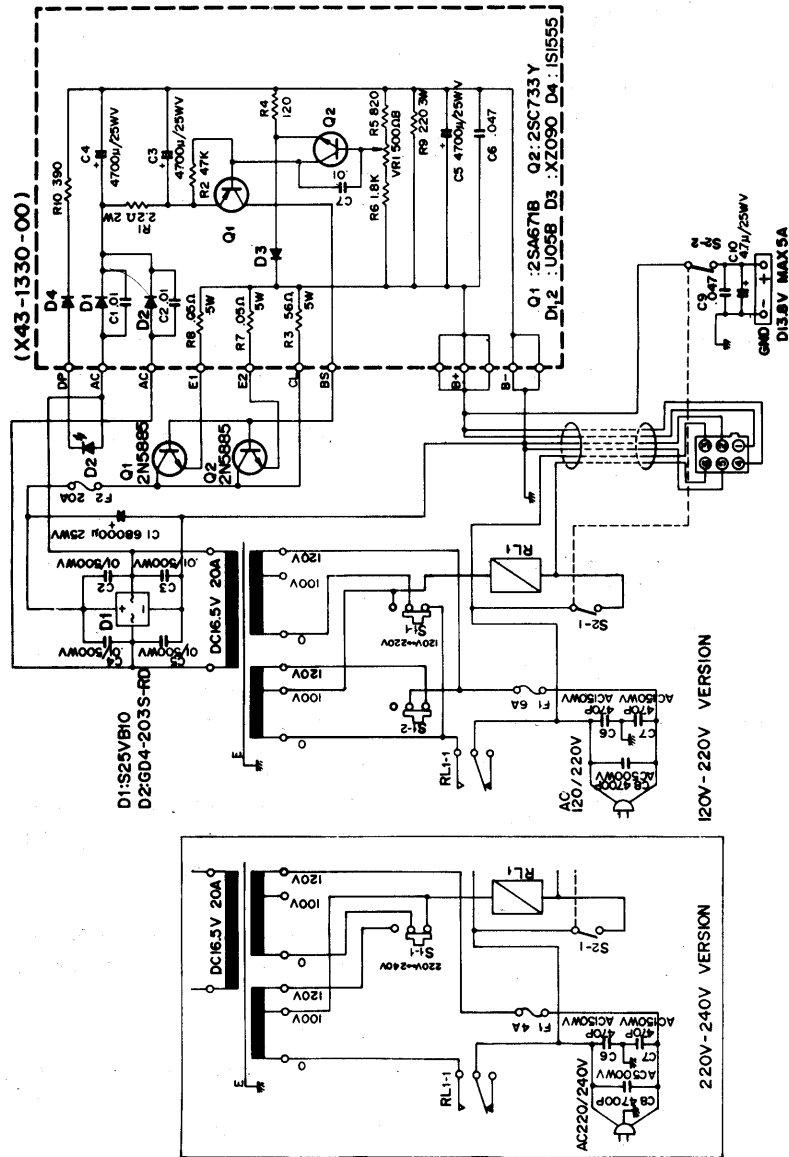
## SPECIFICATIONS

Input voltage:	120/220/240 VAC $\pm$ 10%, 50/60 Hz
Output voltage:	13.8 VDC (standard voltage)
Output current:	20 A (50% duty cycle)
Continuous load current:	15 A max. (including external output terminal)
Output voltage fluctuation:	Within $\pm$ 0.7 V at AC 120V, 220V, 240V $\pm$ 10% (Load current: 15 A) Within 0.7V between 2–15 A load. (No-load output voltage: Less than 16 V at 120/220/240 VAC)
Ripple voltage:	Less than 20 mV (rms) at 13.8 V, output current 15 A.
Power consumption:	Approx. 470 W (at 120/220/240 VAC, 13.8 VDC, 20 A)
Dimensions:	180 (7-1/8)W x 133 (5-1/4)H x 287 (11-5/16)D mm (inch)
Weight:	Approx. 8.9 kg (20 lbs.)

\* Circuit design and ratings are subject to change for improvement without notice.

# SCHEMATIC DIAGRAM

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A product of  
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