

DC POWER SUPPLY
PS-50

INSTRUCTION MANUAL

KENWOOD CORPORATION

SCHEMATHEEK
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KENWOOD

Thank you for purchasing the new PS-50 DC power supply. Please read this instruction manual carefully before placing your DC power supply in service.

This unit has been carefully engineered and manufactured to rigid quality standards, and should give you satisfactory and dependable operation for many years. Should any trouble arise with the unit, please contact your dealer.

■ AFTER UNPACKING

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

■ INTRODUCTION

The PS-50 is a regulated DC power supply designed to match the KENWOOD transceivers and provide reliable fixed station operation. External output terminals (16A max.) for operation of additional equipment are also provided.

■ ACCESSORIES

Check that the PS-50 is supplied with the following accessories.

1. AC power cable 1 pc.
2. Fuse (6A) (F05-6021-05).... 1 pc.
Fuse (4A) (For 220/240V version)
..... (F05-4022-05).... 1 pc.
3. Warranty card..... 1 copy
4. Instruction manual..... 1 copy

■ INSTALLATION

Caution:

1. Turn the POWER switch OFF before making connections.
2. Do not use the bail to carry the power supply.

Connect the AC power cable as shown in Fig. 2.

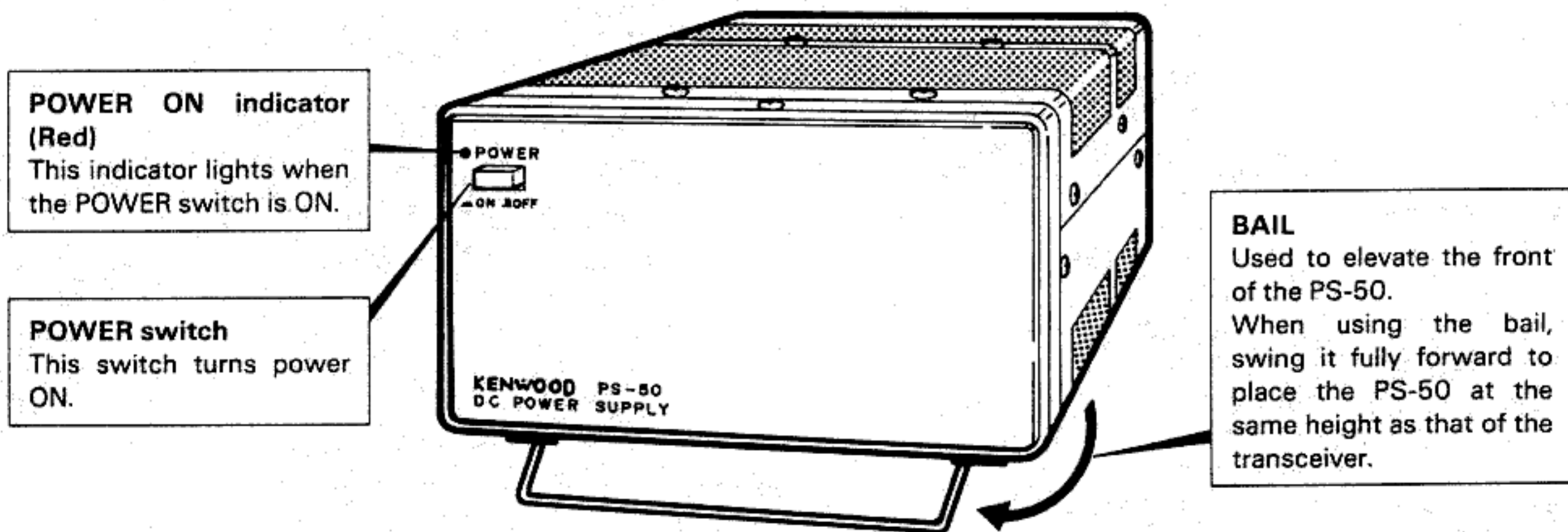


Fig. 1

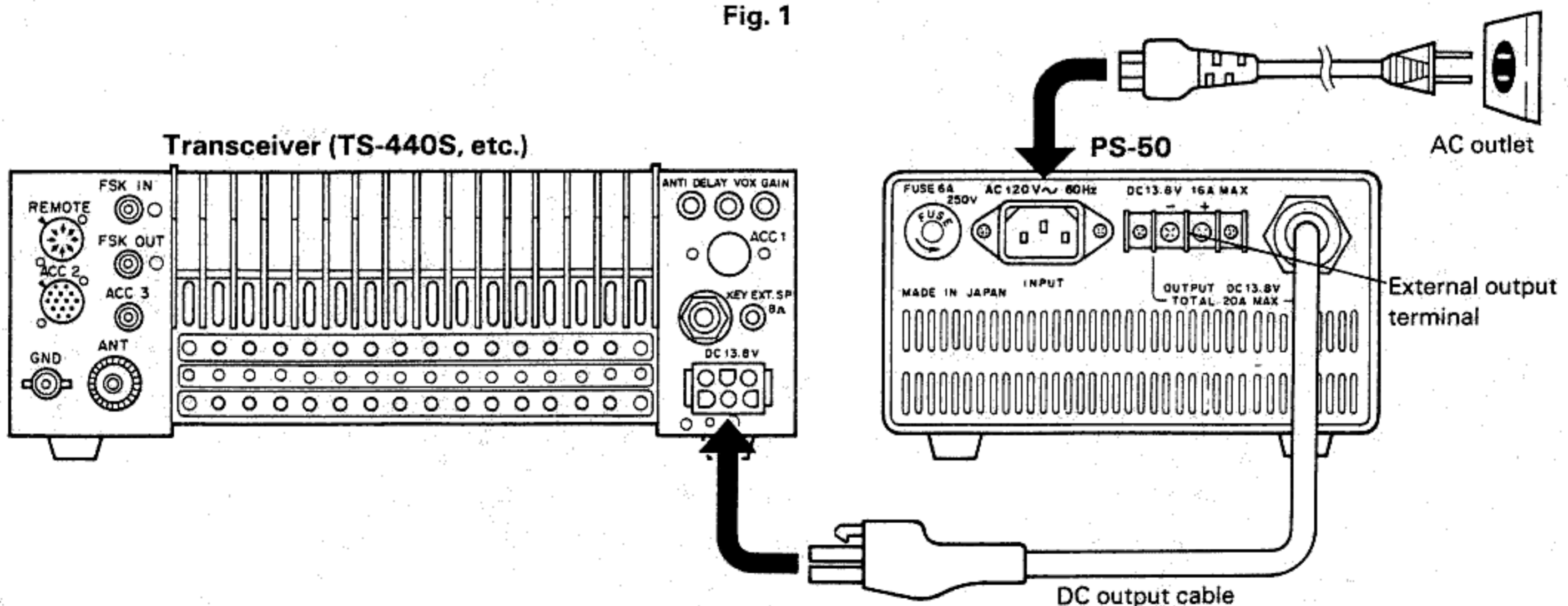


Fig. 2 Connection

■ CAUTIONS

1. The PS-50 will not operate if the output terminals are shorted.
Before the PS-50 power switch is turned ON, make certain the transceiver's power switch is OFF; otherwise, current greater than 2A may flow into the transceiver if it is in transmit mode. Secondly, the PS-50 may not operate if switched ON with the transceiver in transmit mode because the protection circuit may operate. Turn the transceiver ON after the PS-50 is turned ON.
2. If the transceiver operates at high power in the FSK mode for instance, continuously for more than 1 hour, return to the receive mode for approx. 30 minutes to allow the PS-50 to cool.
3. The fuses will blow if the unit is overloaded.
4. Allow sufficient space behind the unit and install in a well-ventilated location. Do not place any objects on top of this unit.
5. Use the heaviest and shortest DC power cable possible from the accessory terminals.
If power cable length is excessive, the output voltage will drop or induced RF energy may cause premature power supply protective shutdown.
6. When connecting two or more transceivers to the unit or when using the supply for any other purpose, check that the total operating current is below the rated current limit.

■ MAINTENANCE

1. GENERAL INFORMATION

Your PS-50 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. 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.

3. 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.

4. FUSE REPLACEMENT

- 4-1. The PS-50 is equipped with a 6A AC fuse with 120V version and a 20A DC fuse. If either one or both blow, DISCONNECT the AC power cable and check for the cause before replacing the defective fuse. (Replacement fuses are available from your authorized KENWOOD dealer.)

Caution:

NEVER use a fuse of higher rating.

- 4-2. The unit is designed to deliver 13.8V DC at 20A. If, at some future date, the supply should require adjustment, consult your dealer.

5. CHANGING THE AC OPERATING VOLTAGE (220/240V version only)

When changing an AC operating voltage, select the desired voltage with the selector switch located on the left side of this unit. In this case, the correct fuse must be installed, referring to the table as shown.

AC voltage	Fuse
120V	6A
220V 240V	4A

Notes:

1. Before changing the AC operating voltage, always disconnect the AC power cable from the AC line outlet.
2. 120V version can not be switched.

■ SPECIFICATIONS

Power requirement.....	120/220/240 VAC \pm 10%, 50/60 Hz
Output current.....	20A max. (Continuous operation for 1 hour. Includes external out- put terminal.) 16A max. (External output ter- minal)
Output voltage regula- tion	\pm 0.7V (At 120 VAC \pm 10% varia- tion with 16A load) \pm 0.7V (At load current variation from 2 to 20A)
Ripple voltage.....	Less than 20 mVrms (At 13.8 VDC, 20A)
Power consumption	Approx. 500W \pm 10% (At 13.8 VDC, 20A)
Dimensions.....	W 173 (173) \times H 95 (107) \times D 296 (329) mm. Dimensions in () include pro- jections.
Weight.....	Approx. 7.2 kg

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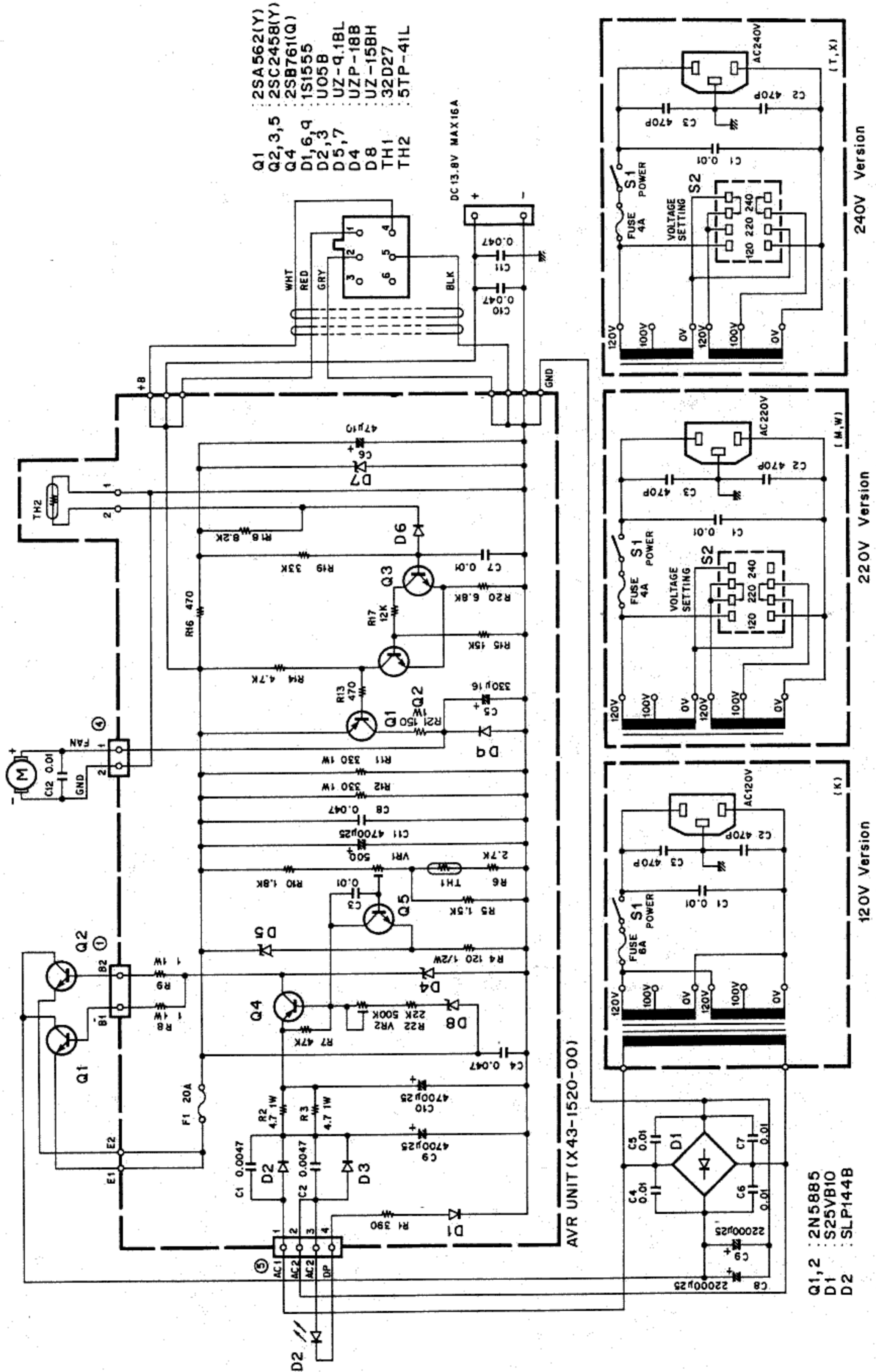
KENWOOD ELECTRONICS AUSTRALIA PTY. LTD.

(INCORPORATED IN N.S.W.)

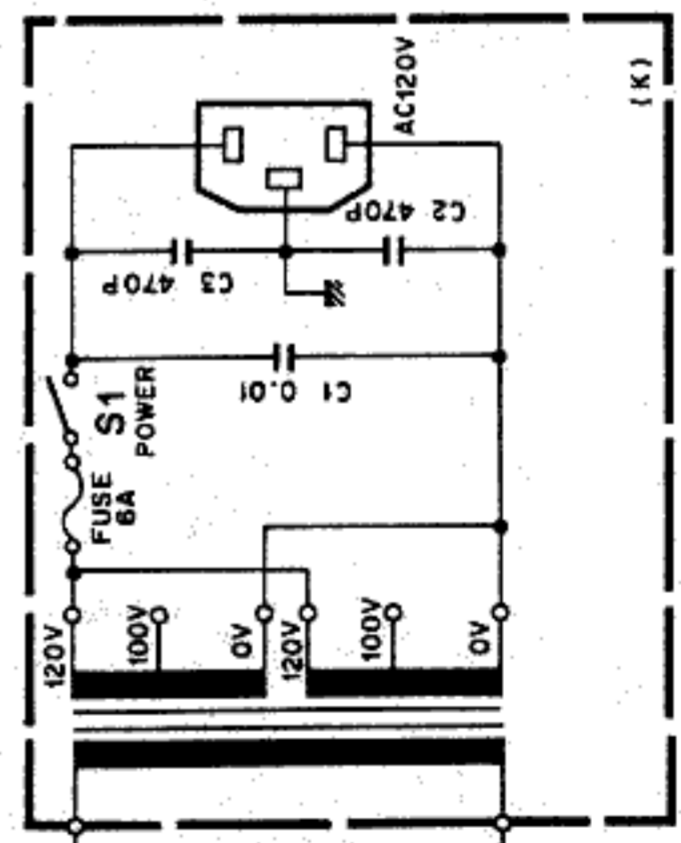
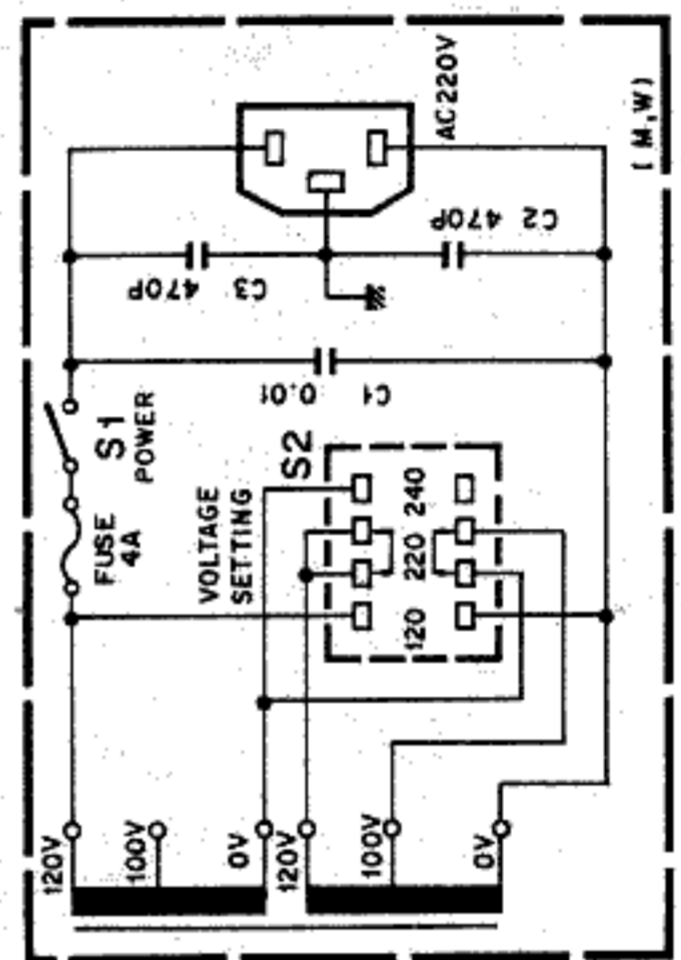
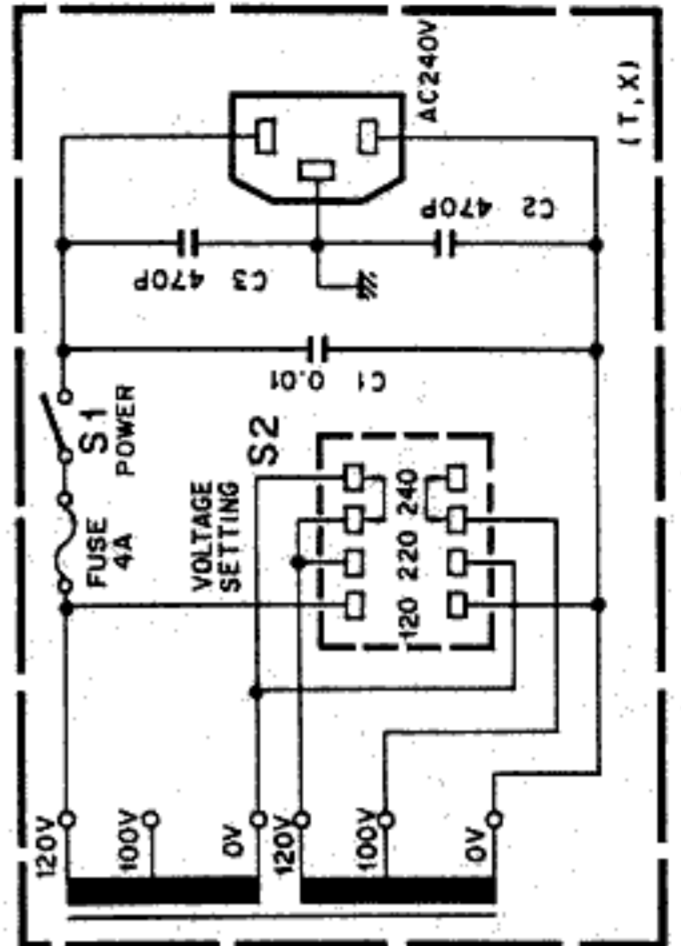
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SCHEMATIC DIAGRAM

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



- Q1 : 2SA562(Y)
- Q2,3,5 : 2SC2458(Y)
- Q4 : 2SB761(Q)
- D1,6,q : 1S1555
- D2,3 : U05B
- D5,7 : UZ-q.18L
- D4 : UZP-18B
- D8 : UZ-15BH
- TH1 : 32D27
- TH2 : 5TP-41L



- Q1,2 : 2N5885
- D1 : S25VB10
- D2 : SLP144B