

**KENWOOD**

DC POWER SUPPLY

**PS-33**

**PS-53**

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**INSTRUCTION MANUAL**

KENWOOD CORPORATION

## 2. SPECIFICATIONS AND ACCESSORIES

### 2-1. SPECIFICATIONS

VERSIONS SPECIFICATIONS	PS-33		
	U.S.A. and Canada	Europe and General markets	U.K. and Oceania
Power requirements	120 VAC $\pm$ 10%, 60Hz	*120/220~230 VAC $\pm$ 10%, 50/60Hz	240 VAC $\pm$ 10%, 50/60Hz
Output voltage	13.8 VDC (Reference)		
Rated output current	20.5 A (25% duty cycle) 15 A (50% duty cycle)		
Output voltage regulation	Within $\pm$ 0.7 V (at 120/220~230/240 VAC $\pm$ 10% variation with 15A) Within 0.7 V (at load current variation from 2 to 15A)		
Ripple voltage	Less than 20 mVrms (at 13.8 VDC/15A)		
Power consumption	Approx. 500 W (at 13.8 VDC/20.5A)		
Dimensions (W×H×D) Dimensions in [ ] include projections.	173×96×296 mm [173×107×322 mm] 6-13/16"×3-25/32"×11-21/32" [6-13/16"×4-7/32"×12-11/16"]		
Weight	Approx. 7.0 kg (15.4 lbs)		

VERSIONS SPECIFICATIONS	PS-53		
	U.S.A. and Canada	Europe and General markets	U.K. and Oceania
Power requirements	120 VAC $\pm$ 10%, 60Hz	*120/220~230 VAC $\pm$ 10%, 50/60Hz	240 VAC $\pm$ 10%, 50/60Hz
Output voltage	13.8 VDC (Reference)		
Rated output current	22.5 A (25% duty cycle) 16 A (50% duty cycle) 20.5 A max. (Continuous operation for 1 hour)		
Output voltage regulation	Within $\pm$ 0.7 V (at 120/220~230/240 VAC $\pm$ 10% variation with 16A) Within 0.7 V (at load current variation from 2 to 16A)		
Ripple voltage	Less than 20 mVrms (at 13.8 VDC/16A)		
Power consumption	Approx. 550 W (at 13.8 VDC/22.5A)		
Dimensions (W×H×D) Dimensions in [ ] include projections.	173×96×296 mm [173×107×322 mm] 6-13/16"×3-25/32"×11-21/32" [6-13/16"×4-7/32"×12-11/16"]		
Weight	Approx. 6.9 kg (15.2 lbs)		

#### NOTES

1. Rating are subject to change without notice due to advancements in technology.
2. \*: Switchable.

### 2-2. ACCESSORIES

Please unpack your new DC Power Supply carefully, and confirm that the accessories listed below are included in the box. If any of the items are missing contact the dealer where the radio was purchased.

Spare fuse, 3A (Oceania version only)	F05-3022-05	1 ea.
Spare fuse, 4A (Except U.S.A., Canada and Oceania version)	F05-4024-05	1 ea.
Spare fuse, 6A (Except U.K. and Oceania version)	F05-6021-05	1 ea.
Instruction manual	B62-0142-XX	1 copy
Warranty card (U.S.A., Canada and Europe version only)		1 ea.

After unpacking

Shipping container:

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

## 4. OPERATION

### WARNING

1. Do not operate the DC Power Supply with the packing materials attached.
2. Never remove the case. If the internal parts are accidentally touched, a serious electric shock might occur.
3. To reduce the risk of fire or electric shock, do not expose the DC Power Supply to rain or moisture.

### NOTE

For operation of the radio, refer to the Instruction Manual provided with the radio.

## CONTROL AND FUNCTIONS

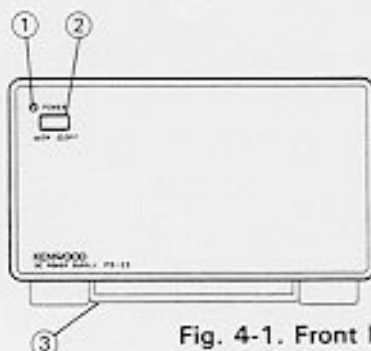


Fig. 4-1. Front Panel

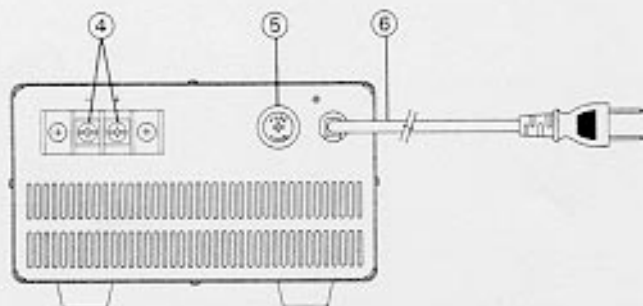


Fig. 4-2. Rear Panel

- ① POWER ON Indicator  
This Indicator lights when the DC Power Supply is on.
  - ② POWER Switch  
This switch turns power on and off.
  - ③ BAIL  
Used to elevate the front Panel.
  - ④ Output Terminals
  - ⑤ Fuse Holder  
Contains a specified fuse.
  - ⑥ AC Power Cable
1. Turn the radio POWER switch on after the DC Power Supply POWER switch is turned on.

### NOTE

If the DC Power Supply protection circuit operates, turn the POWER switches of both the radio and the DC Power Supply off, and perform the procedure above again.

2. When communication is completed for the day, turn off the POWER switches of both the radio and the DC Power Supply.

## 5. MAINTENANCE

### 5-1. GENERAL INFORMATION

Your DC Power Supply has been factory adjusted and tested to specifications before shipment. Under normal circumstances, the DC Power Supply will operate in accordance with these operating instructions. 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 DC Power Supply's warranty. If your DC Power Supply fails to work, contact the authorized KENWOOD dealer from which you purchased it for quick, reliable repair.

### NOTES

1. When claiming warranty service, please include a photocopy of the bill of sale, or other proof of purchase showing the date of sale.
2. Record the Date of Purchase, Serial Number and Dealer from whom purchased.
3. For your own information, retain a written record of any maintenance performed on the unit.

### 5-2. SERVICE

Should it ever become necessary to return the equipment to your dealer or service center for repair, pack in its original box and packing, and include a full description of the problems involved. Also include your telephone number. You need not return accessory items unless directly related to the service problem.

### CAUTION

Do not pack the equipment in crushed newspaper for shipment. Extensive damage may result during shipment.

### NOTE

If you desire to correspond on a technical or operational problem, please make your note short, complete, and to the point, and PLEASE make it readable.

Please list:

Model and Serial Number.

The problem you are having.

Please give sufficient detail to diagnose.

Information such as other equipment in the station, meter readings and anything else you feel might be useful in attempting diagnosis.

### 5-3. CLEANING

The DC Power Supply is likely to become soiled after extended use. It should be cleaned with a silicone cloth or a clean dry cloth.

#### CAUTION

Do not use volatile solvents such as alcohol, paint thinner, gasoline, benzine, etc.

### 5-4. FUSE REPLACEMENT

If the fuse blows, DISCONNECT the AC Power Cable and contact an authorized KENWOOD service facility; either your KENWOOD dealer, or the factory to repair the cause.

#### NOTE

The following instructions are for use by either your KENWOOD dealer, an authorized KENWOOD service facility, or the factory.

#### WARNING

1. Never connect the AC cable to the AC outlet until fuse replacement has been made.
2. Never use a fuse of higher rating. Replace with a new fuse of the same rating.

This DC Power Supply is equipped with a fuse listed below. If the fuse blows, check for the cause before replacing the defective fuse. (Replacement fuses are available from your authorized KENWOOD dealer.)

Version	Voltage Setting	Part Number
U.S.A. and Canada	120 VAC	F05-6021-05 (6A)
Europe and General Market	120 VAC	F05-6021-05 (6A)
	230 VAC	F05-4024-05 (4A)
U.K.	240 VAC	F05-4024-05 (4A)
Oceania	240 VAC	F05-3022-05 (3A)

#### NOTE

Fuse Holder is located on rear panel for U.S.A. version as Fig. 4-2. (5).  
Other version except for U.S.A. version, fuse holder is located inside of the top cover.

### 5-5. SUPPLY CORD REPLACEMENT (Oceania version only)

If the supply cord of this appliance is damaged, it must only be replaced by a repair shop appointed by the manufacturer, because special purpose tools are required.

### 5-6. ORDERING SPARE PARTS

#### NOTE

The following instructions are for use by either your KENWOOD dealer, an authorized KENWOOD service facility, or the factory.

When ordering replacement or spare parts for the 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.

Part Numbers for most replacement parts are contained in the Service Manual (usually available as an option from KENWOOD dealer).

## KENWOOD CORPORATION

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# PS-33/53 (DC POWER SUPPLY)

PS-33/53 Schematic Diagram

- (X43-3030-01) D1,5,8 : IS1555
- Q1 : 2SA562(Y) D2,3 : DSA3A1
- Q2,3,5 : 2SC2458(Y) D4,6 : UZ9.1BL
- Q4 : 2SB941(Q) D7 : UZ15BH

