
POWER SUPPLY AND SPEAKER UNIT

PS-500AC

OPERATING MANUAL

TRIO
TRIO CORPORATION

Manufactured by TRIO CORPORATION, TOKYO, JAPAN

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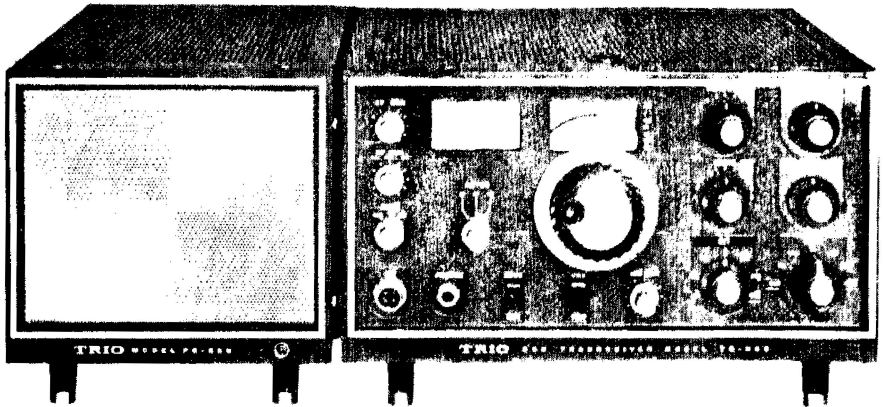
SPECIAL FEATURES

This is a companion unit of the TS-500 SSB Transceiver which contains a specially designed power supply and a 16cm communications speaker made exclusively to be used with it. Connections to the transceiver

can be easily made with a connecting cord which is supplied with this unit.

AC power switching is controlled from the transceiver.

The PS-500 AC is smartly designed to match the TS-500.



PS-500AC

TS-500

CIRCUIT DESCRIPTION

The PS-500 AC utilizes a silicon voltage doubler rectifier to supply the high 900 V requirements of the transceiver. Silicons are used in series operation (shunted by capacitors and resistors) to protect them from transient voltage damage, and enable them to withstand the peak-inverse voltages involved.

B supply lines requiring 300V and less are taken from the center of the capacitor stack. From this point, voltage dropping resistors are used in series connection to form the 200V and 150V supply lines.

A half wave silicon rectifier circuit is used to obtain block bias voltage of -120V.

Two 12.6 V, 3-ampere secondary windings of the power trans-

former are provided to supply heater voltages for the transceiver tubes.

The Power Transformer has two 115 volt primary windings, both tapped at 100 V, which provides a wide range of AC power selection. Depending on how they are connected, it enables operation of the transceiver from 100, 200, 230, and 115 volt AC line sources. In the PS-500 AC the primary windings are connected for operation from 230 volt line sources.

The power supply jack incorporates speaker line terminals, as well as the necessary power transformer primary connections so that AC power switching can be achieved from the transceiver side.

OPERATING INSTRUCTIONS

1. ACCESSORIES

The following accessories are supplied with the PS-500 AC.

Connecting Cord	1
Hyzer Legs	2
Bolts (4 mm)	2
Fuse (6A)	1
Operating Manual	1

2. HOW TO CONNECT

THE PS-500AC

Use the Connecting Cord which is supplied with the PS-500AC to connect the two units as shown in

Figure 1. All necessary connections, including those for the speaker, are incorporated within this single Connecting Cord.

This power supply and speaker unit does not have an AC switch, since ON-OFF switching is controlled at the transceiver.

CAUTION

Be sure that AC power is shut off and the line cord is removed from the power outlet whenever it is desired to make an interior check of the PS-500 AC.

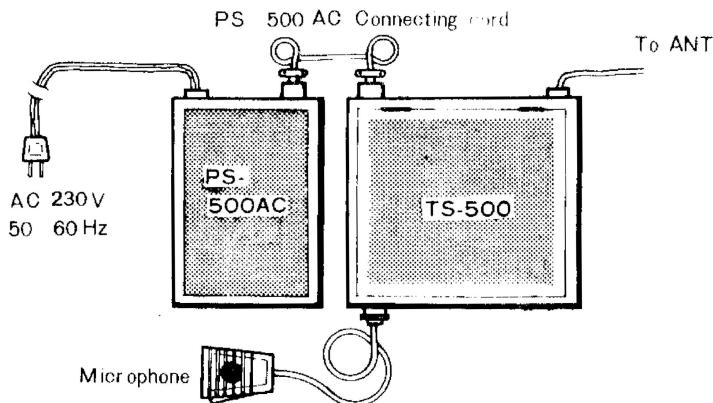


Fig1 Connecting to the TS-500

MAINTENANCE

1. REMOVING THE CHASSIS

ENCLOSURE

Remove the two flat-head bolts at the top of the enclosure, the four decorative bolts from its sides, and the five locking bolts at the bottom. The chassis can now be pulled out toward the

front.

The Hyzex legs need not be removed as they are not connected to the chassis.

2. FUSE

This unit is fused with a 6 Ampere fuse. The fuse holder is located at the rear.

PS-500AC SPECIFICATION

POWER TRANSFORMER

PREMARY AC 230V 50/60 Hz

SECONDARY (with CW output of TS-500 at 100 watts)

Terminal	Voltage	Current	Allowable Voltage Values
900V	890V	206mA	$\pm 6\%$
300V	287V	53.5mA	$\pm 8\%$
200V	225V	74.0mA	$\pm 8\%$
150V	142V	44.5mA	$\pm 8\%$
120V	-116V	5.5mA	$\pm 8\%$
12.6V	12.6V	3A	$\pm 6\%$
12.6V	12.6V	1A	$\pm 6\%$

power consumption maximum 435 W

SPEAKER

DIAMETES 16cm

FREQUENCY 150-5,000 Hz

MAXIMUM POWER INPUT 1.5W

DIMENSION W: 200- H: 220-D: 300 (mm)

WEIGHT 24.2Lbs

SCHEMATIC DIAGRAM

