



**FOX TANGO INTERNATIONAL**

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***FP-12 Power supply***

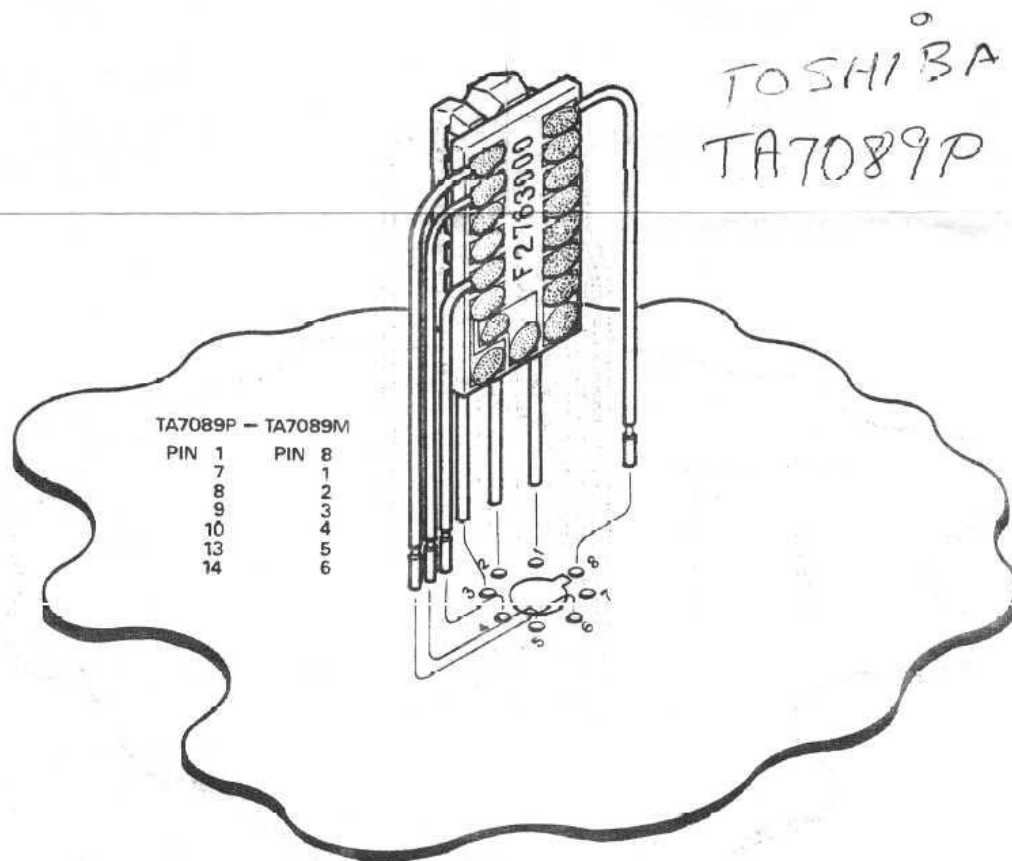
**The FP-12 Power supply provides an output voltage of 13,8 VDC at 12 amperes, designed for use with the FT-7B and CPU-2500R transceivers, and includes an 8 ohm speaker for base station listening.**



### REPLACEMENT OF THE TA7089M WITH TA7089P

The TA7089M Voltage Regulator IC used in some Yaesu FP- power supplies was previously available in an 8-pin radial lead package. This type is no longer available, so the TA7089P in 14-pin DIP package must be used as a replacement. The following drawing shows the replacement method, using Yaesu replacement kit D3000448, which consists of the TA7089P mounted on a small board, supplied with leads as shown.

After removing the TA7089M, trim the insulated leads from pins 1, 10, 13 and 14 on the replacement board so that the board can mount perpendicularly to the main board, and strip enough insulation for soldering. Then insert the wires into the original holes and solder them as shown.



If you have an item of interest you would like to see added to the Fox Tango Web Site

*Carol L. Maher W4CLM*

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# DC POWER SUPPLY FP12

## INSTRUCTIONS FOR USE

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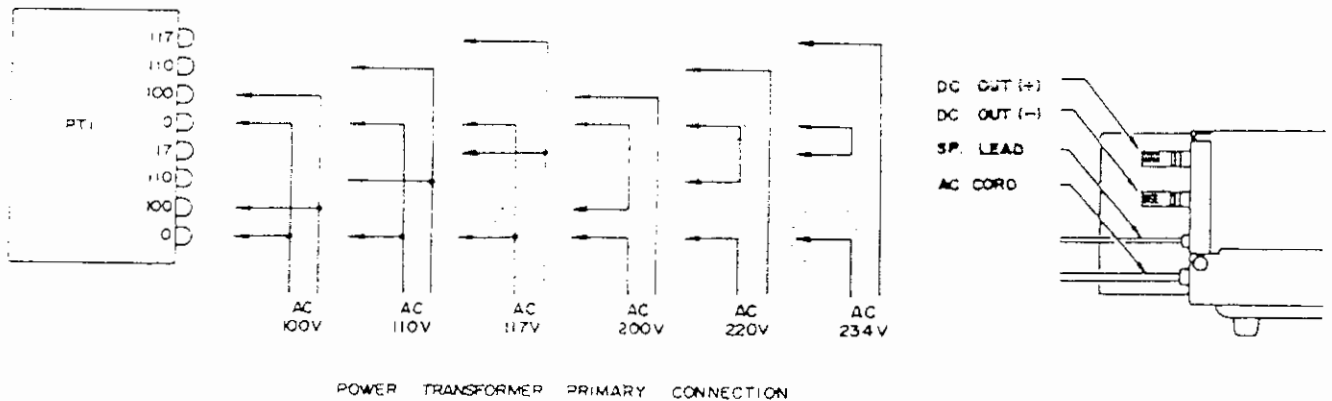
1. Be absolutely certain that the voltage specification marked on the power supply is the same as that of your local supply voltage. Refer to the transformer connection chart for details, should you change locations.
2. Connect the POSITIVE power lead (RED) from the transceiver to the POSITIVE (+) terminal of the power supply, and connect the NEGATIVE power lead (BLACK) from the transceiver to the NEGATIVE terminal on the power supply. Refer to the drawing.
3. Turn the power switch ON to commence operation. The speaker lead may be plugged into the external speaker jack on the rear of the transceiver for external speaker operation.

### WARNING

WHEN REPLACING FUSES, BE CERTAIN TO USE ONLY A 5 AMPERE FUSE FOR 100/110/117 VAC, OR A 3 AMPERE FUSE FOR 200/220/234 VAC. OUR WARRANTY DOES NOT COVER DAMAGE CAUSED BY IMPROPER FUSE INSTALLATION.

OUR WARRANTY DOES NOT COVER DAMAGE CAUSED BY IMPROPER APPLICATION OF AC SUPPLY VOLTAGE. BE CERTAIN OF THE SUPPLY VOLTAGE AND TRANSFORMER CONNECTIONS BEFORE COMMENCING OPERATION.

DO NOT EXCEED THE RECOMMENDED 50% DUTY CYCLE.



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USA

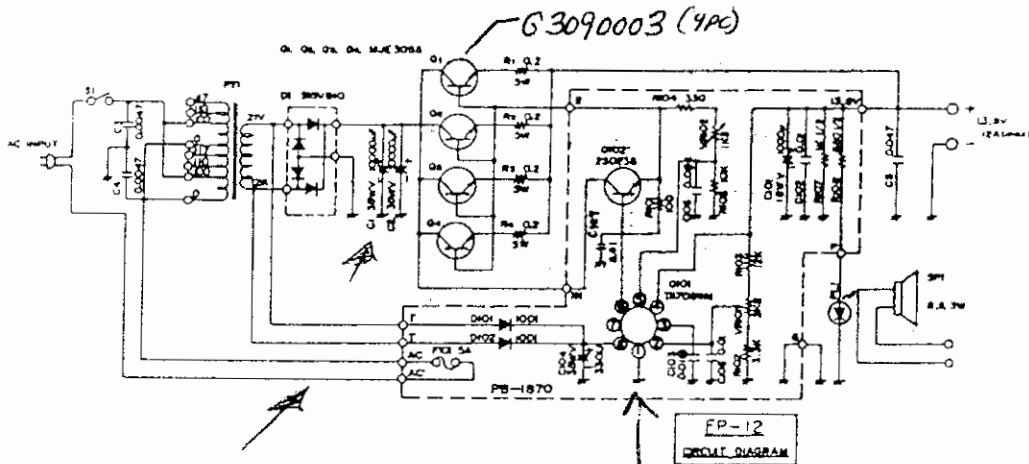
Printed in Japan

The FP-12 power supply provides an output voltage of 13.8 DC volts at 12 amperes, with excellent regulation. The FP-12 is designed for use with the FT-7B and CPU-2500R transceivers, and it includes an 8 ohm speaker for base station listening. Protection against short circuits in the power lead is provided.

SPECIFICATIONS

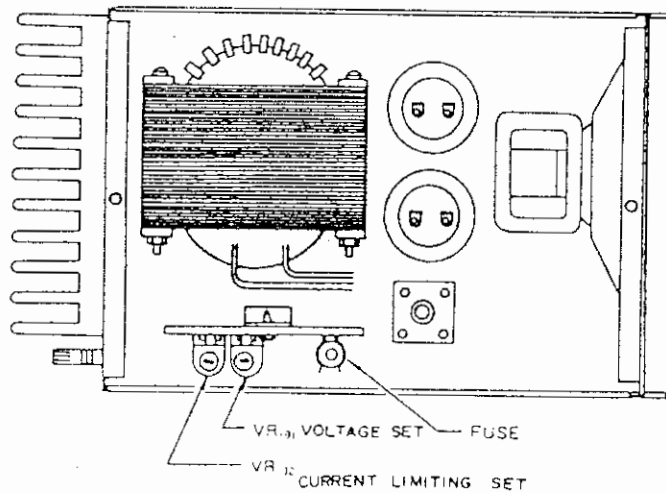
- Input voltage: 100/110/117/200/220/234 volts AC, 50/60 Hz
- Output voltage: 13.8 volts DC (adjustable from 10-15 volts)
- Output current: 12 amperes, 50% duty cycle
- Current limiting level: 16 amperes
- Ripple: 50 mV p-p (100 volts input, 12 amps)
- Case size: 180 (W) x 85 (H) x 290 (D) mm
- Weight: Approximately 7.3 kg.

Specifications subject to change without notice.



✓ 43160002 C1, C2 10,000HF 35WV.

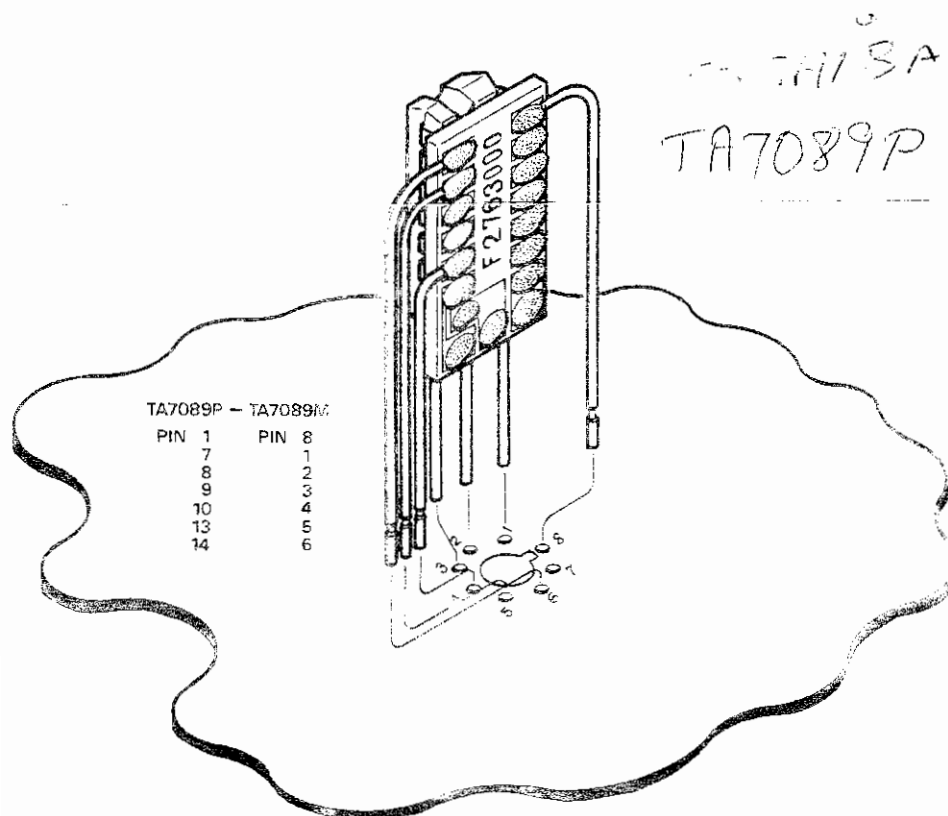
TA7099M  
TOSHIBA Part NR  
D3000448



### REPLACEMENT OF THE TA7089M WITH TA7089P

The TA7089M Voltage Regulator IC used in some Yaesu FP- power supplies was previously available in an 8-pin radial lead package. This type is no longer available, so the TA7089P in 14-pin DIP package must be used as a replacement. The following drawing shows the replacement method, using Yaesu replacement kit D3000446, which consists of the TA7089P mounted on a small board, supplied with leads as shown.

After removing the TA7089M, trim the insulated leads from pins 1, 10, 13 and 14 on the replacement board so that the board can mount perpendicularly to the main board, and strip enough insulation for soldering. Then insert the wires into the original holes and solder them as shown.



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## *FP-4 Power supply*

The FP-4 power supply is designed to provide an output voltage of 13.8 VDC at 4 Amps for base station operation of the FT-7, FT-227R, FT-817 or similar transceivers designed for DC operation.

The FP-4 makes a good choice for the QRP operations.



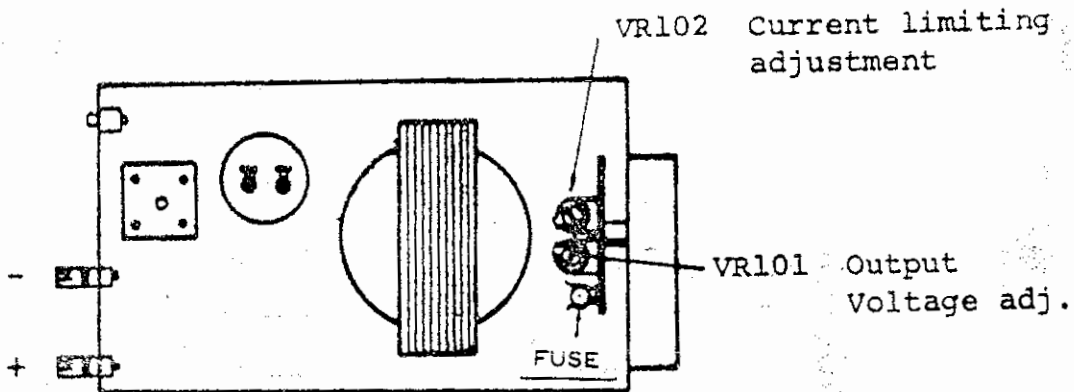
Both power supplies FP-12 and FP-4 use the same (TA7089M) voltage regulator IC which was used in some Yaesu FP- power supplies. The regulator was available in an 8-pin radial lead package which is no longer available. So the TA7089P in a 14-pin DIP package must be used as a replacement. Yaesu use to sell a replacement TA7089P in a 14-pin DIP package for these power supplies (P/N D3000448) it was mounted on a small circuit board with wires attached, however even this item is also no longer available. So when looking for the regulator I.C. you are basically on your own finding one.

FP-4

The FP-4 power supply is designed to provide DC output of 13.8 Volts at 4 Amps for base station operation of the FT-7, FT-227R, or similar transceivers designed for DC operation. AC input voltages of 100/110/117/200/220/234 at 50/60 Hz may be used, thus allowing operation from a variety of locations. The FP-4 features overload and short-circuit protection, too; current in excess of 5 Amps causes the power supply to shut down. VR101 provides adjustment of the DC output voltage, and VR102 adjusts the current-limiting point of the protective circuitry.

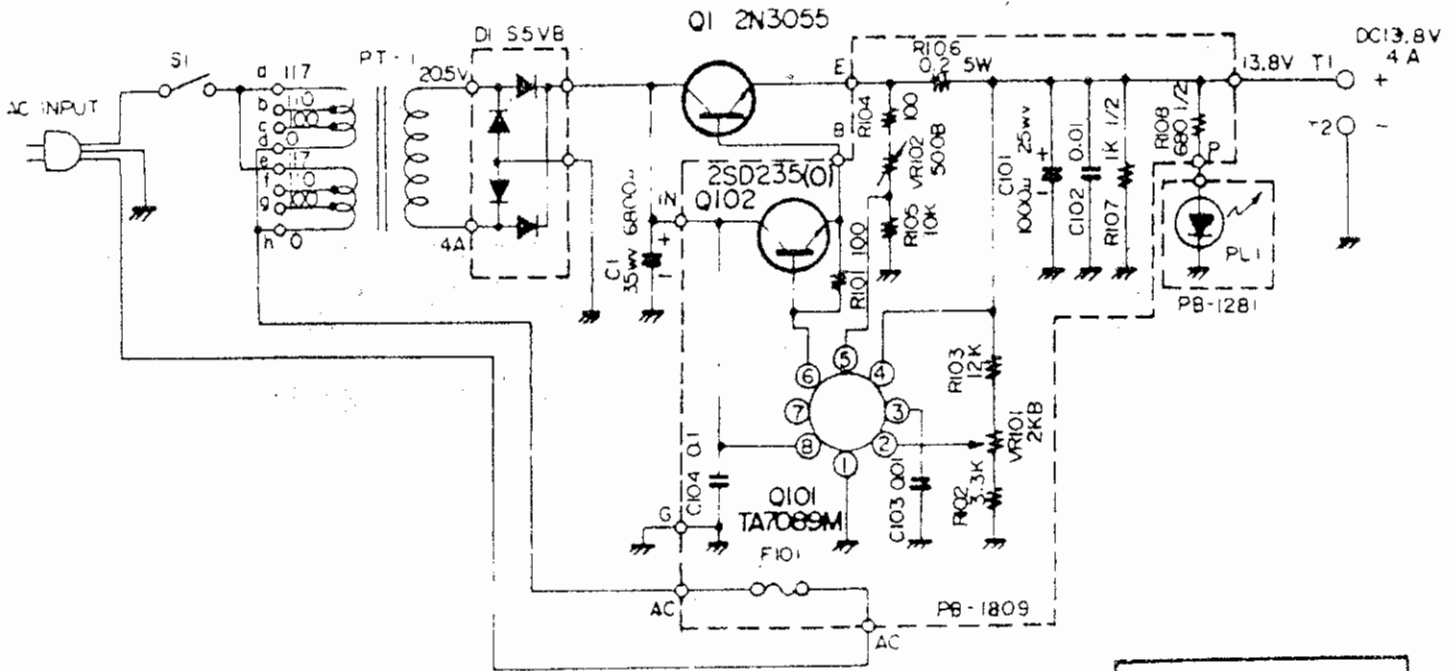
SPECIFICATIONS

AC Input voltage	100/110/117/200/220/234 VAC 50/60Hz
DC Output voltage	13.8 V (Adjustable 10-15 V)
Maximum Current	4 Amps (50 % Duty cycle)
Current protection threshold	5 Amps
Maximum Ripple	70 mV p-p @ 4 Amps 117 VAC

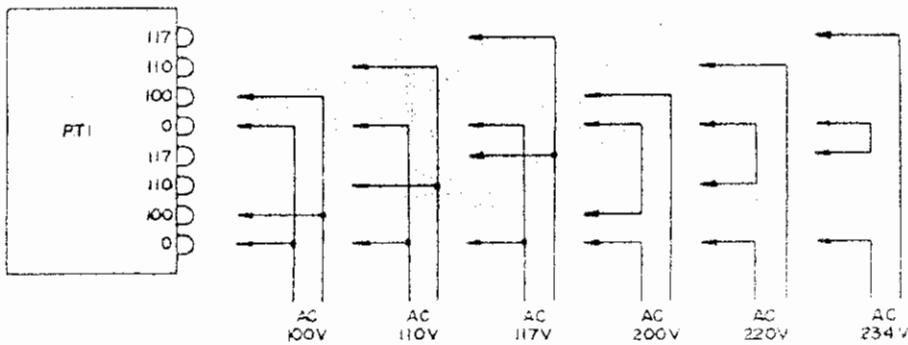


YAESU MUSEN CO., LTD.

C. P. O. BOX 1500 TOKYO, JAPAN



**FP-4**  
**CIRCUIT DIAGRAM**



POWER TRANSFORMER PRIMARY CONNECTION