## Downloaded by RadioAmateur.EU

# YAESU FP-757GX SWITCHING POWER SUPPLY

The FP-757GX is a solid state switching supply designed to match the FT-757GX All Mode HF Transceiver. The extremely small size and light weight are the obvious advantages of the latest switching supply technology, which eliminates the need for a bulky power transformer. Gone too is the heat caused by power losses in the transformer, resulting in extremely high efficiency and tight regulation over wide ranges of AC input voltage and DC output current demands.

### **SPECIFICATIONS**

Input Voltage:

85 to 132 V or 170 to 264 VAC (selectable)

Output Voltage:

13.5 VDC at rated load (approx. 15 V at 1 A)

Load Rating:

1 A to 20 A (50% duty cycle at 20 A less than 30 seconds)

Ripple:

600 mV p-p at 20 A

Operating Temperature Range:

0°C to 40°C

Case Size (WHD):

 $238 \times 39 \times 238 \,\mathrm{m}$ 

Weight:

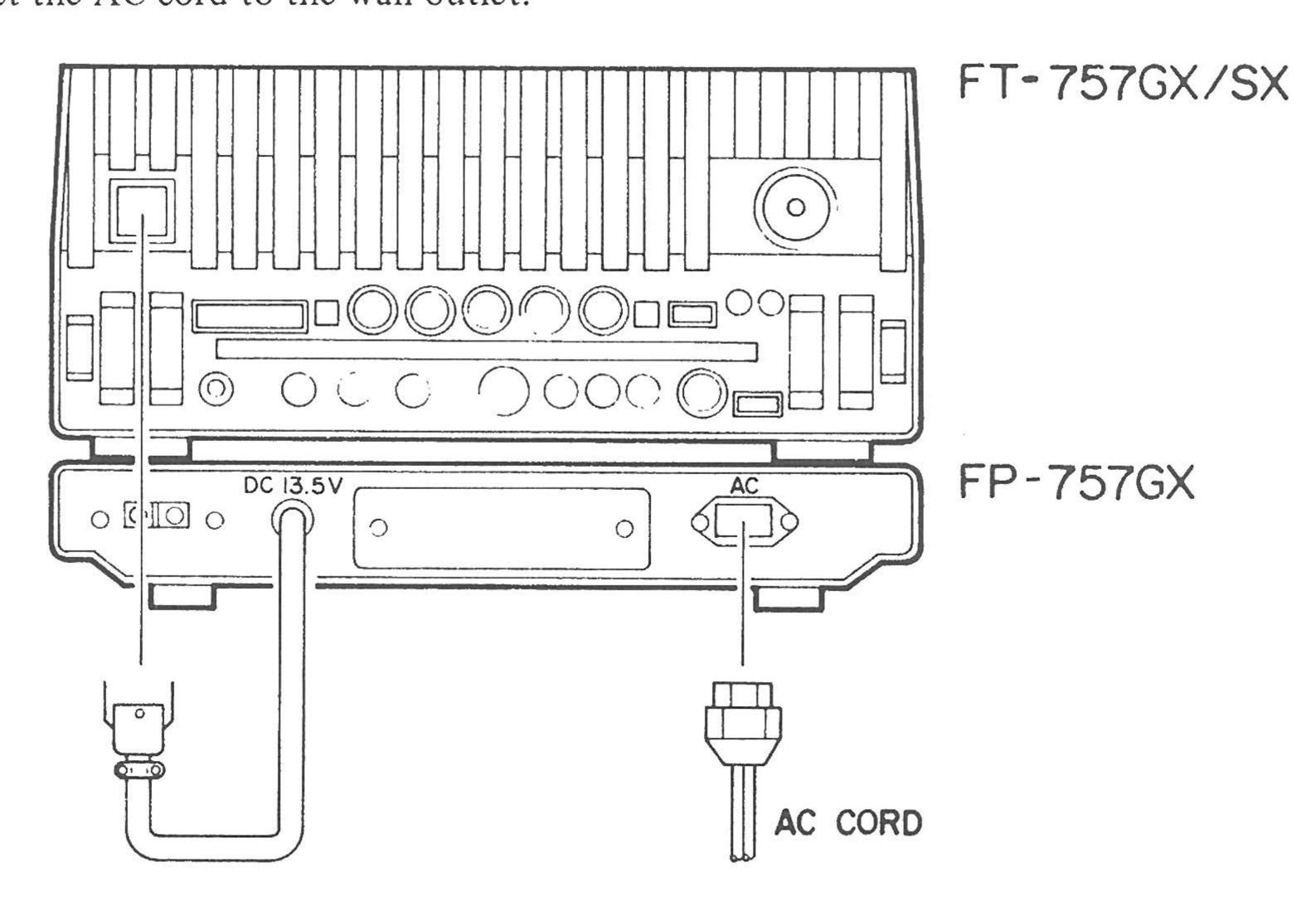
approx. 2 kg (4.4 lb)

## INSTALLATION

Although the high efficiency of the FP-757GX allows it to run cool even at high current, care must be taken to avoid overheating in conditions of very high humidity and/or ambient air temperature. Make sure that adequate space is provided for the free flow of air around the sides of the FP-757GX at all times.

#### INTERCONNECTIONS

Before connecting the FP-757GX, check that the voltage range on the label on the rear panel near the AC power jack includes your local AC line voltage. If not, perform the AC Voltage Change procedure below before connecting power. Connect the DC 13.5 V cable from the FP-757GX to the DC 13.5 V jack on the rear panel of the FT-757GX. Check to make sure that all POWER switches are OFF, and then connect the AC cord to the wall outlet.



#### OPERATION

Always switch the power supply on before the transceiver, and switch the transceiver off before the power supply. This will avoid possible damage to the transceiver due to supply transients.

While the FP-757GX is capable of providing 20 A with a 50% duty cycle, full power drain periods must be limited to 30 seconds. For 100% continuous duty operation, current drain must be limited to below 10 A.

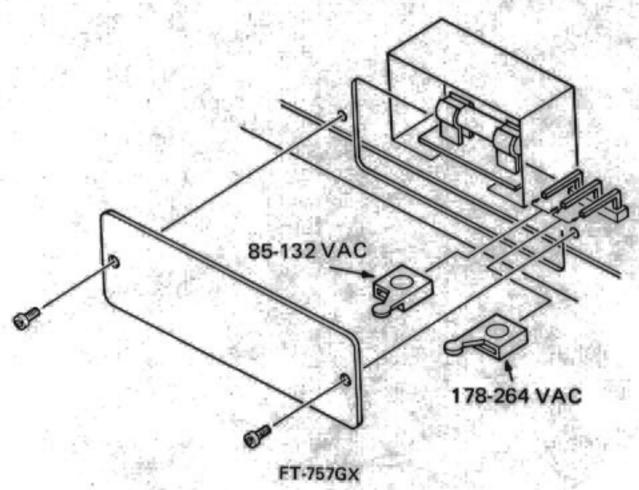
Auxiliary DC terminals are provided on the rear of the FP-757GX for powering other equipment that requires 13.5 VDC. Current drain from these terminals is limited to 10 A, but in no case should the total current drain from the supply exceed 20 A.

The automatic protection circuit in the FP-757GX will shut off output from the supply if current drain exceeds approximately 25 A. If this occurs, switch off the supply POWER switch and all connected equipment, and investigate the cause (such as a short circuit in the DC supply line or connectors). Once the problem is corrected, and after at least 10 seconds, switch the FP-757GX back on, followed by the FT-757GX and other equipment. If the power supply fails to come on, a short may still be present at the output, or the automatic protection circuit may have failed, in which case the AC line fuse inside the FP-757GX will have blown. To replace the fuse, remove the two screws and subpanel on the rear of the supply, and use a 5 A fuse ONLY, for replacement.

#### AC VOLTAGE CHANGE

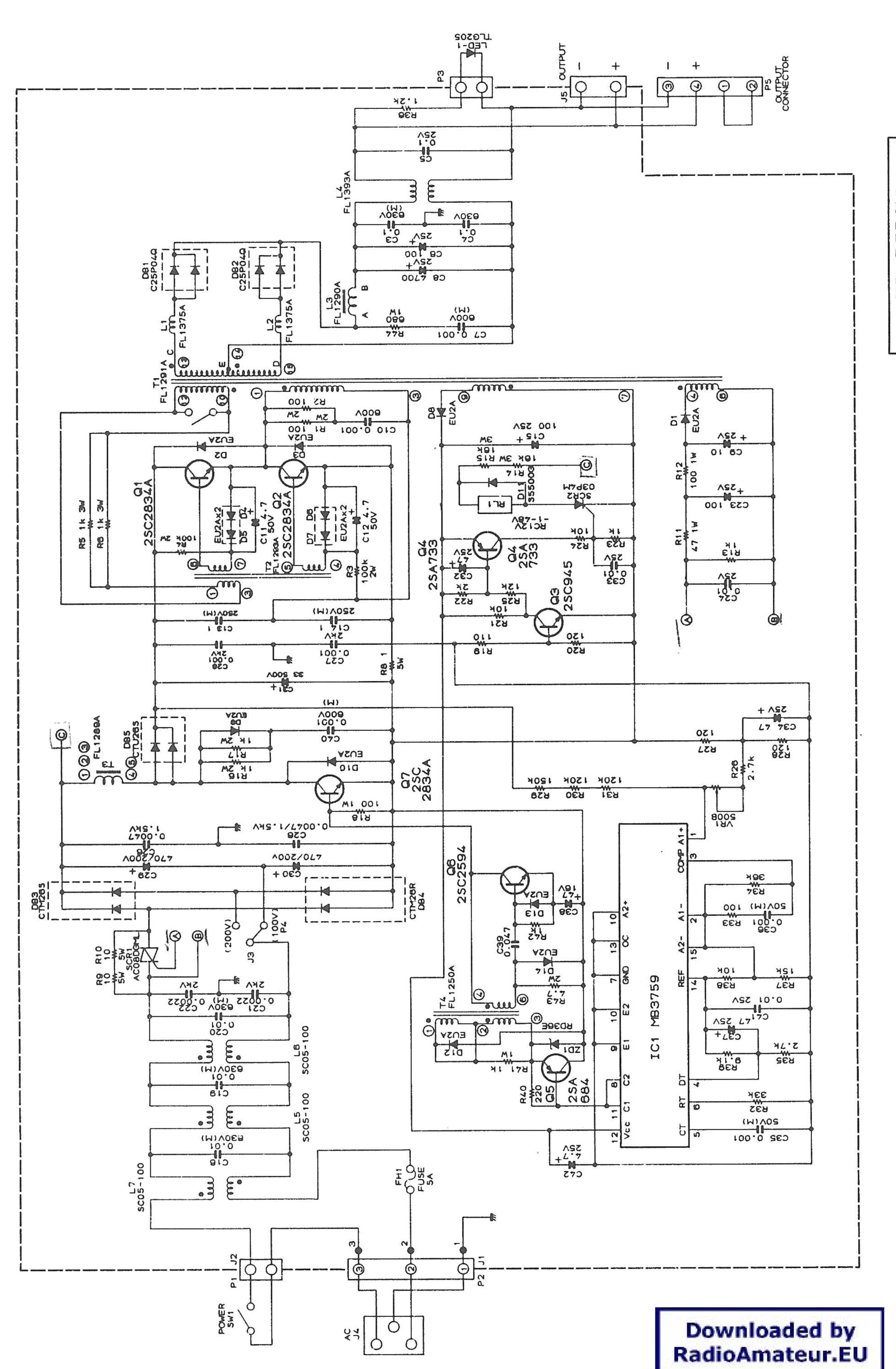
If the AC voltage range marked on the rear panel of the FP-757GX (near the AC jack) does not include your local AC line voltage, remove the two screws and subpanel on the rear of the supply. Locate the jumper plug at the left side of the opening (when viewed from the rear), and notice that this plug jumpers two of the three pins on the mating connector. To change the AC range of the supply, simply remove the jumper plug and reinstall it so that the center pin of the connector is now jumpered to the pin that had no connection previously.

Now replace the subpanel and its two screws, and replace the AC voltage sticker with one that shows the new range.



FP-757GX PARTS LIST

and the state of	instate 1	FP-13/GX	PERSONAL SERVICE CONTRACTOR OF THE PERSON OF	LISI		STRUMBER	180
	MAIN CI	HASSIS Description	R01,02	120225101	RESISTORS Metallic film	2W	100.0
Symbol No.	Part No.	LED	R05,06	J20335101	" "	2W	100 Ω
LEDI	G2090136	TLG-205	R08	J20335104 J20355102	" "	3W	100 kΩ
LED1	02090130	120-203	R09,10	J10375010	Metal solid	5W	1 ks
	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	LED SOCKET	R11	J30376100	Cement	5W	10 Ω
P3	P1090416	TLS-U01X-A1	R12,18	J20305470	Metallic film	1W	47 5
	11020110		R13,23,42	J20305470	" "	(t) (t)	100 Ω
	- 51/0°	THE PROPERTY OF THE PROPERTY O	R14,15	J00245102	Carbon film	1/4W	THE RESERVE TO SERVE THE PARTY OF THE PARTY
A STAN SU	7,000	CONNECTORS	R16,17	THE RESERVE THE PARTY OF THE PA	Metallic film	3W	1 kΩ
D1	P1090414	5196-02	R19	J20355163	" "	2W	16 ks
P1	P1090415	5196-03	R20,27,28	J20335102	Carbon film	½W	1 kΩ
P2 P5	P1090042	QS-P4FK	R21,24,38	J00245111	" "	74 W	110 Ω
	11030042	TERMINALS	R22	J00245121			120 5
704 5 77450	P0090094	NC-174	Manager St., Springer and J. S. A.	J00245103		10000	10 ks
J4	Q6000083	D-05-2P	R25	J00245202			2 ks
JS	Q0000083	D-03-21	R26,35	J00245123		••	12 ks
	0.050505	SWITCH	R29	J00245272		0.40	2.7 ks
	N2000020	CONTRACTOR	R30,31	J00245154		BRA WAY	150 ks
SW1	N2090030	EST-159R	R32	J00245124	and the second	EST 12	120 ks
	P. P. P.		R33	J00245333			33 ks
	24 5	and configuration of the Confi	R34	J00245101	" "	6.6.715.680°	100 5
	S		R36	J00245363	Will Street Tolking	100	36 kΩ
	PARTY OF THE	MAIN UNIT	R37	J00245122	" "		1.2 ks
施生物 シュー・イン・イ	4 1 2 2	Printed Circuit Board	R39	J00245153	the" or all to be	M. S. W. S.	15 ks
		FP1114-051	R40	J00245912	Element of the second	by a contract of	9.1 ks
10年 美工工业服务与			R41	J00245221	<b>中国企业</b>		220 \$
<b>工作工程图1.70</b> 0		TRANSISTORS	R43	J20305102	Metallic film	1W	1 ks
Q1,2,7	G3328340A	2SC2834A	R44	J20335479		2W	4.7 \$
Q3	G3309450	2SC945	<b>三大学的</b>	J20305681	3.00	1W	680 \$
Q4	G3107330	2SA733		STATE OF STA	· · · · · · · · · · · · · · · · · · ·		1.4
Q5	G3106840	2SA684	PERMIT : 4	ALC: CALL		Figure 1	1 2 1
Q6	G3325940	2SC2594	VR01	<b>可能,但从19</b> 20年	POTENTIOMET	ER	
			1 P. S. M. S.	J51763501	ET-6P	500 Ω	J
		TRIAC	Managara and Company		2000年2000年8月		
SCR01	G3090063	AC08DGML			CAPACITORS		-
	4007000	and the second s	C01,02,17,18		Not used		
		THYRISTOR	C03,04	K52280005	Metalized film	630 WV	0.1
SCR02	G3090064	03P4M	C05,01		(630VMM104M)		0.1 μF
			C16,19,20	and the second s	Metalized film (630VMM103M)	630 WV	0.01 μΙ
1 3887		IC	C05	K13149001	IND SEDEMINISTRA	25 WV	0.1 μΙ
IC01	G1090612	MB3759	MEDIZINE STORY		(ECK-F1E104ZE	STREET, THE STATE OF	
LUI.	Acres		C06	K40149005	Electrolytic	25 WV	1000 μΕ
		DUAL SCHOTTKY DIODES			(TWSS25V1000)	No. of Contract of	1000 #1
DD01-02	G2090298	C25P04Q	C07,10,40	and the first of the particular of the plant of the particular of	Metalized film	Complete Control Street Avenue	0.001 μΙ
DB01,02	G2030220	CZSIOTQ	C07,10,40	K32280004		the year of the control	υ.υυ1 μι
	E 1 - 90 1	DUAL SILICON DIODES	C08	V40140026	(ECQM6102MZ)		4700 . 1
DDOS	G2090299	CTM26S Cathode Common	CUO	K40149020	Electrolytic	23 W V	4700 µI
DB03	Z. O LOS RESERVACIONES.		C00	V40140000	(RP25V4700)	100	10.1
DB04	G2090300	CTM26R Anode Common	C09	K40149008	anticon estroy		10 μΙ
	7 (0.1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	DUAL FAST RECOVERY DIODE	011.12	V40170012	(TWSS25V10)	50 MA	
	G2000201	The second section is a second of the second	C11,12	K40179012		50 WV	4.7 µl
DB05	G2090301	CTU26S Cathode Common	PRESENT SE		(MHA50V4R7)	SON PROPERTY.	-
			C13,14	K52240004	ESPECIAL PROPERTY OF THE PARTY	250 WV	1 µl
100		ZENER DIODE	量的整理的企业	1. 量图183 篇	(250VMM105M)	Company of the Company of the Company	1
ZD01	G2090302	RD36E	C15,23	K40149003	Electrolytic	25 WV	100 μl
			A FIFT		(TWSS25V100)	200 JE	£ 15198
		FAST RECOVERY DIODES	C21,22	K12339001	Ceramic disc	Day of the Company of the State	0.0022 µl
D01-10,12-14	G2090303	EU2A	<b>200</b> 0000000000000000000000000000000000	The second	(ECK-D3D222K	SAMPLE STATE OF THE PARTY OF TH	Real March
			C24,33,41	K13179012	Ceramic disc	50 W	7 0.01 μI
THE STATE OF		SILICON DIODE	Chi The	755 Table 1	(ECK-F1H1032F	T. P. C. Control of the Control of t	1 144
	G2090304	S5500G	C25,26	K12329002	"are of males	1.5 kV	0.0047 μ
D11	ACCUPATION PRODUCTS		- STREET STREET	1. ST. TOP 1. ST. T. ST. S	CECH DALATAN		14
D11		は できた できた できる できる できる できる できる できる かんかい かんかい かんかい かんかい かんかい かん かんかい かんかい	ESTATE TO STATE OF THE STATE OF	SCHOOL STEEL	(ECK-DAL472P)		the Resemble of the Section of
D11			C27,28	K12339002			0.001 µ
D11			C27,28	THE DESIGNATION OF THE PROPERTY.		2 kV	0.001 μ
D11			C27,28 C29,30		" "	2 kV	The least



SIRCUIT DIAGRAM

for free by RadioAmateur.eu