

YAESU FP-29 AC POWER SUPPLY

for the FT-1000MP MARK-V HF Transceiver

The **FP-29** is an external AC power supply for use with the **FT-1000MP MARK-V** HF Transceiver, providing 30 Volts DC at up to 15 amperes for extended periods.

Excellent regulation and conservative design assure the owner of many years of trouble-free operation. A thermally-switched cooling fan automatically activates during long periods of high current demand, to maintain a safe operating temperature in the power supply.

Specifications

DC Output Voltage:	+30 V , +13.8 V
DC Output Current:	+30 V: 15A; +13.8 V: 3A
Input Voltage:	AC 100-120V, 50 - 60 Hz AC 200-240 V, 50 - 60 Hz
Current Consumption (Approx.):	AC 100-120 V: 9 A, AC 200-240 V: 5 A
Operating Temperature Range:	-10 °C ~ +50 °C
Case Size (W x H x D):	106 x 135.5 x 331 mm (4.2 x 5.3 x 13 inch)
Weight (Approx.):	3.2 kg (7 lbs)

Specifications are subject to change without notice or obligation.

Supplied Accessory

DC Power Cable: T9022299 (length: 2 meters)	1
AC Power Cable	1
Operating Manual (this sheet)	1
Warranty Card	1

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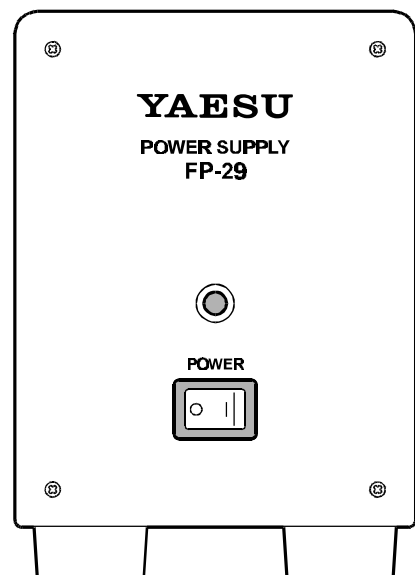
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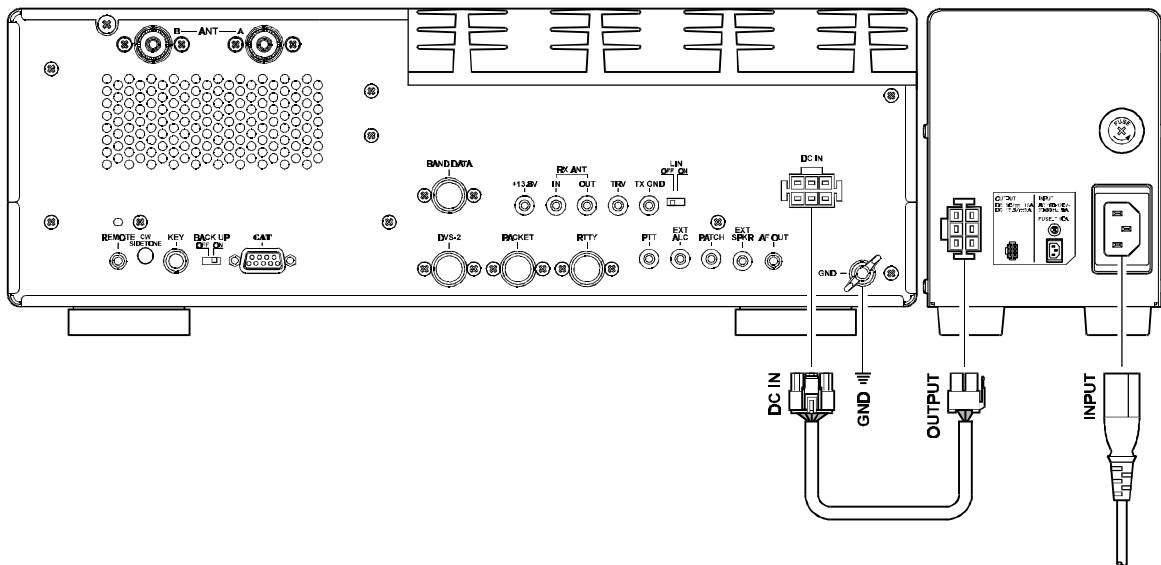
INSTALLATION

Before connecting the **FP-29** to any power source, be absolutely certain that the voltage specification on the rear panel matches your local supply voltage. The **FP-29** is manufactured for use around the world, from a variety of power sources, and the wiring must be connected properly to prevent damage to the internal circuit.

Connect the supplied AC Power Cable between the **FP-29** AC jack and AC line outlet, then connect the supplied DC Power Cable between the **FP-29 OUTPUT** jack and **FT-1000MP MARK-V DC IN** jack.



Warning: Our Warranty does not cover damage caused by improper supply voltage nor use of an improper fuse.



Operation

- Turn on the **FP-29 MAIN** switch on the front panel to activate the power supply. Always turn the **FP-29 MAIN** switch on **before** turning on the **FT-1000MP MARK-V POWER** switch.
- To turn off the **FP-29**, always turn the **FT-1000MP MARK-V POWER** switch off **before** turning off the **FP-29 MAIN** switch.

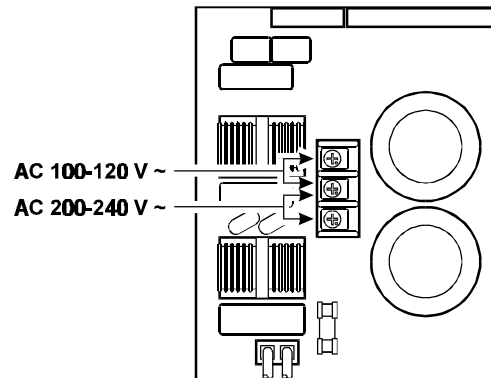
Changing AC Mains Jumper Wiring

- Before change the AC Main Jumper, disconnect the AC Power Cable from the AC line outlet, then wait 10 minute for discharge the capacitor to prevent the electrical shock.
- Remove the 10 screws (right side: 6 screws; left side: 4 screws) affixing the top cover of the FP-29, and remove the top cover.
- Perform the correct wiring on the Switching Regulator Unit for the AC Mains voltage used in your area (AC 100-120 V or AC 200-240 V) as shown below. There are three screw terminals involved, and a jumper must be connected across two of them, per the drawing at the right.
- Change the fuse in the fuse holder on the rear panel, as indicated below. Do not use slow-blow type fuses.

AC Mains Voltage	AC Fuse Rating
100 ~ 120 V	10 A
200 ~ 240 V	6 A

Also, change the voltage marking on the label on the rear panel to match the new voltage setting.

- Replace the top cover and its 10 screws. This completes the wiring change.



Warning: Our Warranty does not cover damage caused by improper supply voltage nor use of an improper fuse.

FP-29 PARTS LIST

REF	DESCRIPTION	VALUE	W/V	TOL	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	LAY ADR	QTY
B 0001	BEADS INDUCTOR				B-01-A	L1190386		1		1
B 0011	FERRITE BEADS				B-20L-48B	L9190120		1		1
B 0012	FERRITE BEADS				B-20L-48B	L9190120		1		1
B 0013	FERRITE BEADS				B-20L-48B	L9190120		1		1
B 0014	FERRITE BEADS				B-20L-48B	L9190120		1		1
C 0001	FILM CAP.	0.47uF	250V		ECQU2A-474MV	K52240010		1		1
C 0002	FILM CAP.	0.22uF	250V		ECQU2A-224MV	K52240009		1		1
C 0003	CERAMIC CAP.	2200pF	250V		DE1007E222M-KH	K10249002		1		1
C 0004	CERAMIC CAP.	2200pF	250V		DE1007E222M-KH	K10249002		1		1
C 0005	FILM CAP.	0.22uF	250V		ECQU2A-224MV	K52240009		1		1
C 0008	AL. ELECTRO. CAP.	330uF	100V		LXV100VB330ML30	K40209001		1		1
C 0009	AL. ELECTRO. CAP.	390uF	400V		EC0S2GB391EB			1		1
C 0010	AL. ELECTRO. CAP.	390uF	400V		EC0S2GB391EB			1		1
C 0011	FILM CAP.	0.022uF	630V		MMC630K223-0100	S8100928		1		1
C 0012	CERAMIC CAP.	0.1uF	50V		RPE132F104Z50	K23170054		1		1
C 0013	CERAMIC CAP.	470pF	1kV		DE0705R471K1K	K10309002		1		1
C 0014	CERAMIC CAP.	470pF	1kV		DE0705R471K1K	K10309002		1		1
C 0015	FILM CAP.	0.033uF	1250V		ECWH12333JV	K55310001		1		1
C 0016	CERAMIC CAP.	1000pF	1kV		DE0705R102K1K	K10309003		1		1
C 0017	FILM CAP.	0.56uF	1250V		ECWH12563JV	K55310002		1		1
C 0018	AL. ELECTRO. CAP.	100uF	35V		EEUFC1V101	K40169040		1		1
C 0019	CERAMIC CAP.	0.1uF	50V		RPE132F104Z50	K23170054		1		1
C 0020	AL. ELECTRO. CAP.	82uF	35V		EEUFC1V820-E	K40169041		1		1
C 0031	CERAMIC CAP.	2200pF	250V		DE1007E222M-KH	K10249002		1		1
C 0032	CERAMIC CAP.	2200pF	250V		DE1007E222M-KH	K10249002		1		1
C 0041	AL. ELECTRO. CAP.	220uF	50V		EEUFC1H221	K40179077		1		1
C 0042	AL. ELECTRO. CAP.	470uF	25V		EEUFC1E471	K40149067		1		1
C 0043	AL. ELECTRO. CAP.	470uF	25V		EEUFC1E471	K40149067		1		1
C 0044	CERAMIC CAP.	0.1uF	50V		RPE132F104Z50	K23170054		1		1
C 0045	CERAMIC CAP.	0.1uF	50V		RPE132F104Z50	K23170054		1		1
C 0045	AL. ELECTRO. CAP.	1200uF	50V		EEUFC1H122	K40179078		1		1
C 0046	AL. ELECTRO. CAP.	1200uF	50V		EEUFC1H122	K40179078		1		1
C 0047	AL. ELECTRO. CAP.	1200uF	50V		EEUFC1H122	K40179078		1		1
C 0049	AL. ELECTRO. CAP.	220uF	50V		EEUFC1H221	K40179077		1		1
C 0050	FILM CAP.	0.022uF	630V		MMC630K223-0100	S8100928		1		1
C 0051	FILM CAP.	0.022uF	630V		MMC630K223-0100	S8100928		1		1
C 0052	AL. ELECTRO. CAP.	100uF	35V		EEUFC1V101	K40169040		1		1
C 0053	FILM CAP.	0.1uF	50V		ECQB1H104KFW	K50170107		1		1
C 0054	FILM CAP.	1000pF	50V		ECQB1H102KFW	K50170106		1		1
C 0056	FILM CAP.	0.033uF	50V		ECQB1H333KFW	K50170108		1		1
C 0057	FILM CAP.	0.033uF	50V		ECQB1H333KFW	K50170108		1		1
C 0058	FILM CAP.	0.033uF	50V		ECQB1H333KFW	K50170108		1		1
C 0059	FILM CAP.	0.033uF	50V		ECQB1H333KFW	K50170108		1		1
CN0001	CONNECTOR				B2P3-VH	P0090866		1		1
CN0002	CONNECTOR				B2B-EH			1		1
CN0011	CONNECTOR				B2P3-VH	P0090866		1		1
CN0012	CONNECTOR				B170267-1	Q8000164		1		1
CN0013	CONNECTOR				B170267-1	Q8000164		1		1
CN0014	CONNECTOR				B170267-1	Q8000164		1		1
CN0015	CONNECTOR				B170267-1	Q8000164		1		1
CN0016	CONNECTOR				B3B-EH	P0090667		1		1
D 0001	DIODE				RBV606			1		1
D 0002	DIODE				FSF05A20	G2090771		1		1
D 0003	DIODE				FML-24S			1		1
D 0004	DIODE				1SS270A	G2090754		1		1
D 0005	DIODE				1SS270A	G2090754		1		1
D 0006	DIODE				HZ15-2	G2090406		1		1
D 0007	DIODE				1SS270A	G2090754		1		1
D 0008	DIODE				HZ2B1	G2090755		1		1
D 0009	DIODE				1SS270A	G2090754		1		1
D 0010	DIODE				1SS270A	G2090754		1		1
D 0011	DIODE				ERA15-06	G2090769		1		1
D 0012	DIODE				1SS270A	G2090754		1		1
D 0021	DIODE				ESAD85-009	G2090732		1		1
D 0022	DIODE				ESAD85-009	G2090732		1		1
D 0023	DIODE				RK46	G2090776		1		1
D 0024	DIODE				ERA92-02	G2090770		1		1
D 0025	DIODE				1SS270A	G2090754		1		1
D 0026	DIODE				HZ5C1	G2090188		1		1
D 0027	DIODE				HZ7A3L			1		1
D 0028	DIODE				HZ33-2	G2090772		1		1
D 0029	DIODE				HZ15-2	G2090406		1		1
F 0001	FUSE				215 06.3	Q0000099		1		1
HIC0001	MODULE				MB2013A	S8100824		1		1
IC0001	IC				S-80745AN	G1092610		1		1
IC0011	IC				LM2576T-ADJ	G1092803		1		1
IC0012	IC				NJM2904D	G1090539		1		1
L 0001	RFC				MS10-200			1		1
L 0002	RFC				MS10-200			1		1
L 0011	RFC				FL1719A	S8100204		1		1
L 0012	RFC				HP-034SZ	S8100925		1		1
L 0013	RFC				FL1719A	S8100204		1		1
L 0014	RFC				FL1783A	S8100206		1		1
L 0015	RFC				FL1783A	S8100206		1		1

FP-29 PARTS LIST

REF	DESCRIPTION	VALUE	W/V	TOL	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	LAY ADR	QTY
LF0001	LINE FILTER				SC-10-10J	S8100923		1		1
LF0002	LINE FILTER				SC-10-10J	S8100923		1		1
PC0001	PHOTO COUPLER				PC123FY2	G0090036		1		1
PC0002	PHOTO COUPLER				PC123FY2	G0090036		1		1
Q 0001	TRAIACK				TF1661S-L	G3090138		1		1
Q 0002	POWER MOS FET				FS222M-10	G3090137		1		1
Q 0003	POWER MOS FET				FS222M-10	G3090137		1		1
Q 0004	TRANSISTOR				2SC4002E	G3340010E		1		1
Q 0005	TRANSISTOR				DTC114ESA	G3090130		1		1
Q 0006	TRANSISTOR				2SC945AP	G3309451P		1		1
Q 0011	TRANSISTOR				2SA733	G3107330K		1		1
Q 0012	TRANSISTOR				2SC945AP	G3309451P		1		1
Q 0013	TRANSISTOR				2SA733	G3107330K		1		1
R 0001	CARBON FILM RES.	470k	1/2W		RD50SS-470K OHM J	S8100947		1		1
R 0002	FUSE RES.	5.1	1.6W		A53K-5R1J	S8100920		1		1
R 0003	FUSE RES.	5.1	1.6W		A53K-5R1J	S8100920		1		1
R 0004	CARBON FILM RES.	10k	1/4W		RD16S-10K OHM J	S8100933		1		1
R 0005	CARBON FILM RES.	100	1/2W		RD50SS-100 OHM J	S8100946		1		1
R 0006	CARBON FILM RES.	100k	1/4W		RD16S-100K OHM J	S8100932		1		1
R 0007	CARBON FILM RES.	220k	1/2W		RD50SS-470K OHM J	S8100947		1		1
R 0009	CARBON FILM RES.	10	1/4W		RD16S-10 OHM J	S8100930		1		1
R 0010	CARBON FILM RES.	100k	1/4W		RD16S-100K OHM J	S8100932		1		1
R 0011	CARBON FILM RES.	10	1/4W		RD16S-10 OHM J	S8100930		1		1
R 0012	CARBON FILM RES.	100k	1/4W		RD16S-100K OHM J	S8100932		1		1
R 0013	CARBON FILM RES.	22	1/4W		RD16S-22 OHM J	S8100938		1		1
R 0014	CARBON FILM RES.	47k	1/4W		RD16S-47K OHM J	S8100944		1		1
R 0015	CARBON FILM RES.	1.5k	1/4W		RD16S-1.5K OHM J	S8100929		1		1
R 0016	CARBON FILM RES.	47k	1/4W		RD16S-47K OHM J	S8100944		1		1
R 0017	CARBON FILM RES.	27k	1/4W		RD16S-27K OHM J	S8100941		1		1
R 0018	CARBON FILM RES.	220k	1/4W		RD16S-220K OHM J	S8100940		1		1
R 0019	CARBON FILM RES.	4.7k	1/4W		RD16S-4.7K OHM J	S8100943		1		1
R 0020	METAL FILM RES.	33k	1W		ERG1SJ-333	J22305333		1		1
R 0021	CARBON FILM RES.	3.3k	1/4W		RD16S-3.3K OHM J	S8100942		1		1
R 0022	CARBON FILM RES.	220k	1/4W		RD16S-220K OHM J	S8100940		1		1
R 0023	CARBON FILM RES.	220k	1/4W		RD16S-220K OHM J	S8100940		1		1
R 0024	CARBON FILM RES.	100	1/4W		RD16S-100 OHM J	S8100931		1		1
R 0031	CARBON FILM RES.	1.5k	1/4W		RD16S-1.5K OHM J	S8100929		1		1
R 0032	CARBON FILM RES.	150	1/4W		RD16S-150 OHM J	S8100934		1		1
R 0033	RES.	0.01	2W		MPC76-0.01 OHM K			1		1
R 0034	RES.	0.01	2W		MPC76-0.01 OHM K			1		1
R 0035	CARBON FILM RES.	2.2	1/4W		RD16S-2.2 OHM J	S8100937		1		1
R 0036	CARBON FILM RES.	150	1/4W		RD16S-150 OHM J	S8100934		1		1
R 0037	CARBON FILM RES.	1k	1/4W		RD16S-1K OHM J	S8100936		1		1
R 0038	CARBON FILM RES.	1k	1/4W		RD16S-1K OHM J	S8100936		1		1
R 0039	CARBON FILM RES.	10k	1/4W		RD16S-10K OHM J	S8100933		1		1
R 0040	CARBON FILM RES.	150	1/4W		RD16S-150 OHM J	S8100934		1		1
R 0041	CARBON FILM RES.	4.7k	1/4W		RD16S-4.7K OHM J	S8100943		1		1
R 0042	CARBON FILM RES.	10k	1/4W		RD16S-10K OHM J	S8100933		1		1
R 0043	CARBON FILM RES.	4.7k	1/4W		RD16S-4.7K OHM J	S8100943		1		1
R 0044	CARBON FILM RES.	47k	1/4W		RD16S-47K OHM J	S8100944		1		1
R 0045	CARBON FILM RES.	220	1/4W		RD16S-220 OHM J	S8100939		1		1
R 0046	CARBON FILM RES.	15k	1/4W		RD16S-15K OHM J	S8100935		1		1
R 0047	CARBON FILM RES.	4.7k	1/4W		RD16S-4.7K OHM J	S8100943		1		1
R 0048	CARBON FILM RES.	220	1/4W		RD16S-220 OHM J	S8100939		1		1
R 0049	CARBON FILM RES.	220	1/4W		RD16S-220 OHM J	S8100939		1		1
R 0050	CARBON FILM RES.	4.7k	1/4W		RD16S-4.7K OHM J	S8100943		1		1
R 0051	POSISTOR				PTH9M04BD222TS2F333	G9090083		1		1
R 0052	CARBON FILM RES.	47k	1/4W		RD16S-47K OHM J	S8100944		1		1
R 0053	METAL FILM RES.	68	1W		ERG1SJ-680	J22305680		1		1
S 0001	THERMOSTAT				67F080			1		1
T 0001	CONVERTER TRANSE FP2083A-501				FP2083A-501	S8100921		1		1
T 0002	CONVERTER TRANSE FP2083A-502				FP2083A-502	S8100922		1		1
VR0011	TRIMER	100			FT-6P-100	S8100926		1		1
VR0012	TRIMER	100			FT-6P-100	S8100926		1		1
VR0013	TRIMER	500			FT-6P-500	S8100927		1		1
Z 0001	SURGE ABSORBER				ERZV14D621	Q9000599		1		1
-	CW-ASSY				FP2084A-801			1		1
-	FUSE CLIP				F220P	P2000064		1		2
-	FITTING				FR309A	S8000030		1		1
-	THERMAL CONDUCTOR				FB419	S8001781		1		1
-	FITTING				FR336A	S8001784		1		1
-	HEAT SHINK				20PB31/20PC31	S8001888		1		1
-	THERMAL CONDUCTOR				FB428A	S8001889		1		1
-	HEAT SHINK				FP2083A-601	S8001890		1		1
-	HEAT SHINK				FP2083A-602	S8001891		1		1
-	FITTING				FR315A	S8001892		1		1
-	FITTING				FR333-3019	S8001893		1		1
-	THERMAL CONDUCTOR				TC-30A(T0-3P)	S8001894		1		1
-	THERMAL CONDUCTOR				TC-30A(T0-3P)	S8001894		1		1

