

INSTRUCTION MANUAL
FOR
MODEL NBD-520G/U
POWER SUPPLY

JRC *Japan Radio Co., Ltd.*

Congratulations on your selection of the NBD-520 G/U POWER SUPPLY.

Before operating, please read this manual thoroughly in order to assure satisfactory performance of the equipment and prevent damage or failure.

This product has been produced under strict quality control. However should any trouble be found due to workmanship, kindly contact the JRC office or a JRC dealer.

CAUTION

Pay special attention to avoid over-heating your power supply!

1. BEFORE USE

The Model NBD-520G/U is furnished with the following. Check against the packing list.

Accessories	Model	NBD-520G	NBD-520U
Instruction manual		1	1
AC Cable (approx. 2m)		1	1
Fuse 5 A		2	3
Fuse 10A		3	2

2. OPERATING PROCEDURE

The front and rear panel views are shown in Figure 2.1.

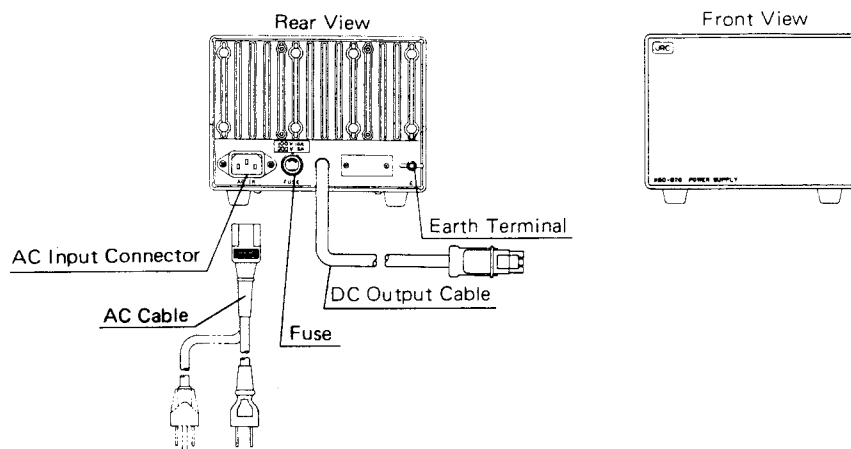


Figure 2.1 NBD-520 G/U Power Supply

Before connecting the DC output cable, make sure that transceiver POWER switch is set to OFF.

Connect the DC output cable to the transceiver, as shown in Figure 2.2.

NOTE: Not necessary to use the power cable furnished to the transceiver.

NOTE: The NBD-520 G/U can be energized and de-energized by turning on and off the POWER switch of the JST-series transceiver.

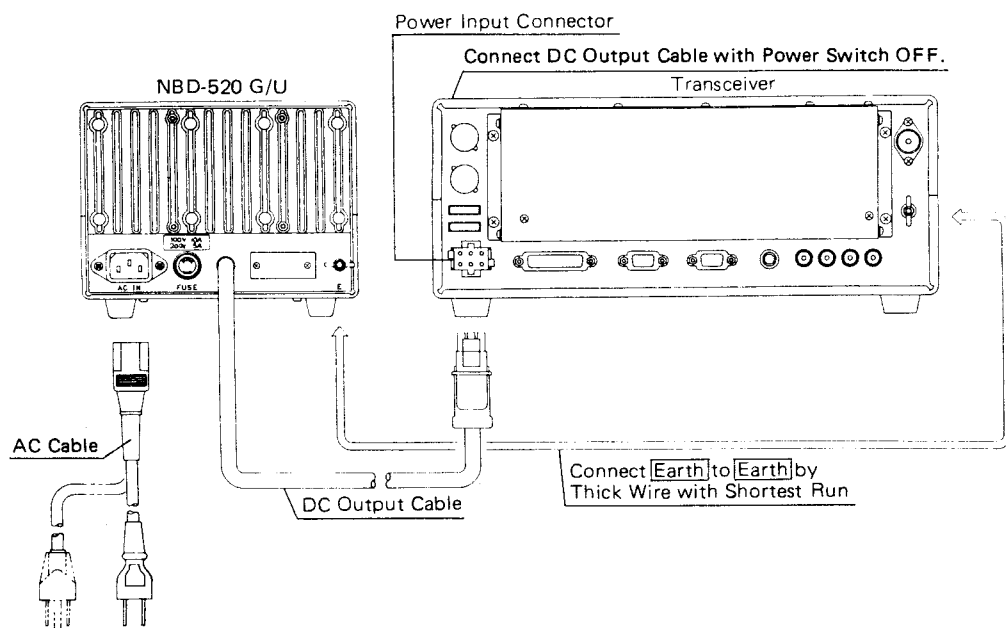
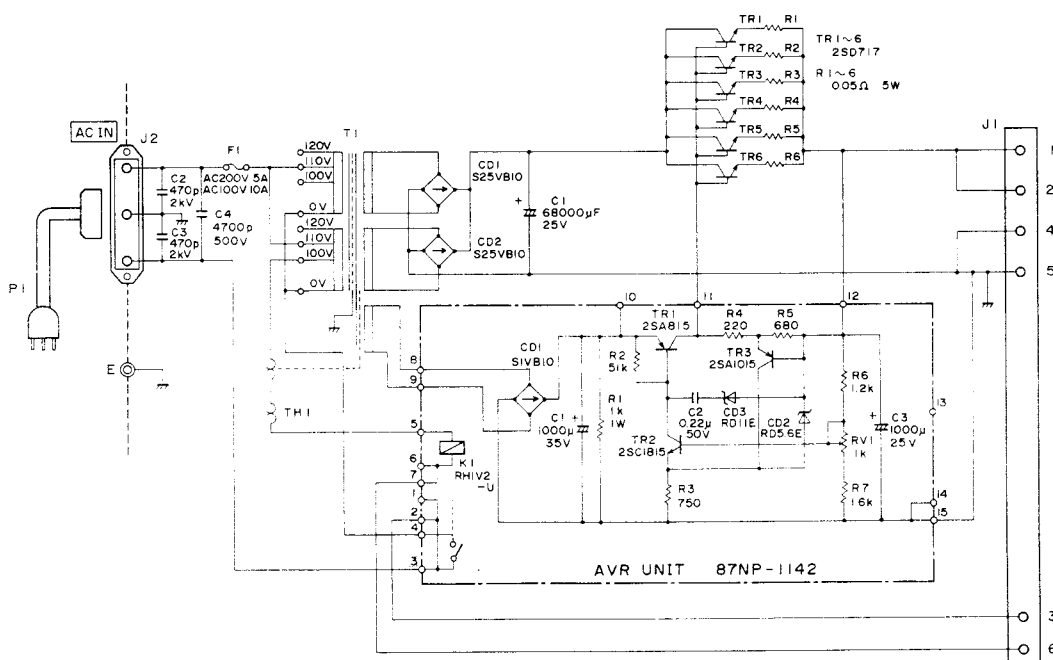


Figure 2.2 Interconnection of NBD-520 G/U and Transceiver

- (1) Shorting or overloading the output may cause the fuse blown. If blown, disconnect the power cable from the AC line and thoroughly investigate the cause. Then, replace.
- (2) The NBD-520 G/U incorporates the transformer which contains a thermal switch. It will automatically turn the power off, if the transformer temperature rises abnormally. As the temperature lowers, the switch automatically turns the power on. Activation of the thermal switch during operation suggests that the load is too heavy. In such case, reduce the load current or avoid long time operations, etc..
- (3) Install in a well-ventilated area as much as practicable. Avoid putting any matter on the power supply case.
- (4) Connect both the earth terminals using copper wire or copper braided wire with the shortest run.
- (5) Use the rated fuse only.

- (1) If the fuse is blown, disconnect the AC power cable and investigate the cause. Then replace.
- (2) There is no need to perform any maintenance to the equipment. If, however, adjustment should be needed or failure should occur, contact the Sales office where you bought.

Input Voltage:	220V AC $\pm 10\%$, 50/60Hz (for NBD-520G) 120V AC $\pm 10\%$, 50/60Hz (for NBD-520U)
Output Voltage:	13.8V DC, negative ground
Maximum Output Current:	30A for intermittent use
Voltage Regulation:	
Line Regulation:	Within $\pm 5\%$ with output current of 22A fixed against AC input voltage change $+8\%$, -10%
Load Regulation:	10% or less with AC input voltage fixed against output current change from 4 to 37A
Ripple Voltage:	Less than 0.1Vp-p at 13.8V, 30A
Protection System:	Over-heat and over-current protection
Power Consumption:	740VA, approx. at output current of 30A
Operating Temperature Range:	0° to 40°C
Dimensions:	W180 (180) x H130 (145) x D273 (327)mm () : including projections
Weight:	9kg, approx.



Schematic Diagram

6. AC VOLTAGE CHANGE

The input voltage is specified as follows:

NBD-520G 220V, 50/60Hz

NBD-520U 120V, 50/60Hz

Either power supply allows the AC input voltage to be changed by re-wiring its transformer tap, into any of 100V, 110V, 120V, 200V, 220V, 230V and 240V.

AC voltage changing procedure:

- (1) Disconnect the AC power cable from the primary power line.
- (2) Remove the upper cover. Refer to Figure 6.1.
- (3) Change the wiring of the transformer tap as shown in Figures 6.2 through 6.8.
- (4) When changing from the 100V-system to the 200V-system or vice versa, also change the capaci-

ty of the fuse housed in the fuse holder on the rear panel as follows:

100V-system 10A

200V-system 5A

- (5) Without the upper cover, connect the AC power cable to the AC line and energize for, at least, ten minutes, without a DC output load. During this time, check the power supply for abnormal condition and abnormal temperature rise of the transformer.
- (6) Connect certain DC output load such as the transceiver. Make sure of the power supply being normally operating.
- (7) Disconnect the AC power cable from the power line and attach the upper cover.

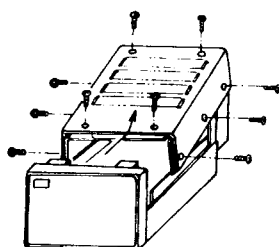


Figure 6.1 Removing the Upper Cover

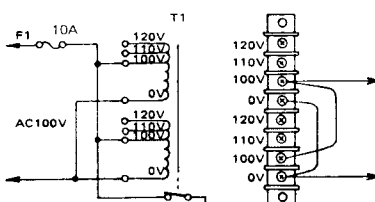


Figure 6.2 Connection for AC100V

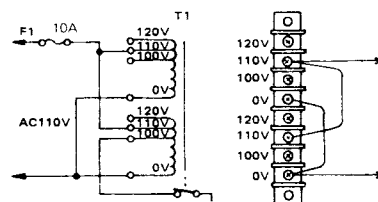


Figure 6.3 Connection for AC110V

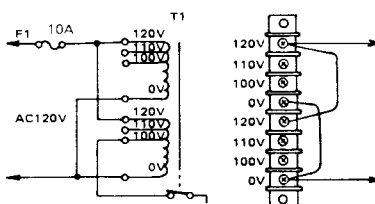


Figure 6.4 Connection for AC120V

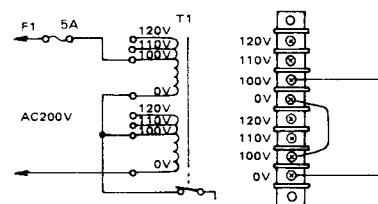


Figure 6.5 Connection for AC200V

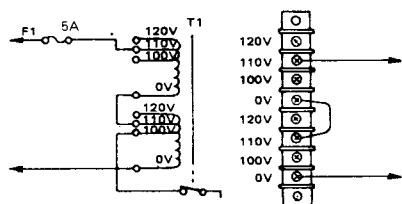


Figure 6.6 Connection for AC220V

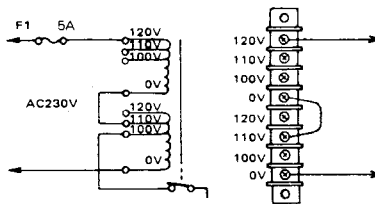


Figure 6.7 Connection for AC230V

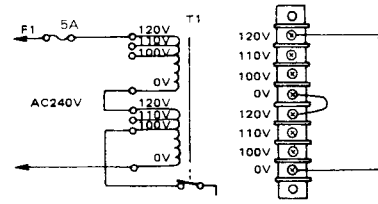


Figure 6.8 Connection for AC240V

For further information contact:



Since 1915

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