

REMOTE POWER SUPPLY

Model 407-P Series 2

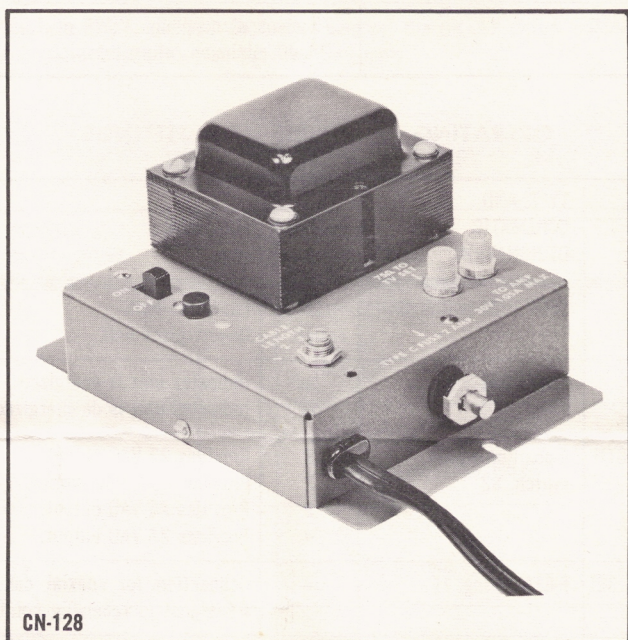


Fig. 1. Model 407-P Series 2

DESCRIPTION

Jerrold Model 407-P Series 2 Remote Power Supply provides an a-c operating voltage source between 22 and 30 volts for powering equipment such as converters, amplifiers, and relay receivers. In addition, the supply provides an isolated R-F signal path from the device being powered to a receiving point. Thus a-c power and r-f signal are carried on the same coaxial cable.

Although designed primarily for use in powering distant outdoor equipment, the unit can be employed as a general purpose supply in any application for which it meets the required specifications.

The supply consists of a tapped step-down transformer and filter network mounted on a chassis designed for indoor installation near a 115 VAC outlet. It is equipped with an on-off switch and pilot light, a selector switch for changing output voltage level in accordance with the cable length between the supply and the device being powered, a 2-ampere fuse for protecting the transformer from accidental short circuits, and two 75-ohm coaxial cable fittings. Two Jerrold F-59A mating cable connectors and mounting hardware are supplied with each unit.

SPECIFICATIONS

INPUT VOLTAGE	115 VAC, 60 Hz
OUTPUT VOLTAGE (switch selectable)	22, 23.5, 25, or 27 VAC at 1.05 A max. (maximum unloaded output is 30 VAC)
R-F PASS BAND	54 to 890 MHz
R-F ATTENUATION	1 dB maximum
R-F TERMINALS	75 ohms at maximum VSWR of 1.5:1 (14 dB minimum return loss)

OPERATING CONTROLS AND FITTINGS

NAME	TYPE AND SCHEMATIC DESIGNATION	POSITION	FUNCTION
ON-OFF	SPDT slide switch, S1	ON OFF	Energizes unit. De-energizes unit.
Pilot Light	Lamp, DS1	"on" "off"	Indicates unit is energized. Indicates unit is de-energized.
CABLE LENGTH	4-position wafer switch, S2	1 2 3 4	Provides 22 VAC output. Provides 23.5 VAC output. Provides 25 VAC output. Provides 27 VAC output.
75 Ω TO TV SET	F-61A fitting, J1	—	Connection for coaxial cable carrying R-F signal to receiving point.
TO AMP	F-61A fitting, J2	—	Connection for coaxial cable carrying R-F signal from, and a-c power to, device being powered.
TYPE C FUSE 2 AMP	2A Type C fuse, F1	—	Protects power supply from overload.

INSTALLATION

GENERAL

In choosing the type of cable and the appropriate transformer tap on the power supply for the length of cable required in a specific installation, the operating voltage required at the device being powered, as well as the maximum R-F signal attenuation that can be tolerated, must be considered.

The two F-59A connectors supplied with the Model 407-P are designed for use with RG-59/U cable. In the case of long cable runs, where voltage drop may exceed that which can be compensated for by the CABLE LENGTH switch, a cable with lower resistance will have to be employed. Similarly, if R-F cable attenuation is greater than can be tolerated, cable with lower attenuation characteristics than RG-59/U will be needed.

PROCEDURE

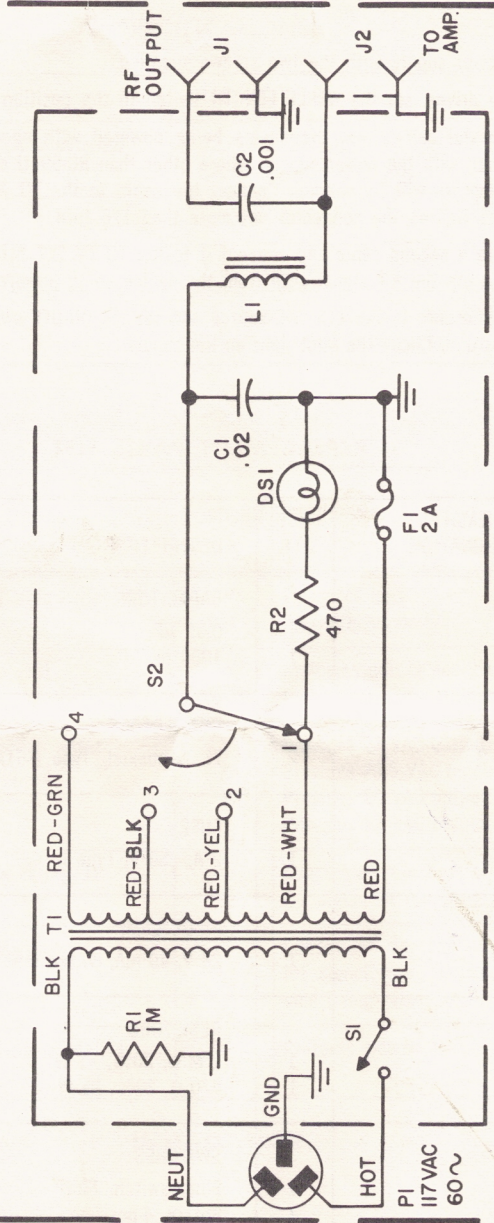
1. Mount the power supply with the two screws supplied.
2. With a screw driver, set the CABLE LENGTH switch to the position required.
3. Equip the coaxial cable from the device being powered with one of the two F-type connectors shipped with the power supply; where other than RG-59/U cable is used, appropriate substitute adapters will be needed. Connect the cable to the TO AMP fitting on the power supply; wrench-tighten the connector not more than 1/6 turn.
4. Similarly equip a second cable and connect it to the TO TV SET fitting on the power supply. This will complete the R-F signal path from the device being powered to the receiving point.
5. Connect the line cord to the 115 VAC source and set the ON-OFF switch on the power supply to the ON position. Check the pilot light on the supply.

REPLACEMENT PARTS LIST

ITEM	SCHEMATIC DESIGNATION	QTY.	DESCRIPTION	JERROLD PART NO.
1	C1	1	CAPACITORS	
2	C2	1	0.02 μ F 1000 pF	124-065 123-115
3	J1, 2	2	CONNECTORS 75 Ω coaxial, Type F-61A	C821-155-0
4	F1	1	FUSE 2 A, 250 V, Type C	101-500
5	DS1	1	PILOT LAMP 28 V, 40 mA, w. red lens	102-021
6	R1	1	RESISTORS	
7	R2	1	1 M Ω , 20%, 1/2 W 470 Ω , 20%, 1/2 W	112-743 112-323
8	S1	1	SWITCHES	
9	S2	1	Slide switch, SPST Rotary, 4-position	162-002 161-123
10	T1	1	TRANSFORMER Special assembly	C141-163

SCHEMATIC

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NOTE:
 1. ALL RESISTORS ARE IN OHMS, 20% 1/2W.
 2. ALL CAPACITORS ARE IN μ F.

B863-004-A

All data subject to change without notice.

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