

GYRO "B" PACK

The Gyro "B" Pack has been designed to eliminate "B" batteries in small electronic equipment such as radio control receivers requiring D C currents up to 6 milliamperes.

The standard "B" Pack is designed for either 30 or 45 volts or 67½ Volts D.C., up to 12 Ma can be drawn at 67½ Volts.

OPERATING PROCEDURE

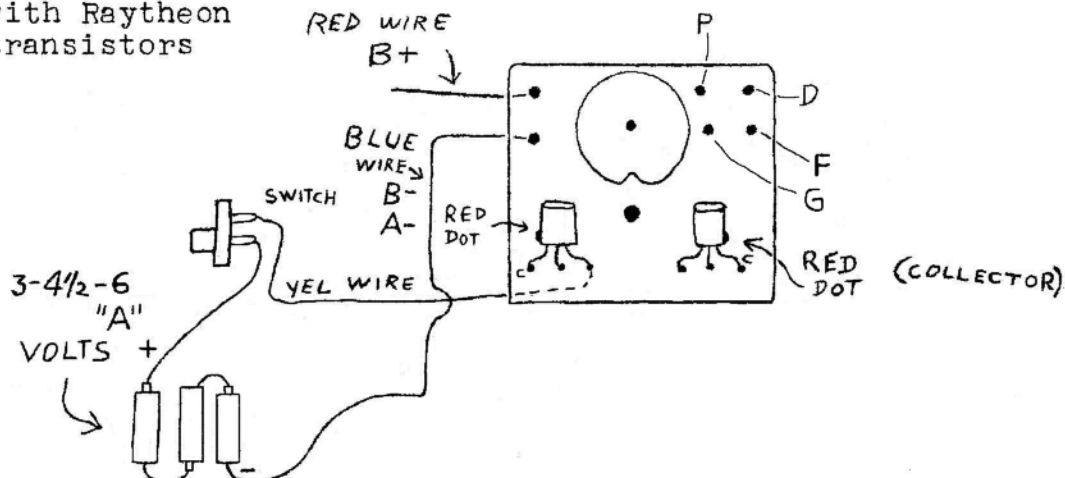
The "B" Pack is simple to install and use, requiring no adjustments. This unit is capable of many years of operation if not abused.

- (1) The "B" Pack can be set up for either 30 or 45 volts or 67½ Volts -- See Drawing Below
- (2) Use a separate "on-off" switch for the "B" Pack -- an SPST Slide type is satisfactory.
- 3) Connect the switch in series with the yellow wire to the "A" battery +
- 4) Connect black wire to -A Volts. This wire is also the B- connection.
- 5) Red wire is B+ connection.
- (6) Connect all wires to receiver. Double check wiring.
- (7) Turn on "B" Pack Switch.
- (8) Then turn on receiver switch. This procedure is necessary because some transistors will not start under load. Therefore, always turn "B" Pack power on before the receiver is switched "on".
- (9) Field check and adjust receiver (if necessary).

NOTES

Under proper operation the current from the A Volt supply will be between 25 and 100 Ma depending on the load current Follow instructions carefully -- an incorrect connection may instantly damage the transistors or other components, which have all been thoroughly checked prior to shipment and can not be guaranteed.

Red dot on outside with Raytheon transistors



For 30 Volts Output - use 3 Volts -- connect "D" to "P"
 For 45 Volts Output - use 4½ Volts -- connect "D" to "F"
 For 67½ Volts Output - use 6 Volts -- connect "D" to "P"
 For 67½ Volts Output with current up to 12 Ma., use 2 additional transistors 2N273 in parallel with those originally called for (four altogether)

GYRO "B PACK"

PARTS LIST for "B PACK" KIT

1- Drilled & Eyeletted base	50¢	3-1ft. lengths of wire		1-Gyro "B Pack Transformer	
2- "B Pack" Resistors @10¢	20¢	..Red, Yellow, Blue	.05	2-"B Pack" Diodes \$3.50
2- "B Pack" Capacitors @20¢	40¢	6-Fleaclips	.15	.. @76¢	\$1.52
		2-1mf 50V. Capac.@55	\$1.10	1-Set of instruct.	.25

The GYRO "B PACK" Has been designed to eliminate "B" batteries in small electronic equipment such as Radio Control Receivers.

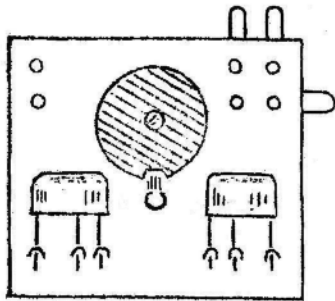


FIG. 1 (front)

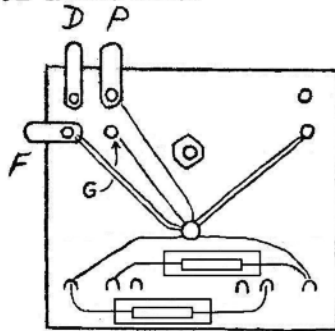


FIG. 2 (rear)

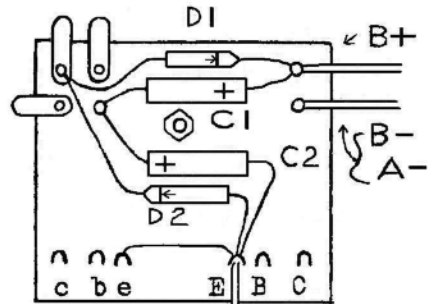
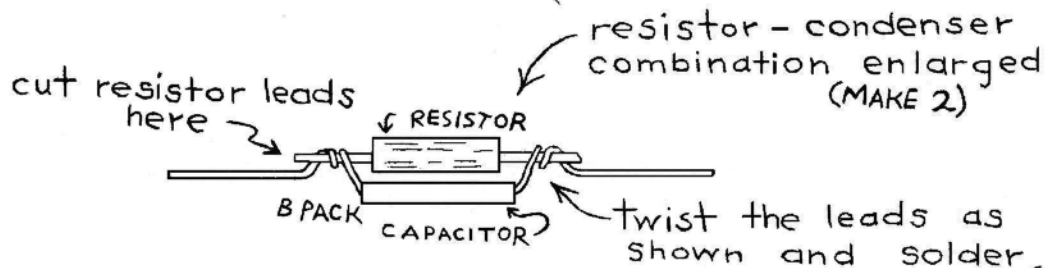


FIG. 3 (rear)
+A



Outputs of 30, 45, and 67½ Volts D.C. are available with currents to approx. 6 Ma. The "B Pack" acts as a "DC Transformer" boosting small escapement or flashlight battery voltages approximately 10 times. Consult drawings for connections. For 30 Volts Outp.-use 3 Volts-connect "D" to "P" For 45V. Outp.-use 4½ V.-join "D" to "F" For 67½ V. Outp.-use 6V.-join "D" to "P" For 67½V. Outp. with current up to 12 Ma, use 2 additional transistors 2N273 in parallel with those originally called for (4 altogether). TRANSISTORS REQUIRED-for the Gyro "B Pack", 2 of almost any good "PNP" type.

- For best results use 2N273

CONSTRUCTION - The Gyro "B Pack" is easy to assemble and use. Carefully follow the diagrams which indicate exactly where each wire and component is placed. Be careful when working with the miniature components and thin wires. Use a hot soldering iron with a clean tinned tip. Too much heat applied to the diodes or condensers may damage them permanently.

- (1) Insert eyelets. Insert 6 fleaclips. (Items marked cbe and EBC in fig.3) Push them in holes fig.1 side with sharp edge downwards.
- (2) Mount "B Pack" Transformer with small nut and screw on side "fig.1" and thread wires through hole. Avoid pinching or breaking the 6 thin wires.
- (3) Locate the two thicker reddish single wires and carefully thread each through the holes in the fleaclips "C" and "c". Do not pull tight.
- (4) Locate the double reddish (thicker) wire and thread through eyelet marked "A-B-".
- (5) Remove ½" insulation from blue wire and insert in eyelet marked "A-B-".
- (6) Solder eyelet marked "A-B-". It is not necessary to scrape the thin transformer wires before soldering.
- (7) Locate thin double wire and thread through eyelet "F", and solder.
- (8) Locate thin wire with knot and thread through eyelet "P". Solder.
- (9) Locate other thin wire. Thread through eyelet "G".
- (10) Insert 1 mf 50V. capacitor C1 in eyelets "B+" and "G" with "+" at "B+".
- (11) Insert other 1 mf capacitor C2 in eyelet "G" and fleaclip "E", with "+" at "G". Continue wire from "E" to fleaclip "e".
- (12) Solder eyelet "G".
- (13) Insert one Diode (D1) in eyelets "D" and B+ with BAR closest to "B+".
- (14) Remove 1/2" insulation from RED wire and insert in eyelet "B+". Solder eyelet "B+".
- (15) Insert other Diode (D2) in eyelet "D" and fleaclip "E" with BAR closest to eyelet "D".
- (16) Solder eyelet "D" and fleaclip "E".
- (17) Remove ½" insulation from YELLOW wire and wrap around fleaclip "e". Solder this wire which will connect to A+.
- (18) Take one "B Pack" Resistor and Capacitor and connect in parallel as shown in drawing.
- (19) Connect this between fleaclips "C" and "b".
- (20) Connect other Resistor and Capacitor in parallel as before.
- (21) Connect these between fleaclips "c" and "B". This completes the "B Pack".

Recheck wiring & soldering carefully before operating.