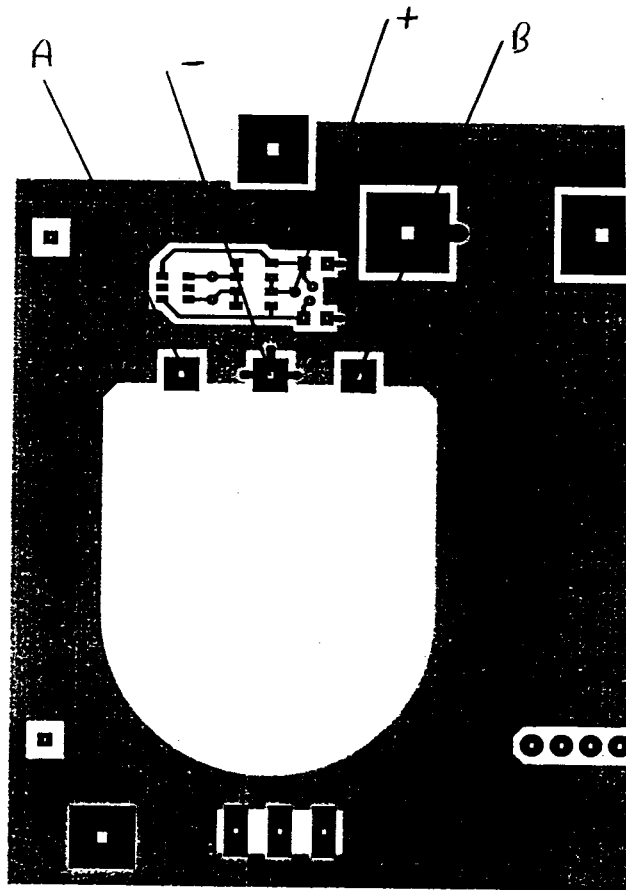# Fitting instructions for Bourns optical rotary encoder

1. Remove top cover using a 2.5mm hex key
2. Carefully pull up the speaker terminal connectors to release the speaker wires.
3. Remove the bottom cover using a no. 2 posi-drive screwdriver.
4. Remove two front panel hex screws.
5. Unscrew the two screws from the rear of the front panel that secure the PCB.
6. Remove tuning knob. (1.5mm hex key)
7. De solder and remove existing Alps encoder.
8. Offer new encoder to board and observe that the bush size is larger on the Bourns item.
9. Using a reamer or similar enlarge the hole so that the new encoder is an exact fit. If you have an early issue PCB cut the locating lug off the encoder body. (Newer boards have a hole drilled to accommodate this) Fit the encoder and tighten the nut.
10. With a large counter sink bit, taper the front of the enlarged hole so that the earth plane does not touch the bush of the new encoder.
11. Make the wire connections using 4 pcs of wire 8mm long. (The encoder has 5 connections of which the unmarked one is not used.)
12. Later issue PCB's have the connection points adjacent to where the encoder mounts and the connections follow the same order as the pins, the pin which is not used has a corresponding unused hole on the PCB.
13. If you have an early issue PCB the connections should be made as shown on the accompanying sheet.
14. Fit the encoder secure with the nylon washer, star washer and then finally the nut.
15. Re assemble using new knob (shaft diameter is slightly larger)
16. When fitting cases fit top first (do not over tighten) followed by bottom which may be a tight fit.

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