KENWOOD

Technical Information Exchange

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TS-530/820/830 Flex Bandswitch Coupling Replacement

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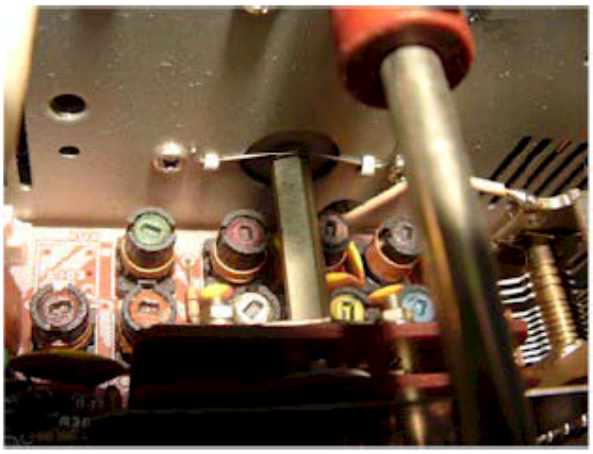
TS-530/820/830 FLEX BANDSWITCH COUPLING

A common point of failure in this radio series is the plastic bandswitch coupling located just inside the PA compartment.

This coupling connects the back deck of the bandswitch to the rest of the bandswitch assembly. The back deck supplies the "detent" or spring-loaded indexing for the entire bandswitch assembly. If the coupling cracks, breaks or becomes loose, the bandswitch indexing will become "soft" or non-existent and proper bandswitch indexing may not occur on all bands. This will be evidenced by intermittant receive or transmit performance which may or may not clear up as the bandswitch knob is "rocked" slightly.



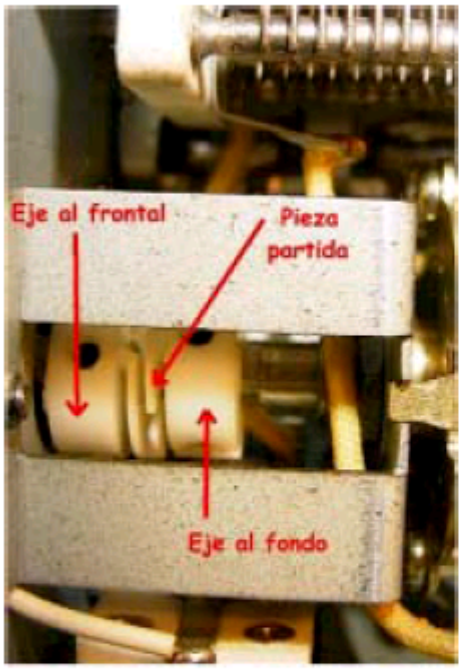
WARNING: Hybrid radios such as the TS-530, -820 and –830 use lethal voltages in their internal circuits. Do not attempt this service unless you are trained in handling high voltage and are completely confident in your ability to safely repair such circuits!

To inspect the bandswitch coupling, first unplug the radio and remove the covers. Removed the PA enclosure cover. **GROUND THE ANODE (TUBE TOP) CONNECTORS WITH AN INSULATED SCREWDRIVE CONNECTED TO CHASSIS GROUND WITH A TRUSTED CLIP LEAD. IF YOU CANNOT DO THIS OR DO NOT UNDERSTAND WHY IT MUST BE DONE, STOP HERE AND GET HELP FROM A MORE EXPERIENCED HAM RADIO TECHNICIAN.**

Inspect the coupling for cracks around the setscrew holes (use a bright light; rotate the bandswitch as needed to inspect all four setscrew holes). If you see any cracks, replace the coupling (Kenwood part number D22-0409-05). **You will need a 1.5mm allen wrench**. It's not hard to do but you have to maintain band alignment as you rotate around to get to all the screws. If you see no cracks but still have problems with soft indexing, simply tighten each setscrew to snug plus about 1/8th of a turn. NO MORE or the coupling will crack. If the coupling cracks while being tightended, it's probably heat-crazed and needed to be replaced anyway. Replace the coupling.

When loosening the setscrews, leave one length-wise pair tight as you loosen the other. Then rotate the band switch to get to the 2nd pair or setscrews. Note at this point which band you are on; you will need to make sure things are lined up with the new coupling.

Remove the spring tension device that bears down on the bandswitch shaft, as shown in the photo. Note it's orientation and put it in a safe place.



Now loosen the 2nd set, then pull the bandswitch shaft part way out the front of the rig. Use whatever tools you need to wiggle the old coupling out of the hole in the pa cage, and the new one in, noting which way your setscrews should be oriented so you can follow the same process going back together.

DON'T OVERTIGHTEN THE SETSCREWS! Snug them up and then no more than a 1/8th turn again. The coupling is a relatively stiff plastic; it will break if you treat it like a metal coupling.

If you notice on check-out that the rig peaks up OK on receive on say, 20M but you can't get a plate dip with the loading control advanced about 20 percent (into dummy load of course), you may have dis-oriented the plate tank circuit switch with the rest of the band switch. Easiest way to fix this is with a grid-dip meter. That's another story!

GOOD LUCK AND BE CAREFUL

credits:
Bill K0ZL, text and Photo 1.
Jose, EA4YD, Photo 2.