AR7030 CLICK ENCODER REPLACEMENT

In the event of a failure of either the volume or <> spin wheel encoder, replacement can be carried out with the aid of a small number of tools (various posidrive screw drivers, a hex wrench, soldering iron and solder sucker). To carry out a replacement, proceed as follows;

Remove top and bottom cases (4 x hex screws, 6 posidrive). Remove the bottom case first - as this tends to trap the top case via the side panels.

Remove the front panel (2 x screws and 2 x hex screws). Remove the two posidrive screws first. These are located at each end of the rear of the front panel passing through the micro and display boards. The metal spacers will drop out if the screws are removed completely. Once the front hex screws are removed, the front panel will now pull off forwards. Be careful not to scratch the main tuning knob when doing this.

Remove the left hand side panel. This is not strictly necessary if only the < > spin wheel encoder is to be replaced but eases access (3 screws on bottom and one at rear).

Remove the large shielding can from main PCB (4 screws on underside of board).

If replacing the < > spin wheel encoder (on later sets), an earthing strap will have to be desoldered. On most sets the strap just traps between the encoder and front panel but on later sets is extended to hook round the LCD frame.

The click encoder knobs can be removed by undoing the small hex grub screw.

The encoders themselves comprise of the encoder and a metal frame that holds it in place. Inside the set, de-solder the three encoder pins (from the top of the set) and the four holding lugs on the frame (2 from the top of the set and 2 from the bottom). The encoder pins will desolder easily enough using either a solder sucker, solder wick or a de-soldering station but the frame lugs will require a reasonable sized soldering iron (50W with a suitable bit should do). The encoder should now pull away from the board with a small amount of force.

The metal frame will now have to be split from the encoder. To do this, flex the side of the frame so that it passes over the holding pieces on the encoder. At this point, it is a good idea to clear any remaining solder from the board holes and the encoder frame legs.

Click the frame on to the new encoder. If a small plastic lug protrudes through the rectangular hole in the side of the frame, cut it off.

Refit the encoder to the PCB. When soldering back in place, make sure that the encoder sits flush back to the board. Only a small amount of space is available

inside the set so be careful not to melt any other components with the soldering iron. Check your work for any solder bridges or splashes. Refitting of the knobs can be done either before or after the front panel is re-fitted.

Re-building the set is the reverse of the above procedure, fitting the front panel and earth strap first followed by side panel, top cover and bottom cover.

Points to note when rebuilding; Make sure that all buttons and knobs operate cleanly through the front panel and that none of them foul it. Test the operation of the new encoder before finally fitting the covers.

It is quite a good idea to re-fit the top case before the side panel screws are fully tightened to ensure correct location of

the side panel. Be careful to only lightly tighten the top case screws as they will easily strip if too much force is used.

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