

Yaesu FT990 Tuner Mod

As you know the tuner in the FT990 works in the TX path only. This mod removes the tuner from the TX path and places it in the RX/TX path allowing it to work in RX mode as well.

PROCEED AT YOUR OWN RISK, I AM NOT RESPONSIBLE FOR ANY DAMAGE YOU MAY CAUSE AS A RESULT OF PERFORMING THIS MOD

Remove the top and bottom covers and place the radio upside down, with the front of the radio facing you. Remove the 4 screws that secure the tuner unit



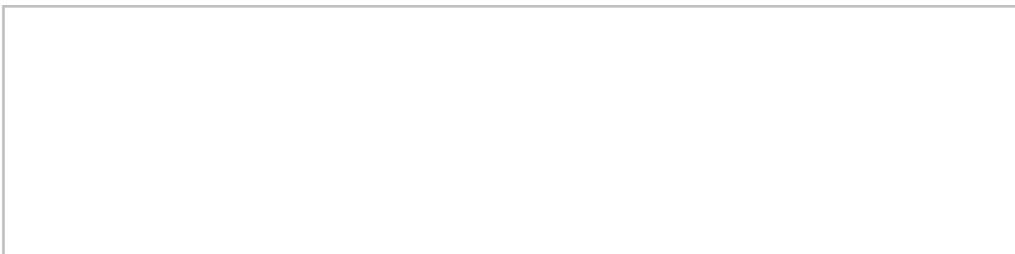
Remove the three cable assemblies from the main board



Remove the three cable assemblies that connect to the tuner unit from the main board. (Note each cable has one wire a solid color different from the rest)



**Remove tuner unit from radio by lifting up and to the right.
The filter board and final amplifier board are located under the slotted metal cover below tuner unit.**





Remove the two coax harnesses from the rear of filter board.



The metal cover is a pressure fit piece; there is only one screw in the center to remove. Lift up by placing your fingers in the top right and bottom left corners and gently work the shield until it comes loose. Final amp board is on the left, filter board is on the right.



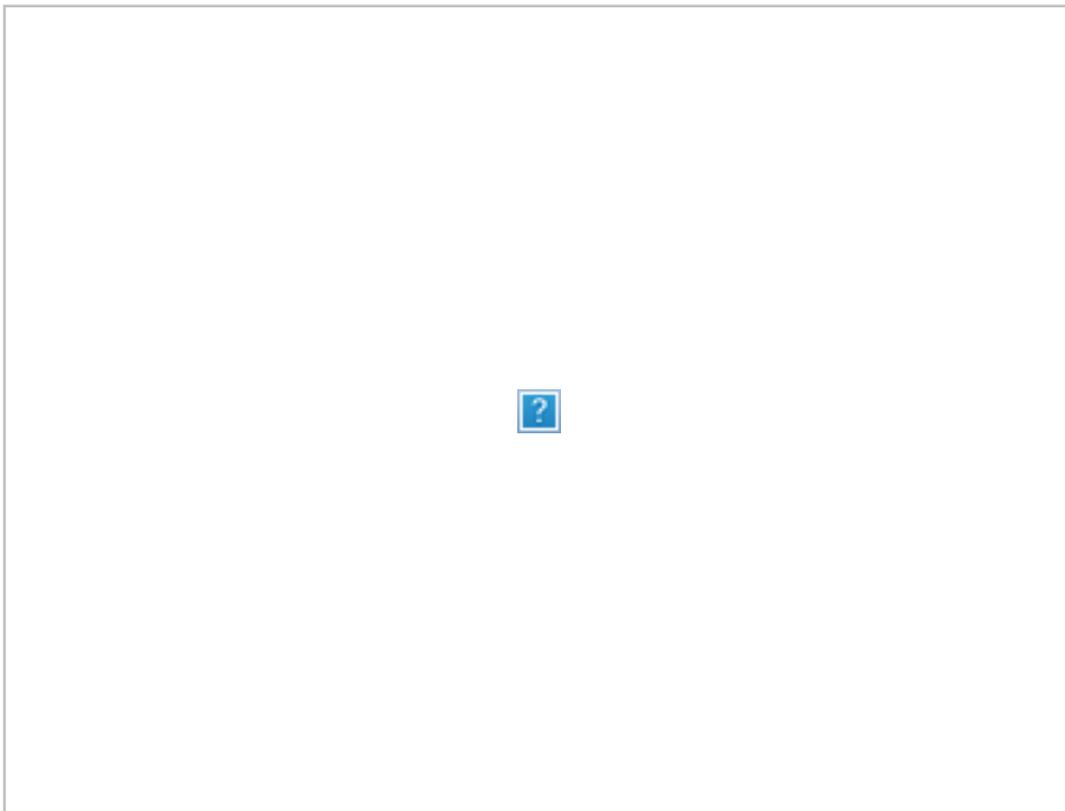
Remove the RX antenna coax harness at back of filter board (J6006)
Unsolder the coax cable from the rear antenna connector



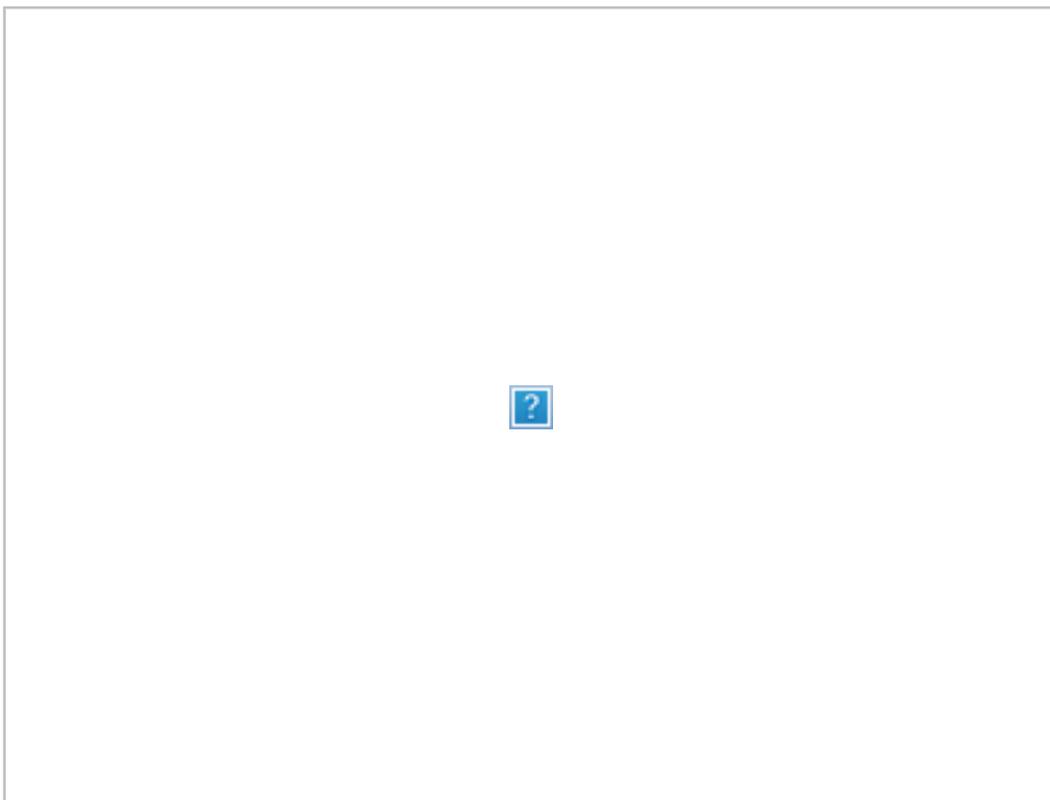
Remove TX IN coax from front of filter board (J6001)
Remove the two wire cable (red, white) that runs from the filter board to the final amp board. The cable only disconnects on the final amp board (J6103)



**Remove the four screws that hold the filter board in place.
Carefully remove the filter board from the radio.**



Unsolder the coax harness from antenna jack, J6005. The input of tuner will connect here. Turn filter board over and solder jumper across RL6015 as shown



**Cut the end off the blue coax harness coming from tuner unit. Strip and tin center conductor and shield.
Solder this end into J6005 on the filter board, where the antenna coax was removed**





Mods to the filter board are now complete. Carefully route the filter board back in place and secure with the 4 screws, careful not to pinch any cable assemblies. Cut the end off the remaining tuner coax and prepare end as above. This cable will solder to the ANT connector on rear chassis. Run the loose tuner coax through the center of L6015 (as the original coax did) and solder center conductor to antenna jack.

Note there is no provision for a ground connection so I placed a solder lug under the top left screw of filter board and soldered the coax ground to this.

Replace the RX coax back in to J6006 at rear of filter board.

Replace coax from final amp back into J6001 at front of filter board.

Replace the red/white cable back into J6013 on final amp board.

Replace the shield back over final amp/filter board.

Install the tuner unit back into radio. While carefully routing the coax and cable harnesses as you go.

TO TEST TUNER:

With tuner off, tune to a 10m frequency, select your 10m antenna and note the s-meter level

Activate the tuner and check noise level again

Turn tuner off, tune to 80m frequency and select proper antenna. Noise level should be very low

Activate tuner. Noise level should increase substantially

Reassemble radio