

hupRF Panoramic Adaptor Installation – IC746

These notes are to assist with installation of the PAT board in the 1st IF of the ICOM IC46 – 69.0115MHz – this gives access to all receiver options on the main receiver.

These are simply guidance notes, derived from the Service Manual – they have not been cross checked with a live rig, and therefore should be accepted as potentially having limitations. The information provided here is given in good faith, but without any verification.

Fig 1 shows a block view of the Rx path of the rig, with the recommended tapping point shown at the output of the 1st IF filter F1231A. In fact there are two filter units (A and B) and the tapping will be taken between them.

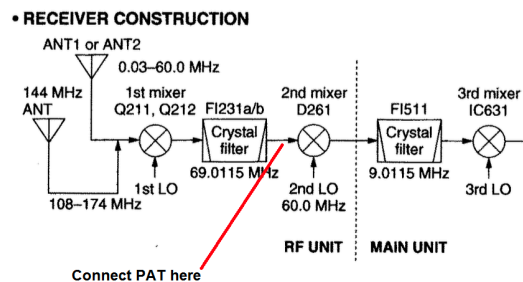
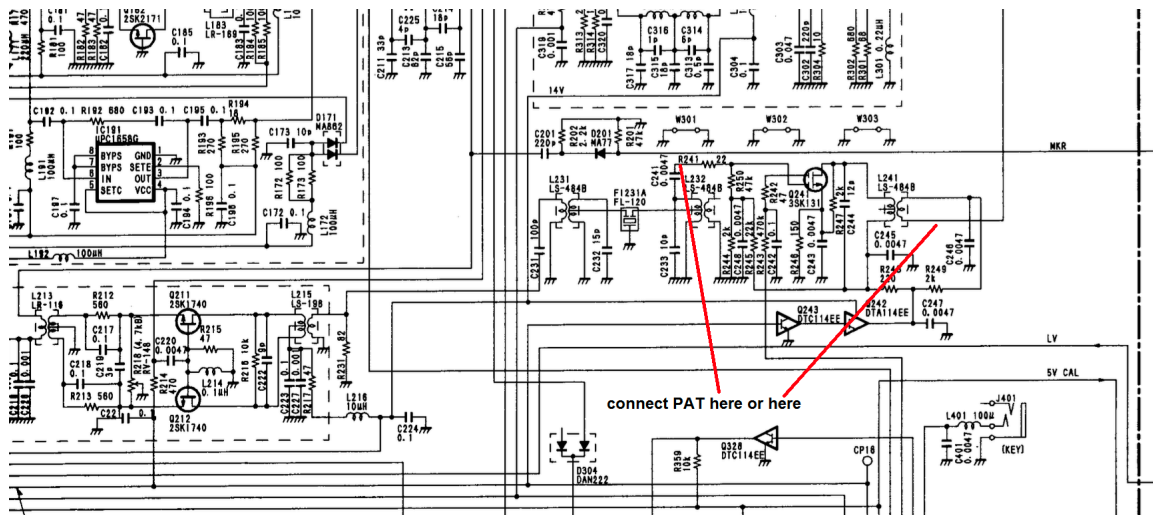


Fig 1 – IC746 partial block diagram

Fig 2 shows an extract of the RF Unit PCB schematic diagram, around the area of the 1st mixer, filter and post-filter amplifier. There are two potential connection points shown – at the output of the filter, and the output of the post-filter amplifier. On examining the PCB layout it is clear that the second of these is the better choice, as it looks to be accessible from the top side of the RF Unit PCB – see Fig 3.



D251, on the top side of the PCB. This has two advantages. First the amplifier will give better signal levels, and at this point we are tapping in between the two IF filters, so the skirt will not be so steep, meaning the useful display in the SDR screen will be a bit wider than with both filters in line.

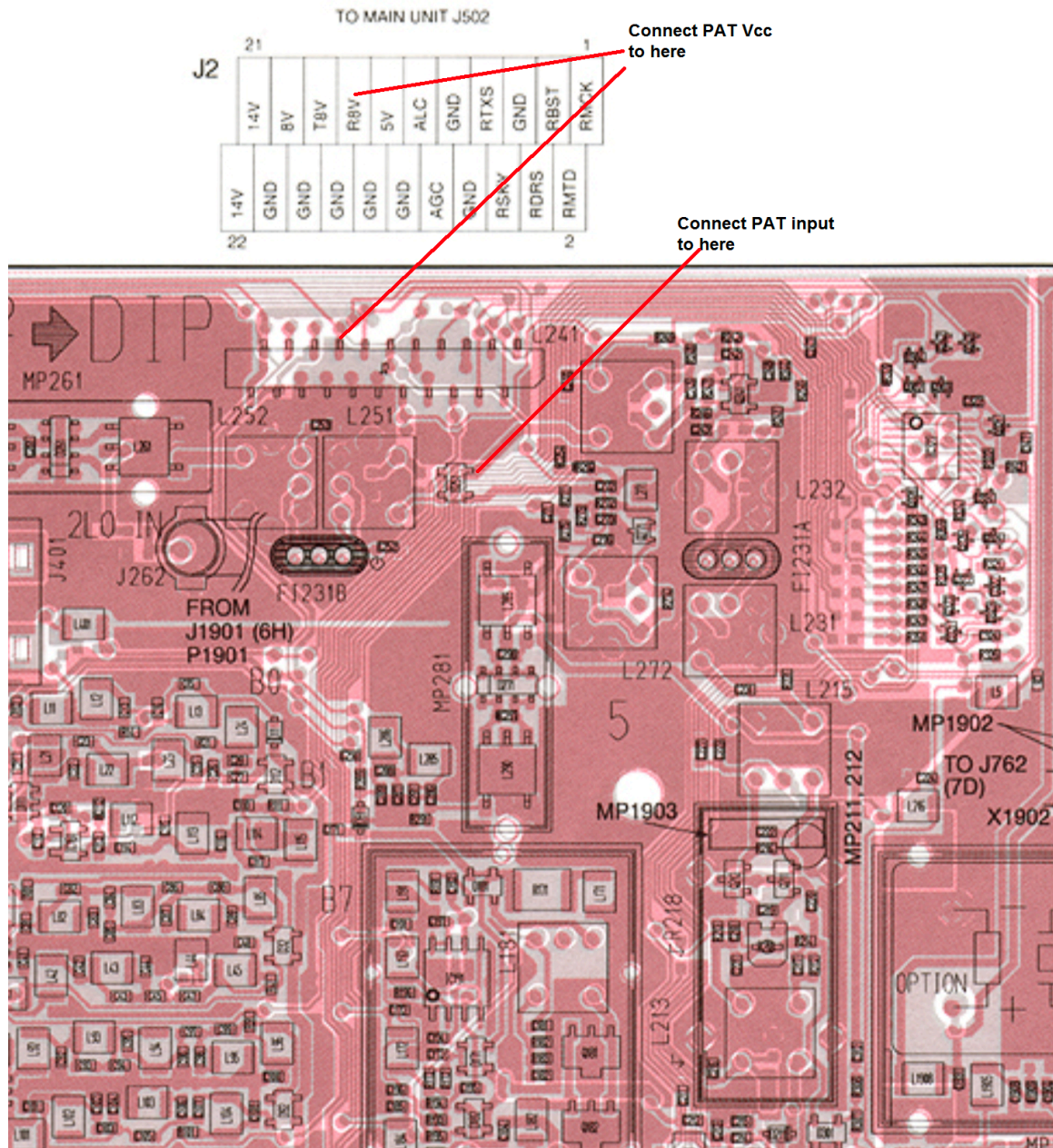


Fig 3 – RF Unit PCB connections

Unfortunately, the scanned resolution of the PCB layout is poor, but F1231A is identifiable, and L241. The PAT input connection point is shown as the upper right side pin of D251, near L251, and the power connection can be picked up from pin 15 of the J2 connector (R8V) to provide self muting on Tx. If this is not required, then 8V can be picked up at pin 19 of the same connector (two to the left in Fig 3).

Extracts from the ICOM IC746 Service Manual are acknowledged as the copyright of the ICOM Corporation.