

NOTES & ERRATA

FM IF SUBSYSTEM (July 1975, File No. 2/TU/42): When the article was written, we stated that we would describe how the complete tuner could be aligned without the aid of a signal generator. However, due to an oversight this description was not given. The task of alignment without the aid of a generator is not as easy but provided that an FM signal of sufficient strength is available, it is possible to do so at least a reasonably satisfactory job.

We will assume that the IF board and the front end units have been completed and that they are ready for alignment. A good aerial system should also be available and connected to the front end. Fortunately, at this time of writing, the ABC FM transmitter has been put into operation under test transmission conditions and the signals so available in the Sydney area are very strong. It is possible that similar transmissions would be available in Melbourne and possibly Adelaide and Canberra.

Before attempting to look for any of these transmissions for alignment purposes, it would be a good idea to check the availability of a signal by using a portable or some other FM tuner. Assuming that the signal is on, switch on the new tuner and search for the signal. It should be found with the tuning gang about two thirds in mesh. Having found the signal, its position on the dial should be corrected by either

opening up or compressing the oscillator coil as previously described in the article on the front end. The aerial and RF coils should be similarly treated to get maximum signal strength as indicated on the signal strength meter.

For the present, this is all that need be done as far as the front end alignment is concerned, as there is only a small band of 92 to 94MHz available at present for FM broadcasting.

By now, you may have a very strong signal, with the meter deflected full scale. To carry out the alignment of the discriminator, the signal strength should be reduced. This may be done by removing the aerial and substituting a short piece of wire, connected to one terminal, so that about half scale reading is obtained on the signal meter.

Now rock the tuning control to determine the point of maximum meter reading. This will set the signal very close to the centre of the 10.7MHz IF pass-band and the tuning control should not be touched for the rest of the adjustments. The rest of the adjustments are given in the last column on page 43 in the article on the FM tuner for July, 1975.