
the background noise is not brought up as much in the pauses between words. If, however, the signal is suffering from 'flutter fading', which sometimes happens, the faster position can help the AGC cancel out the variations in signal strength.

## Noise blanker

There are all sorts of both natural and man-made interference on the short wave bands. Noise blankers are designed to get rid of interference that consists of short, strong pulses. Interference from a car's ignition system is like this. The effectiveness of noise blankers varies enormously from receiver to receiver and from one type of interference to another. The only advice I can give is try them out.

## Clarifier/ RIT/ IRT

These are all names for the same thing. The allow you to move a receiver's frequency a few kHz relative to the main dial. This is very valuable for listening to SSB conversations, where two stations may (for a variety of reasons) not be on *exactly* the same frequency.

## Squelch

This isn't as disgusting as it sounds. It is simply a gadget that cuts off a receiver's audio if there is no signal at the input. This cuts out the irritating hiss. Squelch controls are universal on FM receivers but rare for SSB.

## Transmitter controls

So far we've dealt exclusively with a receiver, or the receiving section of a transceiver. The transmitting parts are, perhaps surprisingly, simpler. The main trick to learn is 'tuning-up', and even this has been eliminated by the latest solid-state designs.

Tuning up is the process of matching the *power amplifier*, ie. the final stage of transmitter, to the aerial feeder cable. Matching is necessary to ensure the most efficient delivery of power from the PA to the feeder — if any power isn't transferred it does not just disappear, it heats up the PA components. With a severe mismatch, a PA can suffer serious damage.

Most rigs have two PA tuning controls. The first is marked *tune, tuning, anode* or *plate*. The second is marked *loading*. To tune up set the controls to the position recommended in the instructions. Make sure that the aerial, or better still a dummy load if it's the first time you have attempted this, is connected to the rig's aerial socket.

Turn the mic gain/carrier/drive control fully anticlockwise and switch the mode switch to CW/tune. Switch to transmit. Measure the PA anode current on the meter — there is often a meter switch to select different measurements. Adjust the carrier and preselector controls to increase the current, but not too much! If necessary back off the carrier, then peak the preselector for maximum.

Having got a bit of drive to the PA the next step is to resonate the anode circuit. Adjust the anode control of minimum current.

After this stage the PA should be 'fine-tuned' to optimise the output power. The loading and anode tuning controls should be alternately adjusted for maximum RF. This should be done at maximum drive.

Having tuned up the PA the only other important adjustment is to set the mic gain or carrier control (depending on whether you're using SSB or Morse). The manufacturer usually gives instructions on how to set this. The important thing is to avoid tuning the mic gain to high on SSB, because 'flat-topping' can occur, causing your signal to 'splatter' onto adjacent channels. This would not make you popular!

Driving a transmitter is easy; it's the receiver that takes the skill. It's well worth SWLing before getting a licence to learn how to operate one. What's more in the process you'll pick up a lot of tips that'll help you through the RAE. ●

**RIT — allows you to move a receiver's frequency a few kHz**