

FORUM

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members to get a feel for what you should look out for.

Power

If you're thinking of buying a transceiver, consider whether you actually need high power. There are basically two power levels with commercial transceivers — 10W output or 100-150W output. Remember that it isn't the PA that gets the signals to the other station, it is the aerial. A few pounds spent improving it is a much better investment than a few extra Watts. Also, if you can't hear them you can't work them! There is no doubt that low power (QRP) operation (although 10 Watts is a bit high for QRP) is more demanding in operator expertise than high power (QRO) and you will have rather more difficulty in working DX using 10W to a simple aerial, than with full legal power to a 3 element beam, but which will give you the greater satisfaction? I would suggest that the expertise gained under more difficult conditions will stand you in good stead in years to come.

Buying from a dealer

If you buy a new rig, or even secondhand via a dealer, one point to bear in mind is servicing. One of the reasons why some dealers are cheaper than others is that they cannot provide full servicing facilities. Any sensible dealer will include an amount to cover possible maintenance in his price and something towards getting hold of all the test equipment needed to service modern equipment. He also has to carry a stock of spares for each rig if he is going to do the job properly. So although you pay more initially, you have the advantage that if something goes wrong, the chances are that it can be put right quickly, without waiting for the rig to go off to a service centre, or for spares to arrive from overseas.

Buying secondhand

The dictate *Caveat Emptor* or 'Buyer Beware' is very much to the fore in the secondhand market. Hence the reason for suggesting that you get your hands on the rig for a while before buying. Most amateurs are honest when asked about any problems with the rig, but if you have doubts then consider

whether you should buy. If you are misled, then you do have recourse in law, but it can be a long job and may not be worth pursuing.

Home construction

You can of course build all or some of your equipment yourself. I always admire anyone who can say during a contact that his equipment is home built, especially if his signal is first class. It is a satisfying experience to build your own and get it working, even if you didn't design it. At the end you will have learned a lot, and probably be keen to move onto something more complicated. I doubt that you would want to reproduce one of the black boxes on the market, as the thing with home brew gear is that you can design in the features you want, not what the manufacturer thinks you want. The cash angle looks different of course, and it is possible to get on HF CW for under £10, even under £5 if you want. You can certainly build something decent for £50-£100. Most magazines, including this one, carry designs for transmitters/receivers and a browse through past issues (you can beg or borrow copies of most magazines from other amateurs or get back copies from the publishers in most instances) should provide inspiration. Check that you can get all the parts before you start though — some of the older designs contain components which may be difficult to replace. A case in point is the LM373 multimode IF chip which was used in a variety of designs, but is now obsolete and cannot be replaced without major circuit changes.

The shack

All of us have to operate from somewhere, be it the living room, bedroom, cupboard under the stairs, or a purpose built/adapted room. The complexity and facilities required will depend on your interests. If you are a non-constructing, single-band VHF operator then very little space will be required, and your ancillary equipment should be reasonably limited. The multi-band operator with several rigs, tuning units, etc will need more space, and if you construct as well then even more must be allocated if possible (XYL allowing etc). The shack should be designed for operator comfort, convenience and not

the least safety.

Taking the last point first, whatever you operate will almost certainly need the mains supply, either direct to the rig, or via a power supply unit. Make sure that everything is correctly fused as recommended by the makers, and that each piece of equipment has its own outlet — never use multiway adaptors. One sensible precaution is to have a prominent master switch, away from the immediate operating position, with its purpose clearly marked. In the unhappy event that someone has to get the power off because you're attached to the mains somehow, they won't have to grope for the switch under the bench, and possibly endanger their own lives in the process.

It's volts and jolts but 'mils' that kills

Always respect any potentially lethal voltage. Not so long ago, one of my locals was found dead after inadvertently electrocuting himself. It does happen, and he was a man of long practical experience. The old adage of 'one hand behind the back' while working on live equipment is still a good one.

If you do a lot of constructing, try to avoid using the operating position as the work bench. There is nothing worse than scrabbling around under a pile of debris for the log, or a pencil, and you will scream when a piece of molten solder ends up melting your rig's meter cover, or a piece of wire ends up inside the ventilation holes and does a nasty.

To strike a lighter note, there can be hazards involved in using the shed at the bottom of the garden for the shack. Many years ago, one of our club members was peering inside a piece of equipment trying to work out why the thing kept drifting about in frequency. After a short period we noticed a slight movement at one place, and after a closer look saw an insect emerging from inside a tubular ceramic capacitor in the VFO! So, if your rig drifts around, try spraying it with insecticide rather than *Electrolube* — it might do the trick!

Operator comfort

So many people ignore this, but it is one of most vital aspects of any shack. Like many things, a happy and comfortable operator is a good operator (unless he also has the whisky bottle handy) so pay attention to layout.

The main TX/RX should be in the middle, with everything else positioned around it for maximum accessibility depending on use. The rig is generally at bench level so that you don't have to reach to operate it and it should be placed so that your arm doesn't tire after extended periods of operation. It needs to be far enough back on the bench to get a log book and notepad in front of it. ●