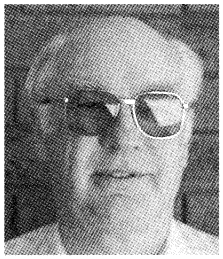
VINTAGE RADIO



By RODNEY CHAMPNESS, VK3UG

Wow – my first vintage radio!

A horrible looking old wooden-cased table model radio set has just been dropped (almost) on your front door step. The owner says "I know you are into collecting old radios and things and was sure that you would like this lovely old set that Aunt Martha had for yonks".

What he really meant was, "I hope you'll take this heap of junk off my hands as it will save me a trip to the rubbish dump, and you'll think I'm a great bloke".

I wonder how many collectors started in vintage radio in a similar way.

As a raw recruit to the ranks of vintage radio buffs, the next question is "What do I do with this horrible piece of junk? All I know about vintage radio could be written on the back of a postage stamp!"

The one thing that you don't have to do is try and go it alone. There are several thousand enthusiasts in Australia and New Zealand who are quite eager to welcome you into the fascinating activity of vintage radio.

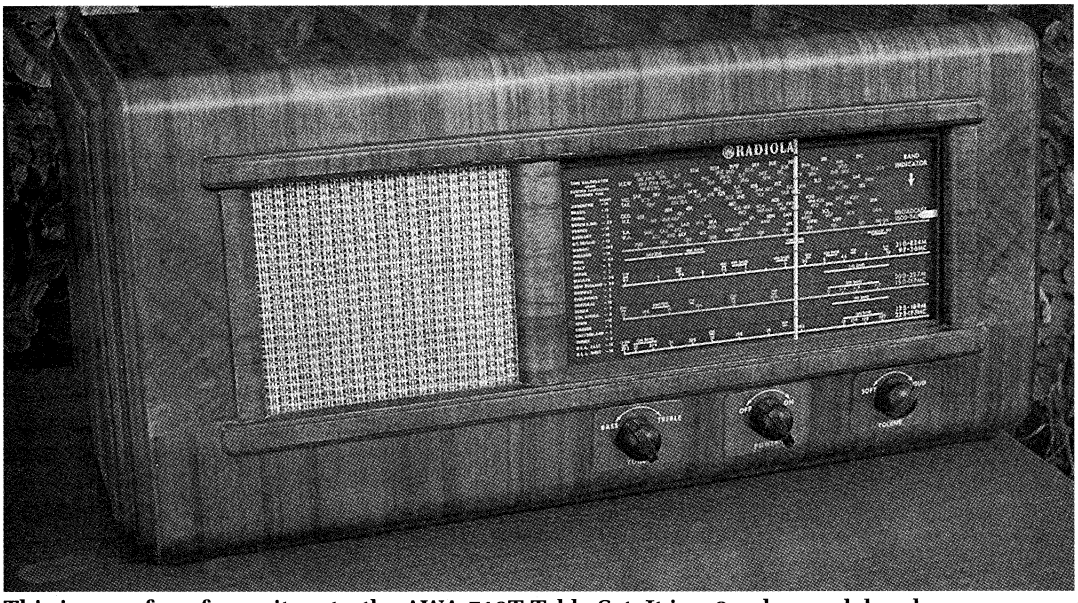
Where are the other enthusiasts?

On a local basis it is possible to advertise in local papers or on local community noticeboards concerning any vintage radio clubs that may be around or to find someone who may be able to help you restore your first vintage radio acquisition.

Enquiries at local electronics stores, the local antique dealers and second-hand dealers may also help you find like-minded restorers – probably ones with more experience than you possess, which is a decided bonus.

In New Zealand and Australia there are national vintage radio societies that cater for enthusiasts and in each case there is an enormous amount of information available through them. Their addresses are:

- Historical Radio Society of Australia Inc, PO Box 2283, Mt Waverley, Vic 3149. They have a quarterly publication entitled "Radio Waves" which contains lots of useful information.
- New Zealand Vintage Radio Society Inc, c/- G.W. Lindsey, 110 Sylvan Avenue, Northcote, Auckland 9, NZ



This is one of my favourite sets, the AWA 719T Table Set. It is a 6-valve model and covers seven bands. Sets as good as this one are worth every minute of a sometimes long and painful restoration!

Getting started

Having had this horrible old radio plonked on your door step, how do you physically go about making it into something that you could put on display?

The first point to consider is whether the set is actually worth restoration.

If the set is a model that is considered rare, valuable or highly sought after, it may be well worth restoring, even if it is in poor condition.

It may take quite some time to get parts or to make them, so don't rush the job. If it

is a common low-value set and not in good condition, it may not be worth restoring but it can form the start of a stockpile of useful parts for other sets. I have a whole shelf of sets that are not worth restoring which I use for spares.

If you have not been involved with restoration of vintage radios before, it would be a wise move to get an opinion on whether the set is worthwhile restoring.

As an example, there is no point in doing a lot of work on a chassis if the dial glass is broken and there is no hope of getting another, particularly if it is a multiband radio.

Fortunately there are some collectors reproducing dial glasses for a few sets.

Therefore, don't start cannibalising the set out if it is in otherwise good condition but keep it safely stored until such time as a dial glass can be obtained.

Swapping one set for another is another common activity amongst collectors, if the set you have is not one you really want.

Having decided that the set is worth keeping and restoring, there are several stages to the restoration project. An attractive cabinet is most desirable and most of the better timber mantel or console sets look really something once they have been cleaned, repaired (if need be) and polished.

If you are into fine woodwork you will be able to attend to this part with confidence. If not, a friend who is a woodworker can guide you, or hopefully a member of one of the clubs.

Initial cleaning

Even if you have little knowledge of cabinet work it is possible to clean the cabinets both inside and out. Plastic and Bakelite cabinets can be cleaned with soapy water.

It is necessary to remove all components such as dials, speakers and speaker cloth out of the cabinets, as they don't take kindly to dunking in water.

Make absolutely sure that any paper labels pasted inside the set don't get wet or they will disintegrate.

Wooden cabinets can be cleaned with a water-dampened cloth, or perhaps with a kerosene-dampened cloth to get some of the water insoluble gunk that accumulates off the cabinet. Do not use turps or other solvents as you will severely damage the finish. And make sure that you don't leave drops of water on the cabinet otherwise it will produce a white stain which is difficult if not impossible to remove.

The chassis of the radio can be cleaned by dusting it with a small paint brush, vacuuming it using a brush attachment and later, by using the blowing attachment on the vacuum cleaner.

Be particularly careful when cleaning around the tuning gang as grit and grime may lodge between the vanes and in the bearings. In fact, before you start cleaning the chassis, the first step should be to close the tuning gang vanes so that no physical damage occurs as you dust around the set.

Oh, and it's probably not a good idea to blow out the set with compressed air because you may actually force grit into places you don't want it, such as into the tuning gang, into the threads of coil slugs or perhaps even into the voice coil gap of the loudspeaker!

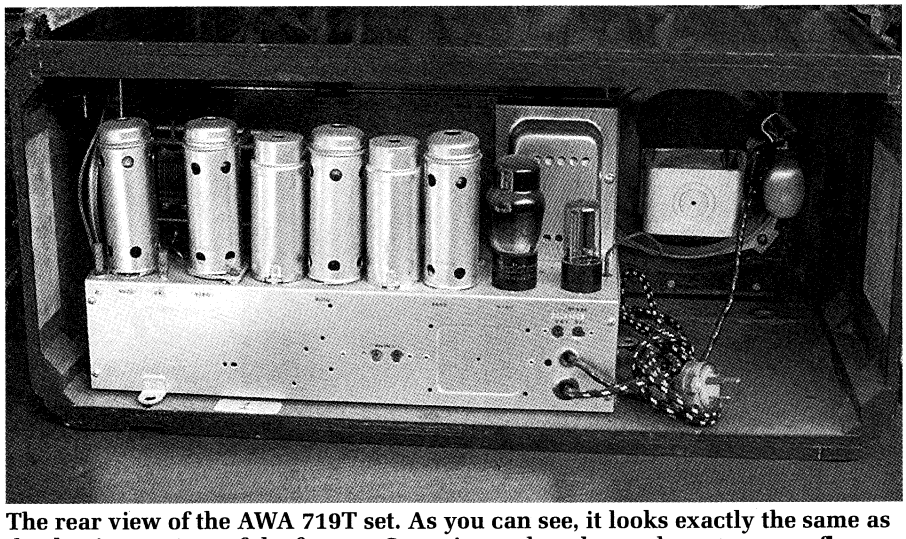
To clean the top of the metal chassis I use a Scotch-Brite scouring pad soaked in kerosene and by vigorously scrubbing it, I get most of the muck off. Later on, a rag soaked in kerosene will do a good job on the areas that are just mucky but not corroded.

The kerosene helps to protect a steel chassis so that it doesn't rust. It can be dried off after it is clean. Later on the chassis can be painted if need be.

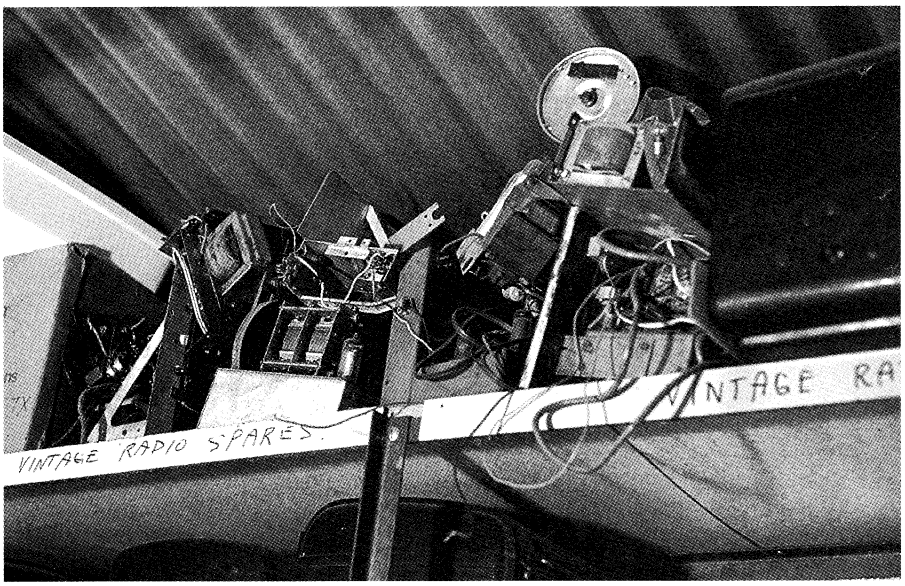
Don't use steel wool to clean up a radio chassis. Inevitably you will get strands of steel wool lodged in the circuit where it can cause short circuits.

Treating the underside

Having cleaned the top of the chassis, a look underneath will usually reveal that it is relatively clean, unless it has been stored upside down or mice have made a nest in it. Radios that mice have invaded often have



The rear view of the AWA 719T set. As you can see, it looks exactly the same as the day it came out of the factory. Sometimes, though, you have to camouflage new components into old cases when the original isn't available any more.

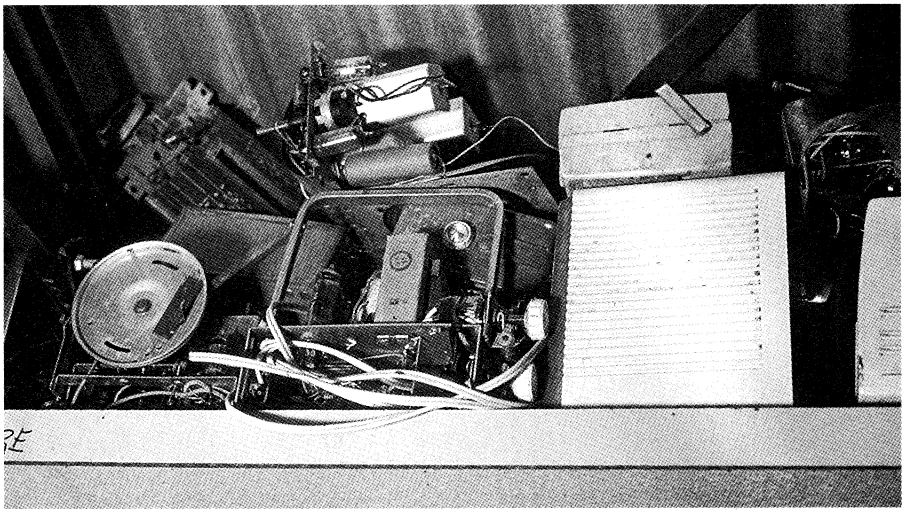


and the print will stay on.

But, I must repeat the caution about being careful about cleaning the dial glass; the print may disappear before your eyes.

I've been caught out on this myself and have a ruined dial glass. I could have cried and there was no replacement available.

(Left and below): I have several shelves just like these, filled with bits and pieces of old radios and in some cases complete radios that aren't worth repairing. But they are a very handy source of old, hard-to-get (and sometimes impossible-to-get) parts. Surplus sets and components can also be swapped or traded for that particular bit you *really* need!



considerable damage – and they smell. Having cleaned out as much muck as possible, spray the switch contacts, valves socket pins, etc, with one of the contact cleaning aerosol sprays. While not being ideal for this task, CRC2-26 and WD40 can do quite a reasonable job.

Another big caution concerns the tuning gang. DO NOT spray the tuning gang with these products. They might clean them initially but the residue tends to attract dust and it can be partially conductive and may even upset the tuning, due to a change in the dielectric constant of the gang.

If you really must clean the tuning gang vanes, gently brush some methylated spirits on the gang and blow the lot out with your vacuum cleaner, taking care that the airflow doesn't bend or damage the moving vanes.

All control shafts, pulleys and slides should be lightly oiled to get them operating smoothly, as over a period of years they often seize up due to corrosion and lack of lubrication.

Caution with the dial scale

The dial scale is a very important part of the set; without it or with one that's badly discoloured or otherwise damaged, the set won't be worth much. Note that the actual station markings don't mean a lot.

Sure it's nice to have all those interstate stations marked on the dial but remember that some of those stations no longer operate or they may have shifted in frequency with the adoption of 9kHz spacing about 17 years ago.

Even if the dial-scale is intact, it may need cleaning. The outside can be quite easily cleaned with a wet cloth but the reverse side which has the station call signs screen-printed on it can only be cleaned with great care.

In many cases it just isn't possible to wash the dirt off as the printing will come off too.

How do you know if the printing will be damaged by washing? Answer: by testing a small part of the print with water. Let the water stay on it for a few minutes to see if the print stays on or comes off.

If it comes off, you may be able to remove most of the dirt with a small dry paint brush. Again, don't brush too heavily or it may still damage the printing. In some cases it may not be possible to clean the printed side of dial glass at all. However, many are quite OK and can be washed in water

Having cleaned the chassis and cabinet, and particularly if they were in good order to start with, you now have quite a good static display restored set. Some people only go this far and don't concern themselves with actually making the set go.

However, a completely restored working set is an even more valuable asset. I like observing how well some of the vintage radios perform; often they are a lot better than many transistor radios.

Full restoration

The next step is where many new restorers make a big mistake. What they do is to plug the set into power, whether with batteries or mains, and turn the set on.

Usually the set you are restoring has been sitting in some damp, dirty location for many years. Mice may have had made a home in the set and

it was probably put out there in the first place because it had stopped working.

For all of these reasons it is most unwise to apply power to any set which has not been checked out thoroughly.

In many cases, the set can have very serious and sometimes dangerous faults and if power is applied you can cause serious damage which could be irreparable. Having come this far, that would be sad.

If you don't have any experience, don't even think about connecting the set to the mains power. Instead, enlist the aid of someone familiar with valve sets to get the set operating.

Alternatively, you might consider having the set professionally restored. Even if it costs quite a few dollars, in some cases it will be worthwhile.

Almost always I overhaul the electronics of a set before I am prepared to turn it on, whether it's mine or one that I am restoring for someone else.

Don't forget that this column has been going since June 1988 so there is a huge amount on this subject in the back issues of SILICON CHIP and I will be going over some of the key material in future issues.

Where to buy parts

Surprisingly, parts for later model valve radios are not all that hard to obtain but valves for some of the very early sets made in the 1920s may not be available at all.

Paper capacitors (condensers) are no longer available and most restorers will say thank goodness for that, as they are usually defective. They are usually replaced with polyester capacitors which are much smaller and look quite different.

Some restorers don't like to see new style components in sets and will even bore out the insides of the old paper capacitors and install the smaller polyester units inside.

With many old paper capacitors, particularly those encapsulated with pitch, this just won't be possible though, as they will disintegrate.

Quite often substitute components will have to be used if the set is to function properly, as having some components like interstage audio transformers and power transformers rewound is an expensive exercise. In many cases these substitutes can be disguised within the case of the original component, as in the example of the paper capacitors.

Any old radio that you come across can be a source of components either now or later on, so don't throw any old sets out until you've been able to remove all of the useful bits. These might be the valves, valve sockets, transformers, radio frequency and intermediate frequency coils/transformers, switches, cabinets, speakers, knobs, tagstrips, dial scales, tuning capacitors and so on.

The following sources will often prove valuable in your search for sets to add to your collection and for spares: garage sales, antique/second-hand dealers and advertisements in local papers.

The local rubbish tip can be a useful source too if you are allowed to scavenge.

What are you interested in restoring?

Having restored your first set, you may want to continue collecting and restoring radios of the same general type.

Or you may find that your particular interest is in another direction. Some collectors and restorers like to concentrate on a particular era or particular types of radio.

For example, some concentrate on collecting and building crystal sets, while others may be interested in high-performance multi-valve, multi-band receivers. Some are interested in the 1920s era while others are into transistor radios.

Initially, I grabbed anything that I could lay my hands on that didn't cost me an arm and a leg to obtain. As my collection grew I became more selective in what I obtained as I was starting to run out of room.

Collections vary from just one or two sets up to over 500 radios, which I saw in one collection recently. My collection is rather modest in comparison.

The photographs in this article are of one of my favourite restored receivers, plus a number of wrecked sets not worth restoring. They are waiting to be cannibalised to finish off the restoration of other sets.

Good luck with your venture into vintage radio, I'm sure you will enjoy the challenge and the end results. Our radio heritage is a valuable part of our social and technical history. **SC**