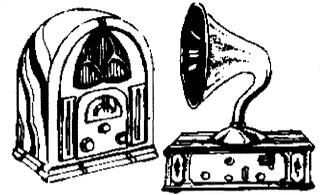


Vintage Radio

by ROGER JOHNSON



The Astor 'Mickey Mouse' and its descendants

With the exception of the AWA 'Radiolette', there is possibly no more recognisable Australian vintage radio than the Astor 'Mickey'. The postwar Mickeys, colloquially known as the 'loaf of bread', are very likely to be found in the most modest of collections, and also by those new to collecting vintage radios.

Receivers with the brand name 'Astor' were manufactured in South Melbourne by Radio Corporation, otherwise known as Radio Corporation of Australia. Some early advertisements even used the abbreviation 'RCA'. (I wonder why!)

In 1933 Astor adopted a design of the American Hazeltine Corporation, for a compact transformerless four-valve plus rectifier mantel radio originally intended for the American 60Hz 110V mains. It seems that the first pre-production model ran into problems, with heat dissipation from the large voltage dropping resistor required for Australian 210-240V AC mains.

The first production model, the 'OZ', incorporated a power transformer, and was released in December 1933. The distinctive cabinet, with its slightly raised and rounded corners, seemingly resembled Mickey Mouse's ears, and Astor quite deliberately marketed the set as the 'Mickey Mouse' as the

advertisement in *Wireless Weekly* for January 26th, 1934 clearly shows (Fig. 1). Note even the '(REGD.)' following the words 'Mickey Mouse' in the advertisement...

The association with Walt Disney's characters did not end there, however, for an 'Auditorium Console Attachment' was marketed as the 'Minnie Mouse'. A small switch on the back of the chassis, as shown in the circuit, enabled the connection of the large speaker enclosure. (Fig.2)

By the way, research suggests that the Mickey Mouses (mice?) were more extensively advertised in the Melbourne based radio magazine *Listener In*, rather than the Sydney-based *Wireless Weekly*.

legal battle ensued, with Walt Disney claiming that their trademarks had been improperly used, and that royalties should be payable. Radio Corporation lost, but not until 1940. Wartime restrictions put a halt to domestic radio production, and after the war, Astor continued the line but using the name 'Astor Mickey' (Fig.4).

Mr Ray Kelly, writing in *HRSA NEWS* number 39, stated *However, it seems that had Radio Corporation been willing to pay 50 pounds per year to Walt Disney, they would have been licensed to use the 'Mickey Mouse' tradename. They possibly spent more on legal fees, with appeals, than it would have cost to pay the royalty, a matter of principle.*

Legal problems

Not surprisingly, this use of popular cartoon character names landed Radio Corporation in bother with the Walt Disney Corporation. The inevitable

Pre-war models

The Model OZ had four valves and rectifier using the pre-octal 6.3 volt and 25 volt valves, 6A7, 6D6, 6B7, 43 and 2Z5Z, with about 130 volts HT. The

GUARANTEED SAME POWER AND RANGE AS FULL-SIZE SETS

YOU'RE TELLING ME!

ASTOR **Mickey Mouse** (REGD.)

FIVE VALVE SUPERHET for... **12** gms

FULLY COVERED UNDER HAZELTINE PATENTS

The smallest, lightest electric receiver on the market (dimensions only: 7 in. high x 10 1/2 in. long 5 1/2 in. wide; weight 10 1/2 lbs.). . . . Guarantees perfect Interstate reception.

... available also with **AUDITORIUM CONSOLE ATTACHMENT** *Minnie Mouse (illust.)*

Gives audiorium volume. The Mickey set plugs into this acoustically perfect console and operates as remote control.

Extra price for Minnie attachment £5/5/-

Fig.1: (Above) The optional 'Minnie Mouse' external speaker attachment, as shown in another part of the 1934 advertisement.

Fig.2: (Left) This advertisement for the original 'Mickey Mouse' receiver appeared in *Wireless Weekly* for January 26th, 1934. The unauthorised use of a Walt Disney trademark landed Astor in a legal trouble.

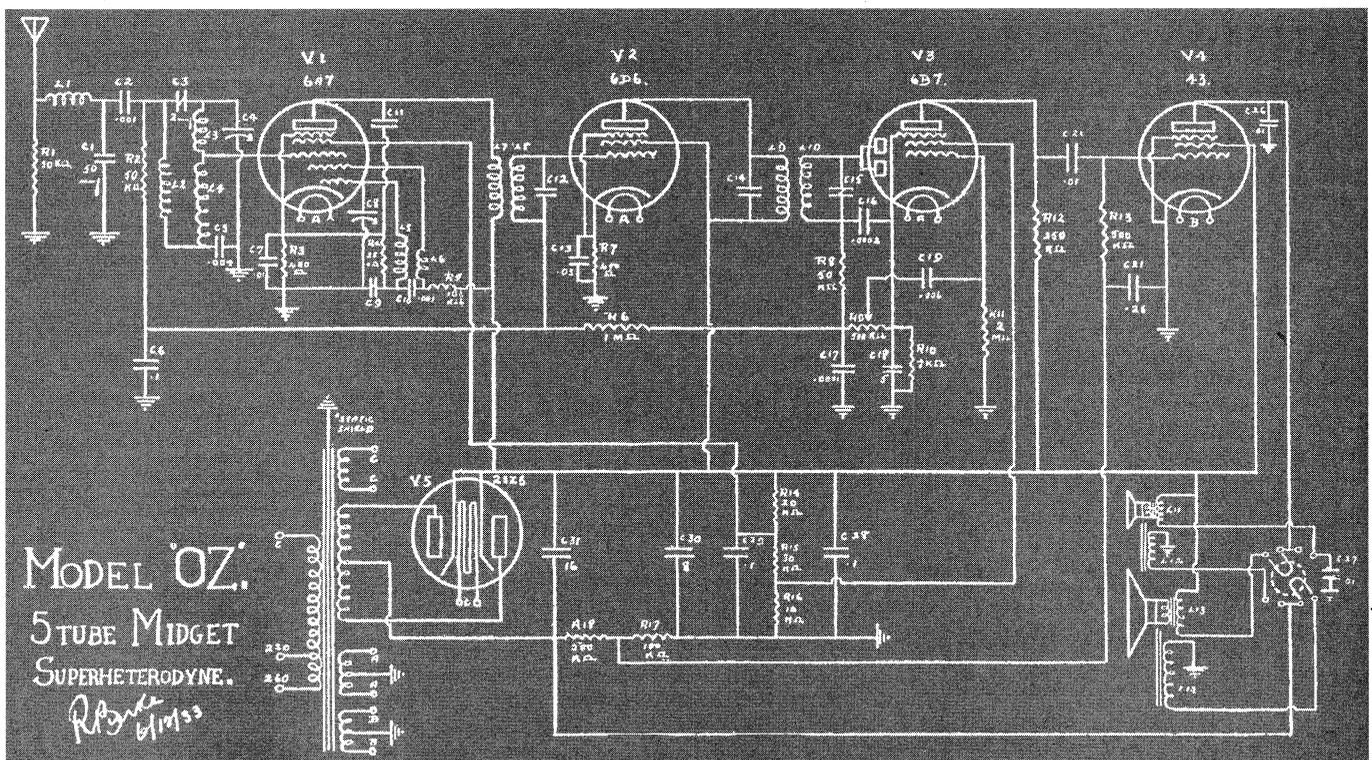


Fig.5: The circuit diagram for the original Australian Mickey Mouse, model OZ, released by Astor in December 1933. Note the use of a 25Z5 rectifier.

circuit is quite conventional apart for the aerial circuit.

Another early advertisement was for the car radio version of the 'Mickey Mouse'. The aerial input circuit of the OZ looks very much like an ignition filter, so perhaps the car radio version was adapted for domestic use rather than the other way around! The circuit is shown in Fig.5.

The model MZ is contained in a slightly larger cabinet, whilst in 1936 the model designation was model BE, which used a type 41 output valve and type 80 rectifier.

In 1936 a new cabinet was produced, in what was first thought to have been only brown bakelite. But while I was researching for this column, I discovered that it was also available in ivory (see Fig 3.). As this cabinet is probably the most prized amongst collectors, an ivory model would be very highly treasured indeed.

The new cabinets were used until 1939/40, and initially housed the model EC which used all-metal actal valves, but still a 25-volt output valve, type 25A6. The other valves were 6A8, 6K7, 6Q7 and a 5Z4 rectifier. The Model EC continued to 1939/40 without alteration.

In 1939 a model BP was released, using the 32L7-GT combination rectifier/output valve in a half-wave circuit, thereby reducing the valves to four —

the other three being glass octal types 6A8-G, 6U7-G and 6B6-G.

Not shown in the *Australian Official Radio Service Manual* (AORSM) Volume 3 for 1939 is the dual-wave version, model CN, using a 6J8-G for the converter. Also for 1939 was a battery version, the model EG which used the 1.4 volt octal valves type 1A7-GT, 1N5-GT, 1H5-GT and 1A5-GT.

After the war

The left hand cabinet pictured in Fig.4 is probably the most prolific of all the post-war Mickeys, and ran from 1946 to 1952/3. The right hand cabinet continued to about 1958/9, and is probably the

least desirable of all the Mickey Mouse or Astor Mickey models, even though there were technical innovations such as variable induction tuning rather than the familiar tuning capacitor.

The post-war Astor Mickeys were invariably a 3/4 valve reflex circuit incorporating bass boost at low volumes, AGC to the converter stage, and negative feedback via a 100pF capacitor from the plate to the grid of the output valve. The circuits were quite complex, and necessitate a degree of skill in following the actual circuit and the compact wiring.

Slight variations had different model numbers. For example, model JJ for 1946 used cathode bias on the output

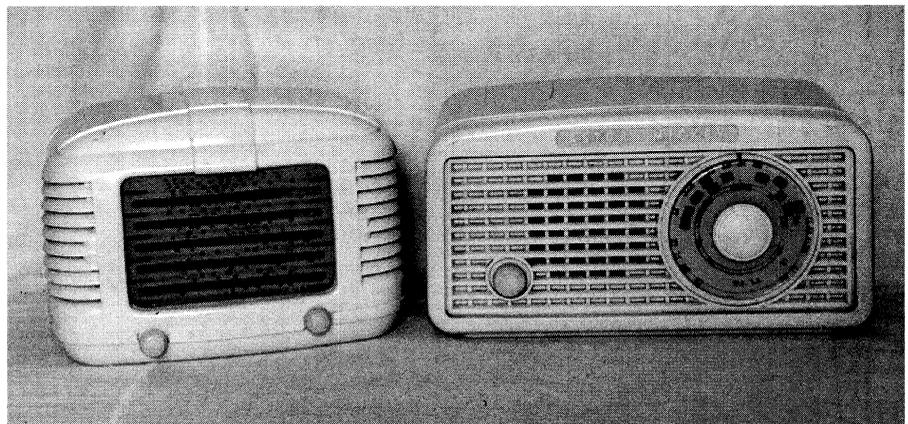


Fig.4: The postwar 'Astor Mickey' in two of the most familiar cabinet styles. That on the left is the one most popular with collectors.

valve, whereas the model KL for the same year used 'back bias'.

The 3/4 valve reflex circuit was not strictly adhered to. The model HPM for 1952 used a 6BE6 converter, a 6U7-G IF amplifier, a triode connected 6U7-G audio amp and a type 6BV7 det/AGC/output valve, plus the rectifier. The dial even had '5 valve' as part of the markings.

Details of the model DK is not published in the *AORSMs*, despite the fact that both its cabinet and dial carry the wording 'Astor Mickey'. This particular model uses a straight 3/4 valve circuit and a 900 ohm electromagnetic speaker, mounted facing the side rather than being directly behind the slotted dial. Were these perhaps the very first of the post-war production models, made of 'anything that happens to be lying around', as the saying goes?

It is interesting to note that the Eclipse factory, also in South Melbourne, produced a 'Peter Pan' model BKL — the circuit of which, upon initial examination, appears to be identical to the Astor model DK. Perhaps these chassis were made in the Eclipse factory, while Astor were preparing for the reflex models...

Cabinet variants

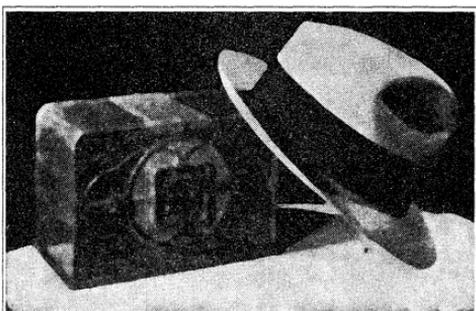
The first Mickey Mouse models from 1934-1936 were as previously described and illustrated in Fig.1. The speaker is behind a very delicate fretwork speaker grille, and there are a series of ventilation slots cut into the cabinet sides. Unfortunately, the timber between the slots and also the speaker fret is easily damaged, much to the disappointment of a would-be purchaser.

The 1937-1940 models were housed in the mostly brown, and rarely found ivory bakelite cabinets shown in Fig.3.

The postwar 'loaf of bread' models were commonly cream in colour. Second most common is brown, followed by black. Prized amongst collectors are the seldom seen pastel colours of green, blue and mustard, and very rare indeed is red. The cabinets are louvered from the sides to the dial, with the dial slotted to allow the egress of sound.

The last cabinet style is the least favoured amongst collectors. The colour seem to be a repeat of the predecessors, with again red being extremely rare. The only example of this red cabinet seen by the author had cream knobs.

Mention must be made of the 'Mickey Grand' of 1936/7, which was



Astor 1937 Mickey Mouse

No other radio has all these features.

- Smaller than a man's felt hat yet
- 5 Valve Superhet. with Automatic Volume control.
- Metal Valves for greater efficiency.
- Interstate Reception Guaranteed without aerial or earth.
- Ferrocart Coils, station logged dial.

Price Only £12/19/6 or 3/9 per week
(In Ivory finish 10/6 extra.)

Fig.3: The bakelite 'Mickey Mouse' receiver, as shown in an advertisement appearing on the back page of *The Listener In* for April 10th 1937.

a very stylistic timber cabinet and which resembled a console in miniature. Space does not permit detailed descriptions or illustrations. There were several versions over that period.

Help required

The post war Mickeys are not designated as such in the *AORSMs*. They are merely described as four-valve AC mantels, or as appropriate. The exception referred to previously is but one example of possibly many variations.

In order to complete a comprehensive list of post war Mickeys, it would be appreciated if readers would send to the author, care of this magazine, their Mickey model type, cabinet type and colour, and most importantly, the valve line-up. That way a comprehensive list can be compiled and the results published.

In closing, I'd like to acknowledge the assistance I received from the library of the Historical Radio Society of Australia, in preparing this month's column.

For those who would like to read further about the Astor Mickey receivers, I can also recommend John Stokes' book *More Golden Age of Radio*, published by Craigs, 1990.

References

- (1) *The Listener In*, various issues 1937.
- (2) *Wireless Weekly*, various issues 1934 - 1937.
- (3) *Historical Radio Society of Australia Newsletter*, No 39, January 1992.
- (4) *Australian Official Radio Service Manual*, Vols 1 to 14, 1937 to 1955. ♦