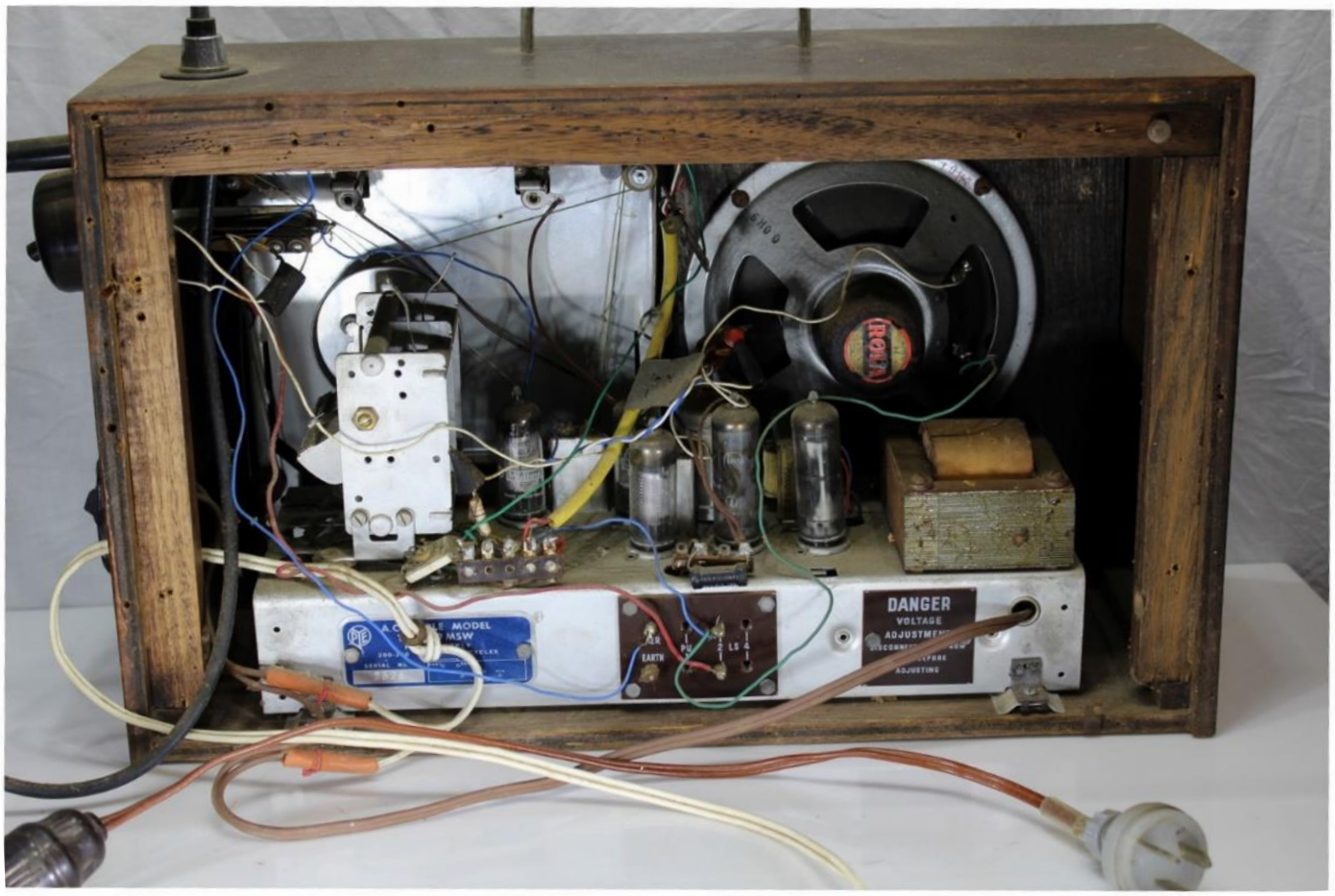
Pye 9MSW 1955

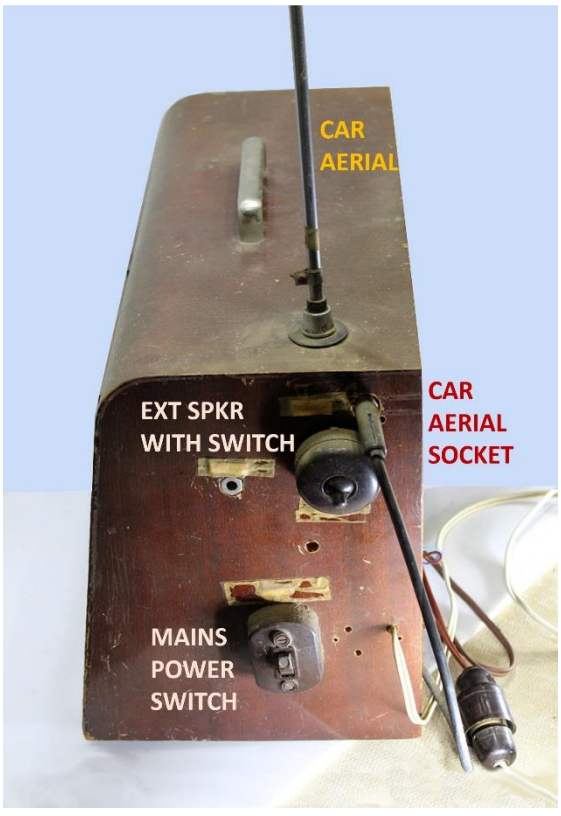
By Graham Parslow

I think of this particular radio as the cowboy special because someone had run rough-shod over every aspect of it. I acquired it at the end of "Bill's Garden Party" in 2019, a HRSA function in Melbourne that is a fun event featuring bargains for purchase. I was busy selling merchandise from the HRSA stock of donations so that when I made time to look around for a project, the quality items had found new homes. As consolation I purchased this remaindered Pye radio knowing that it was my sort of challenge. If I did not rise to the challenge I had not lost much.

From the front view three non-original fittings stood out. There was a convenient carry handle (kitchen drawer type), a car radio antenna and two wrong knobs. However, the greatest unexpected additions were at the side where a power ON-OFF switch was added as well as a socket for an extension speaker with a switch to connect it. Rather than snip the coax plug off the antenna cable a car radio socket was added to the side. Various holes with no obvious function added extra ventilation.

The back was a riot of wires crossing back and forth as each new inspiration for an addition or repair had come to the



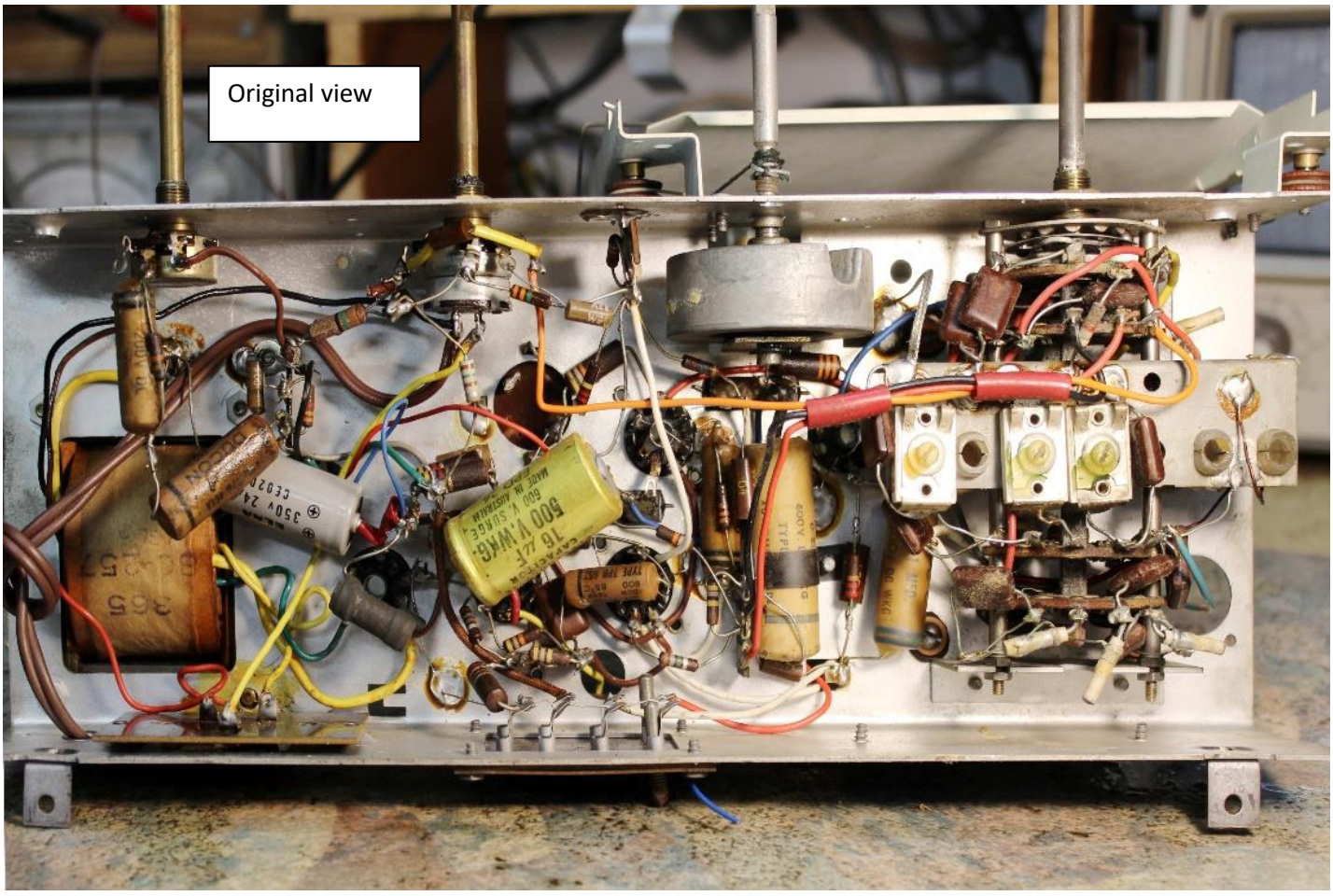


cowboy. I was delighted; this was a worthy challenge.

The first step was to determine if the radio worked. Every joint created by the cowboy looked bad; some soldered, some not. The three frayed wires to the tag-strip from the ferrite were resoldered to make sound connection, as were the speaker connections to eliminate the clumsy extension speaker wiring. Amazingly the radio worked first time, although the tuning capacitor drive slipped and left only 1278 kHz tuneable. The tone control did nothing.

The chassis removal was easy after the four knobs were removed.

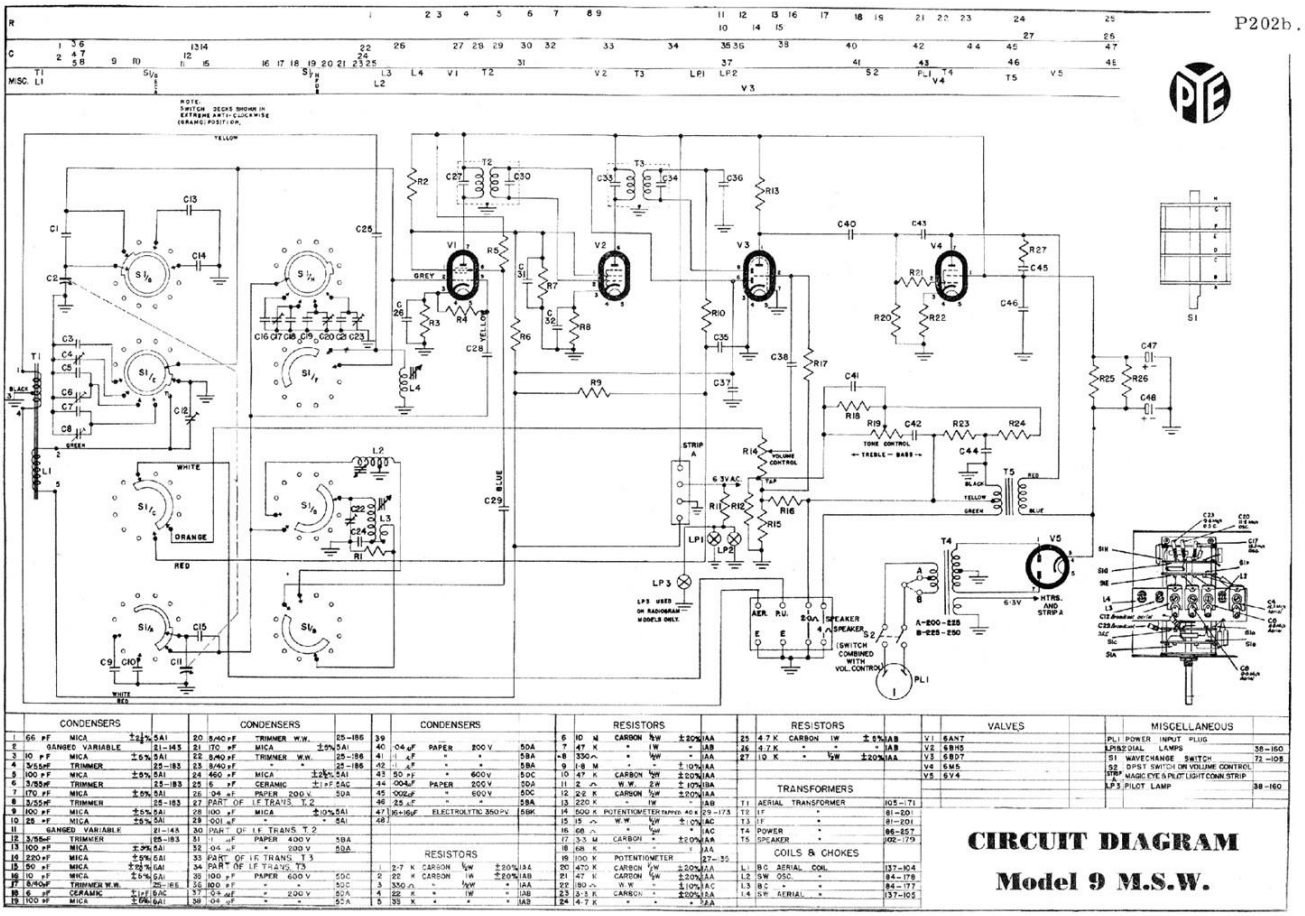
The photo of the empty rear shows how two metal mounting-strips lock the chassis by pins at the front and screws at the back.



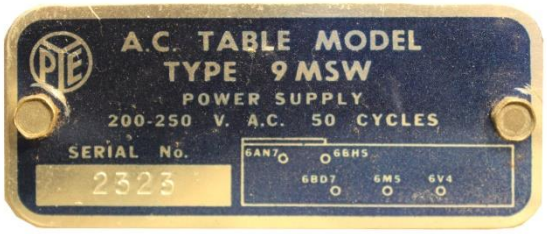
With the chassis out the first step was to replace the mains cable. The original mains connection was in three parts: two sections of twin core flex from the radio to a B22 light globe bayonet plug, then an adapter to three pins.

Restoring the tuning drive was easier than expected. The string was intact and had only slipped off a pulley. It also required some extra tension to the dial-drum spring to achieve reliable traction to the tuning spindle.

Several things looked suspicious under the chassis. As found, the tone control circuitry made no sense. I realised that the tone control pot was a new replacement – very



enterprising of the cowboy to replace it. However, the cowboy apparently omitted to take a detailed record of what connected to what. The result made no sense and it was sheer luck that those random connections did no more than render the tone control useless. The tone control in this radio is sophisticated for a single knob because it uses selective frequency cuts driven by negative feedback from the speaker output. It took some time to undo and redo the wiring to match the circuit diagram. The circuit and supplementary information for this Pye radio can be found in the HRSA compilation of circuits by Philip Leahy in book 5 (contact Stan Synders at the HRSA valve bank to purchase books in this series).



The first filter electrolytic C48 showed electrolyte leakage and was replaced. The HT dropping resistor was 400 Ohm when it should be 2 x 4.7K 1W in parallel (R25, R26). When the dropping resistance was corrected, HT1 of 280V reduced to HT2 of 240V.

The output transformer is a non-original A&R. The blue lead to the output transformer was connected to HT2 and this was changed to HT1 as per the circuit diagram. It was a fluke that the incorrect connection still resulted in a working radio.

The original transformer had a tapped secondary on the speaker transformer for

either 2 or 4 Ohms. The replacement A&R speaker transformer has only a single 3.5 Ohm secondary which was connected to the 2 Ohm socket (no connection to the 4 Ohm outlet).

Speaker and aerial connections were changed to hardwired rather than using the sockets on the rear panel. Audio coupling capacitor C40 was replaced as a routine precaution against failure, as were mica capacitors C36 and C43. At completion the working radio consumed 42W.

The cabinet was originally available in blonde, maple or mahogany. It seems that all cases had a plain veneer ply that was stained to the required finish. This radio was presumably finished in mahogany, but it cleaned up as a light veneer when sanded back to timber. Multiple holes in the case were filled with two-part epoxy filler. The case was then stained with Cabot's Dark Oak and finished with satin polyurethane to produce the result shown here. Some extra stain over the filled holes blended those spots into the grain pattern. New grille cloth, gold pin striping and two roughly-matching knobs finished the case. The knobs were black so gold metallic inserts were added to better match the correct knobs. I was so delighted with the restored radio that I bumped a 1946 STC radio from prime position as my listen-to study radio. The radio has a modest model-H Rola six inch speaker, yet produces excellent sound

when mounted in the relatively large cabinet of this radio.

Happiness was unfortunately transient as crackle set in that was too persistent to ignore. The 6V4 rectifier showed intermittent heater connection and was replaced with no effect on the crackle. Every mica capacitor around the wave switch was snipped on one lead and the crackle persisted. It was decided to look above the chassis for a source of crackle. The mixer was substituted with no effect. Removing the mixer killed all crackle so the source was around that 6AN7 valve. In turning the chassis back over C24 of 460pF that is part of the local oscillator came to attention. After replacing it the major crackle stopped, but it was just one of those fortuitous outcomes that was soon overtaken by the return of crackle. My previous encounters with crackle had identified either a mica capacitor, a dry joint or a valve as the source. This time it turned out to be the complex wave change switch of multiple sections that was generating crackle and the fix was a spray of CRC NF contact cleaner.

As a project this one was a real delight; in the end.