



Volume 24 No. 10

S.A. GROUP NEWSLETTER

April 2015 Special



Minerva Tropic Master

Historical Radio Society of Australia Inc. – S.A. Group

Web Site: www.hrsasa.asn.au

All correspondence should be addressed to the Secretary,
5 Philips Street, Vale Park, 5081

Committee

President:	Miles Essery – 8266 4595 miles.essery@gmail.com
Vice President:	Tony Bell – 8269 4095 antony.k.bell@gmail.com
Secretary:	Alan Taylor – 8344 6708 alantaylor47@bigpond.com
Treasurer:	John Crawford – 8344 4978 johncraw@internode.on.net
Editor:	Tony Bell – 8269 4095 antony.k.bell@gmail.com
Shop Keeper:	Murray George – 8276 2664 radiogram@internode.on.net
Web Master	Peter Hartung – 0401 692 057 info@adelaideinstitute.org
Valve Bank Manager	Vacant

Forthcoming Meetings

Sunday 26 April	1300 Auction at Miles, 10 Redford Street, Vale Park.
Sunday 31 May	1300 Possibly the component distribution, venue to be announced.
Sunday 28 June	Tentative return visit to the ETSA Museum
Sunday 26 July	AGM and Auction, venue to be announced.

Retirees' Luncheons

Luncheons are held for retirees at the Buckingham Hotel, corner of Walkerville Terrace and Northcote Terrace, Gilberton. Meeting time is 1200 for a 1230 luncheon. Forthcoming luncheons are;

Wednesday 13 May
Wednesday 8 July
Wednesday 9 September
Wednesday 11 November

Front Cover

The Minerva Tropic Master which will be for sale at the forthcoming auction.

Editorial

The reason for this 'Special' edition of the Group Newsletter is for a variety of reasons.

We have been asked to sell two small 'collections' and supply is expected to far exceed demand at Miles' auction. Consequently this Newsletter catalogues the items from the two 'collections' and members, both those in the country and in Adelaide unable to attend the auction, are encouraged to submit an offer to the Secretary for any items that you may be interested in **before** the 26th of April. There is a modest reserve price for the two Traeger transceivers.

We have had a request from Jim Easson for information to update his Astor Book One. You are encouraged to help, if you have the appropriate receivers.

John Crawford imported a very useful component tester from where else but China for a very modest cost. If there is sufficient interest, the Group will look at importing a 'bulk' lot.

You will notice that e-mail addresses have been added to the Group committee directory for your convenience,

Mt Gambier Gear

Hotpoint brown Bakelite mantle radio.

Brown Bakelite mantle 2 valve radio, home brew.

Traeger model 51MA h.f. a.m. transceiver, Serial No. 979 with microphone. 1.5 – 10 MHz with plug in coils, 6 volt in fair condition.

Traeger model SSB100 h.f. s.s.b. transceiver Serial No. 7098, with cables, probably 4wd net crystals and vertical antenna kit consisting of;

- 6 section approximately 27 ft. Telescopic whip,
- Round timber insulator/mounting with a whip receptacle, and
- Canvas carry bag.

Pye Wireless Set No. 62, has been modified. Military, circa 1955.

Minerva Tropic Master dual band receiver in a metal box with a front cover. This type of receiver was produced to sell to U.S. military personnel serving in the South Pacific area during World War II, however the War ended abruptly before sales were firmly established. The receiver is reputed to have been supplied to refugee camps in Europe after World War II. *AC/DC live chassis should be used with an isolation transformer, the case is isolated from the chassis*, 550 – 1600 kHz, 5.5 – 19 MHz. 1945-1947

AWA C6770 Teleradio receiver Serial No. 1537. The vibrator power supply has been removed, a ‘crude’ mains power supply added and the case repainted in gloss.

Philips Reception Set No. 4 Serial No. 205. A World War II battery/mains communications receiver in reasonable condition.

Lafayette model HA-520 fm communications receiver, 30-50 and 152-174 MHz. 1967

Express model 969 multimeter and valve tester in a black leatherette case. 1937. Quite good condition.

MFJ Enterprises Inc. model MFJ-557 Morse practice set, key is very rusty.

ADEC Inc. M-80/U Dynamic Microphone. This is a U.S. military hand held circa 1960s, in good condition.

73 “73 Surplus” book in reasonable condition.

And via Alan

CONSOLES

HMV incomplete Average

Home Brew Ugly

Bland Radio incomplete Average

Philips Good

Stromberg Radio Gram 1938 Good

Essanay Cabinet Chassis missing

Armstrong Average

Tasma Good

STC Good

Sharnberg Strauss Table Radio Gram Fair

Stromberg Good

Unknown Average

SPEAKERS

Sundry Damaged Mostly

CHASSIS

Kriesler Chassis Average (Broken dial Glass)

HMV Chassis Table Good

Mullard Chassis Mantle

Astor Information Wanted

Do any of our SA collectors have examples of Little Astor radios from between 1926 and 1932? Jim Easson has asked John Crawford if we could ask in our Newsletter.

He says, "Wondering if you could request some info in the SA Newsletter for the Little Astor. This would help with the Astor Book 1 revision.

I am attempting to get a good working circuit for the Shielded 3 and Little Astor for the revised Astor Book One. As far as I can tell there are about 4 circuits all different. What would help enormously would be knowledge of the Chassis numbers and the wiring loom labels tags. It would be useful to also have the current valve configurations and the wiring loom colour code associated with the tags.

Out of interest I think I now have nearly all of the Astor models identified with pictures of each model and variants. They amount to over 100 for the period 1926 to 1932. (The part we don't have official files for.) Some you may not have heard of like the Astor 4 of 1926 or the Astor Superhet of 1927.

Anyone with a Little Astor would probably have the info I need on the lid label for the battery connections. So far I have I think 4 models. Knowing which model will enable this set to be restored satisfactorily. Not knowing could cause a short circuit as some sets are positive earthed and some sets negative.

The first was an unshielded version that used a B+ Max of 102 and a Low B+ of **24V** using the series A425, A409, A409 (specified on the lid label). The detector Grid resistor and capacitor are in parallel, and the A-, B- and C+ go to chassis which is earthed. This is definitely the 1927 model; though the same configuration may have continued into 1928 as a shielded version ie valves are isolated from the coil.

There is another "shielded" series using a B+ max of 102 and a low B+ of **60V** configured differently, same valve series and grid leak parallel to grid cap. It appears that this series may have the A- and C+ going to the rheostat, and the A+ and B- going to the chassis. In this case the filament control is isolated from the chassis.

There seems to also be a shielded series using a B max of probably 102V low B+ ? GB -4.5, grid leak going to A+ terminal, and A-, B-, C+ going to earth..

And finally there is a model with 2 alternative positions for the flying lead beside the detector at the back instead of 1 position giving a total of 3 positions or 2 respectively (if we count the out position as a position). Harness leads appear to be the same as the last mentioned model.

Knowing the colour of the main coil assembly would also help as the later ones seem to be consistently black while the early ones seem to be unpainted.

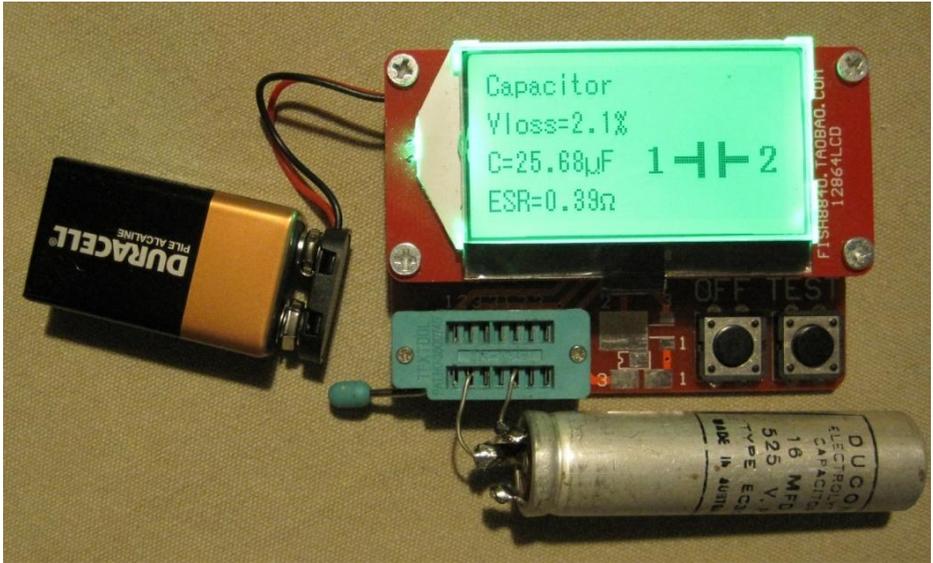
If members are more adventurous, the wiring for set (excluding the tuner coil) would be great. In particular I am trying to determine which sets put the grid leak going from the grid to positive terminal of the detector and which ones had it across the 250 pF grid capacitor.

Hoping you can help as I lumber through the process of getting the circuits for each. All very confusing for a former physicist! Sigh!Jim

If you might be able to help him email jeasson52@bigpond.com or contact John Crawford at johncraw@internode.on.net or phone 8344 4978.

And from John Crawford

All-in-1 Component Tester Transistor Diode Capacitance ESR Meter Inductance



I took this cheap tester along to our HRSA SA luncheon last week. Tony asked me to write about it for the newsletter.

I wanted an ESR tester, and with a quick web search I found the meter above for about \$US20, post free from China. It turns out to measure many things: see the specification below. As you can see in the photo, ESR works well. I am wondering if I really needed to replace the above capacitor in that old Astor radiogram.

Do a web search on the title above, and you will find a whole lot of variations on offer. This is where it gets complicated. My unit, which was made in July 2014, uses an old circuit that in off mode consumes 0.2 mA. There is a web page that describes a very simple modification to switch a 47 k resistor across the battery to a position after the electronic power switch. Later models have included this change, and now specify a shutdown current of 40 uA. I can either wire in an on/off switch or modify it. Probably I will be too busy, and just disconnect the battery.

When you search for that full title above (wise after the event), I see similar circuits with a range of prices. The cheapest are obviously earlier versions with earlier software (and the high shut down current) and may be offered with a special discount. Obviously one is inclined to think about how to improve a bare board unit like this, for example by putting it in a tidy box. Boxed versions are available, but at a higher cost (up to \$US44 or more?). Others have only the single test button. It seems odd that this piece of test equipment with only two buttons, really only needs one button for full functionality,

Press the test button, and it sequences through a sequence of tests as it tries to work out what is connected between its terminals.

It will measure capacitance, resistance, inductance, diodes, and transistors (including mosfets). The 7 pin dual in line zif (zero insertion force) socket is coded from the left with pin 1, 2, 3, 3, 1, 2, 3. The tester works out what the component under test is, and tells you which zif pin is connected to which socket pin. My capacitor above is connected between pin 1 and pin 2. For a transistor it works out which pin is connected to which socket pin in the similar manner to the Jaycar ATLAS Pro testers, which are a little more expensive. I don't think accuracy is its strongest attribute, although indicative answers are often more than sufficient to find out what needs replacement.

As it automatically identifies the components pin arrangement instructions are not really needed. It displays a bipolar transistor's current amplification factor and base-emitter threshold voltage. You can identify a Darlington transistor from the high base-emitter threshold voltage and high current gain. It will detect MOS transistors protection diode and measure the gate MOS FET threshold voltage and the gate capacitance.

The resistance range is from 0.1 ohms to 50 M ohms. Capacitance from pF to milli-Farads. A potentiometer can connect 3 terminals and show both resistances from the tap point to the end connections. Dual diodes show orientation and forward voltage.

A capacitor must be discharged before testing, otherwise it will damage the meter.

I purchased it from Ali Express at a cost of \$A 26.07 via credit card. A good purchase that has already proved to be quite useful.