

Q S X P E

ZS2PE

FREQUENCIES:

Bulletin	—	3640 Khz
s20 National Call	—	145,5
s22 2nd Simplex	—	145,55
r2 P.E. Rep'tr	—	145,05/65
r8 Ght. Rep'tr	—	145,20/80



*Port Elizabeth Branch of the
South African Radio League*

P.O.Box 462, Port Elizabeth. 6000.

17 APR 1978

FROM THE CHAIR.

Much water has flowed under the bridge since the last meeting and a few points perhaps deserve mention. The AGM has come and gone. The deliberations at Stellenbosch were enlightening and the final results a credit to the reasoning abilities of the delegates. Fortunately for the League and us, the controversial motion proposing the removal of HQ to division 6, was lost. A new contest committee is being formed by the Cape Town Branch and our subs remain unchanged. The outcome of all the motions can be discussed at the next meeting if any member so desires.

As mentioned on a recent bulletin, the D.F. sub committee has been disbanded and the organisation of hunts once again becomes the responsibility of the general committee. The committee was of the opinion that D.F. hunts had perhaps been overdone and many members had lost interest. It was proposed that these outings thus be held every second month until such time that a revival of interest warranted a hunt every month. Contrary to a remark apparently made on the air, the committee has no intention of allowing these outings to die out altogether or of forgetting to arrange them. It would appear that it has already been forgotten that it was the nucleus of the present committee who re-introduced DF hunts and very successfully so several years ago. It was also they who built twelve DF sets, several of which cannot be found, for the use of members. The other day I saw a card at Algoa Radio bearing the following. "Be sure brain is engaged before putting mouth into gear"

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Bert ZS2EA has offered to arrange the next DF hunt which will be held on Sunday 23 April. Further details will be made known at the meeting and on bulletin.

Dick ZS2RS.

FOR SALE.

Heathkit GR 88 VHF FM monitor. Coverage 152-174 Mhz. Brand new. R50. Dudley ZS2AW.
10 Cromwell St. Grahamstown.

.....

Van ZS2Y has a host of interesting goodies for sale. He will draw up a comprehensive list in time for the next issue of QSX.

Peter ZS2PD has also indicated that it is time for a clearance sale and he will also furnish details next month.

Neil ZS2AI is still in the white house (St. Josephs) and appears to be making good progress following a back operation. Perhaps a visit from the locals will help him along.

Congratulations to June ZS2JJ who has just come on phone.

Many out of town stations have been heard on Ladys' Slipper during the past weeks. Among them were ZS6HR ZS3JG ZS4CH ZS6BQA.

We may soon be hearing ZS2FW from Humansdorp on "2". Apparently he has just taken delivery of a Pye Westminster.

Long range VHF tests will be conducted, weather permitting, on Sunday 30 April. The site will be Tierhoek on the Cockscomb range. This will probably be the site of a proposed WRR repeater. Application will be made for a frequency allocation of 145,225/825 Mhz.

THE NEXT MEETING OF THE PORT ELIZABETH BRANCH TAKES PLACE ON FRIDAY 21 APRIL. 8.pm.

MINUTES OF THE MONTHLY GENERAL MEETING OF THE P.E. BRANCH
OF THE S.A.R.L. HELD ON FRIDAY 17 th MARCH 1978 at 20H00.

- PRESENT: A total of 28 members and visitors. The Chairman ZS2AJ, ZS2AE, ZS2PD who had not attended for some time.
- APOLOGIES: ZS2LO, ZS2KX, ZS2BK, ZS2TY and Roger Jenkins who is in hospital.
- MINUTES: These had been published in QSX. ZS2DD proposed and ZS2-064 seconded their adoption.
- ARISING: 1). ZS2EA enquired whether the letter of thanks to Dr. Koch had been sent as yet.
2). No more Branch-owned DF sets have been produced to date.
- FINANCE: The Treasurers report showed that R28,75 has been spent in the past month.
- CORRESP: 1). A letter from HQ concerning Hamnet was read.
2). Details received from the Hobbies Fair organisers were read out.
- GENERAL: 1). The Chairman raised the subject of the forthcoming Hobbies Fair. He pointed out that the Branch has taken part in the last two Fairs, but that a tremendous amount of effort had to be spent in preparing and setting up the stand, and the matter had consequently been discussed at great length at the last committee meeting. He said that it now depended entirely on the attitude of members whether we attend this Fair or not. The Chairman said that he realised that the times of operation were difficult, but he would like an indication of how many people were prepared to assist. A total of six persons displayed any interest whatsoever. Ken ZS2-064 suggested that we ask for assistance on our bulletins. The Chairman called for a vote on the matter of our participation. A show of hands revealed that no one was against participation. The Committee would discuss the matter again in the light of offers to help which had been made tonight.
2). ZS2U reminded members of the DF hunt to be held on Sunday.
3). ZS2CY offered good wishes to the Chairman for his forthcoming trip to Stellenbosch for the AGM.

There being no further business, the meeting closed at 20H30.

sgd.
R.W.Schonborn ZS2RS
CHAIRMAN.

sgd.
B.A.Weller ZS2AB.
SECRETARY.



READ ALL ABOUT IT

SUNDAY 23/4/78
2.30 p.m.

D. F. HUNT

(That's not the guy's name
- it a direction finding
hunt - unless you go the
wrong way!)

NEW RULES: (All two of 'em)

1. No sense-antennas (as always).
2. No sniffers.

That's all - but there's a lot of other no's such as:-

No prizes. No penalties. No scores. No scrambling
down rabbit-holes, but there's no need to wear your best
suit. Just a no-nonsense D.F.Hunt for the fun of it.

WHERE TO START OFF: Corner of William Moffett Freeway and Bayley Street,
Charlo.

WHEN: Half-past-two (2.30 pm)
on Sunday 23rd April, 1978.

WHEN THE FOX WILL TRANSMIT:

	For a very generous minute at 2.30.
Full power:	Then for a generous minute every five minutes until and including 3.10 pm.
	For a v.g. minute at 3.15
Low power:	Again at 3.20 Then continuous from 3.25 to 3.30

That's all - and if you don't find him by half-past-three, who's worried
anyway - you can easily find your way to the Grey Dawn Bird Park Tea-
room for a very welcome cuppa and a chin-wag. (Got to call it "chin-wag"
instead of "rag-chew" as their crumpets and scones are usually delicious).

Many thanks to om Lionel ZS2DD for agreeing to be the Fox, and to om Al
ZS2U for the loan of his transmitter.

We'll postpone it for one week if it should happen to rain.

Last, but not least, many thanks to the now dissolved sub-committee for all
the D.F.Hunts they organised in the past. (This one is arranged
spontaneously by D.F.Hunters for all who wish to join in - and the more
the merrier).

P.S. Some D.F. Sets will be available at the starting point. But if
you wish to borrow one of these, please bring four pen-light cells
with you.

H.F. ANTENNA TUNER

This antenna tuner is designed to match virtually any transmitter to almost any antenna. This includes dipoles, inverted vees, random wires, verticals, mobile whips, beams and others fed by coax lines or a single wire from 160 through 10 meters.

CONSTRUCTION

The circuit diagram is shown in fig. 1 and you will find that the whole assembly will fit very comfortably in a box 250 x 90 x 200 mm. The size of the box is determined by the size of the capacitors. It is suggested that you use 2 KV capacitors if you wish to run the legal limit.

It is important to note that the two capacitors are in series and must not come into contact with the box which is earthed. The suggested front panel layout is shown in fig. 2. The air around coil dimensions are illustrated in fig. 3. I used a perspex former with slotted edges to wind the coil around. The coil was then epoxied on to the perspex edges.

The internal layout is not critical and you should not experience any difficulty with the construction.

INSTALLATION

- 1) Install the tuner between your antenna and SWR/watt meter, as shown in fig. 4. Connect a coax line from the SO-239 coax connector on the rear of the tuner marked "transmitter" to an SWR meter connected to the transmitter.
- 2) Coax fed antennas must be connected to the SO-239 coax connector marked "coax" on the tuner.
- 3) Random wire antennas must be connected to the binding post marked "wire" at the rear of the box. Random wires should be as long, high and clear of surrounding objects as possible. Do not ground the random wire.

NOTE: Make sure that the tuner box is connected to a good earth and the connection lead should be kept as short as possible for best results.

USING OF THE TUNER

The "Inductance" switch on the tuner presents a minimum inductance at position "A". Minimum inductance is used at the higher frequencies.

After properly installing the tuner, tune your transmitter for minimum SWR and maximum output power as follows:

2.

- 1) Set your "transmitter" and "antenna" controls so that the capacitors are half opened.
- 2) Rotate the "inductance" control for maximum noise in the receive mode of your receiver.
- 3) Apply enough transmitter power to give an adequate indication on your SWR meter. Do not apply full power while tuning for minimum SWR.
- 4) While transmitting, turn the "inductance" control for minimum SWR.
- 5) Adjust the "transmitter" control for a drop in SWR.
- 6) Adjust "antenna" control until minimum SWR achieved.
- 7) If minimum SWR is not achieved, increase or decrease the "inductance" control one position and repeat steps 5 and 6.

CAUTION: If arcing between the capacitor plates occurs, increase or decrease the "inductance" control one position then repeat steps 5 and 6.

- 8) After minimum SWR is obtained, check output power with a power meter. Tune the antenna tuner for maximum power output.
- 9) After minimum SWR and maximum power output is obtained, full power may be applied to the tuner. On 160 meters power applied to the tuner may have to be reduced if excessive heating or arcing occurs.

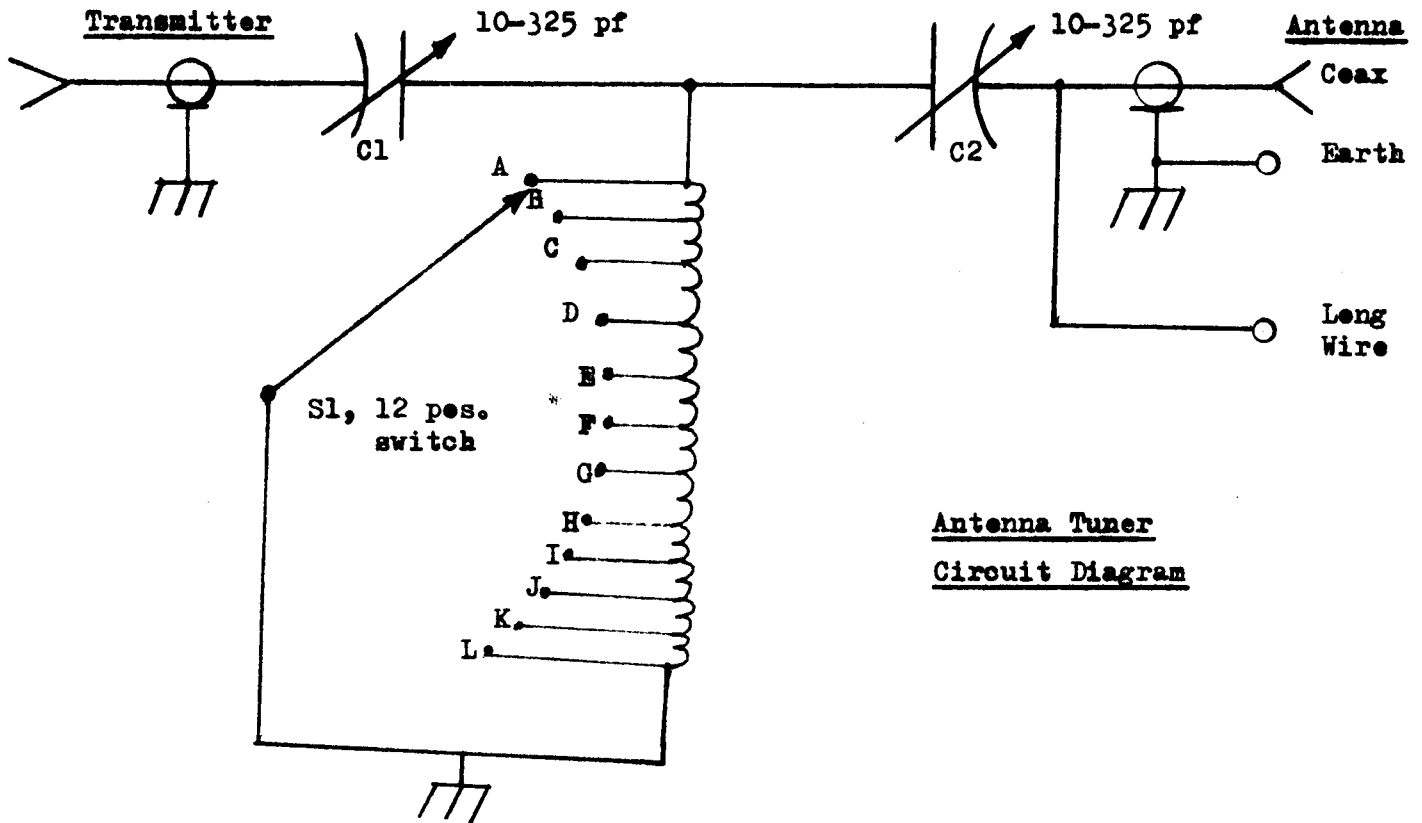
NOTE: For receiving perform steps 1 and 2 and adjust "transmitter" and "antenna" controls for maximum noise on signal strength.

Good luck with this project and I am sure that you will find it very worthwhile. It is absolutely essential on solid state transmitters as I have discovered.

73

AIAN ZS2AV/ZSLAC

Figure 1



Antenna Tuner
Circuit Diagram

Figure 2

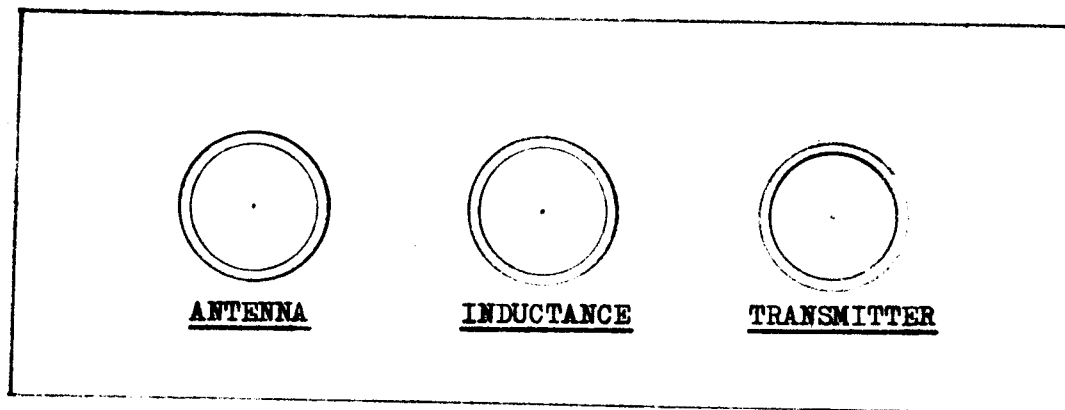


Figure 3

Wire: Tinned Copper 16 SWG (1,5 mm)
Turns= 14½
⊕ Ground Lower Coil
Equal Spacing= 3,1 mm

