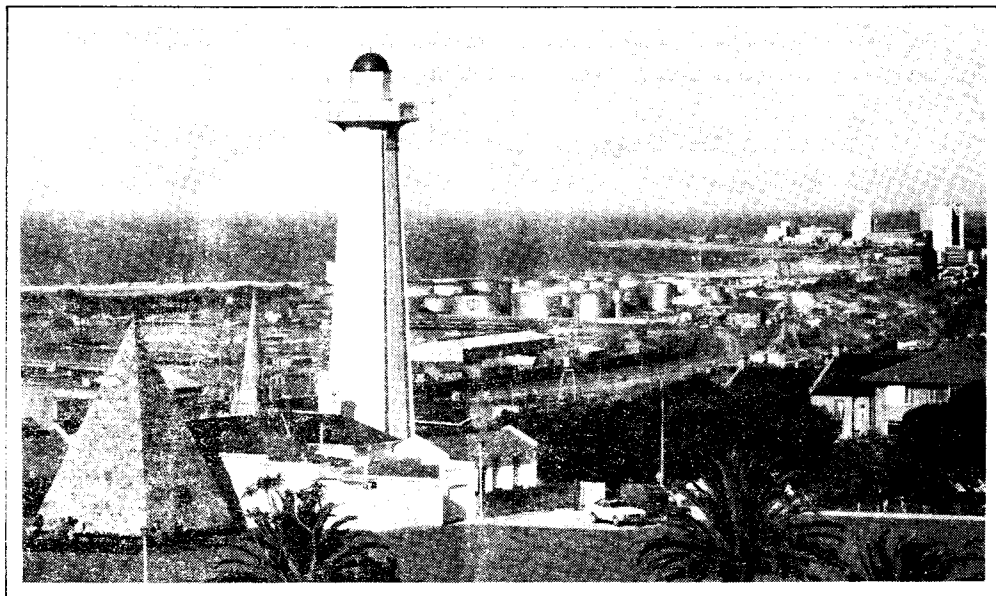
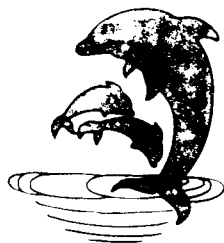




Q S X P E



**THIS NEWSLETTER IS PUBLISHED BY THE
PORT ELIZABETH BRANCH OF THE
SOUTH AFRICAN RADIO LEAGUE**

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NOTICE OF MEETING

The June monthly general meeting of the Branch will be held on Friday, 21st June, 1991, at St. Martin's Church, Kabega Park, starting at 20:15 (8.15pm).

After the business and refreshments, members and visitors will have an opportunity to examine the survival course run by NASA for their astronauts. Please bring a writing utensil.

Incidentally, please note that the date of next month's general meeting (the July meeting) will be brought forward to the second Friday, i.e. 12 July, because of the VW Algoa Rally taking place on our normal meeting date. Make a note now already wherever you normally keep your dates.

RAE Technical Classes Resumed

Technical classes for those wishing to write the Amateur Radio examinations in November have just resumed, with separate venues and evenings for the Class A (2R/2S) and Class B (2U or Novice) candidates.

A group of 12 students at Westering High School form the nucleus of the 2U class, which are being conducted from 18:00 to 20:00 (6 to 8pm) on Tuesdays at the School. However, you do not need to be a scholar or associated with the School in any way to join these classes. All interested in studying for the 2U licence are welcome to participate.

If the Westering High School group's plans to establish a WHS radio club come to fruition, their Headmaster has said, he will allocate a room in which they can set up their operations. This could grow into something big - would it not be great if other schools established similar clubs and facilities? How about your offspring spreading the idea at their schools?

As before, the 2R/2S classes, with eight hopefuls at the start, are being held at the Spoonet technical lecture room in North End from 19:30 to 21:30 (7.30 to 9.30pm) on Monday evenings.

Contact Viv (30-4433 at home) if you'd like to join either - or both - of the groups, but do it now!

Giggle with St Giles

Solomon and David lived very naughty lives.
They flirted quite outrageously with other peoples' wives.
But when they got to older age, conscience gave them qualms --
So Solomon wrote the Proverbs and David wrote the Psalms.

(With acknowledgements to the magazine of St Giles' Church)

**MINUTES OF THE GENERAL MEETING OF THE PORT
ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO
LEAGUE HELD AT THE ST MARTINS CHURCH, PORT
ELIZABETH ON FRIDAY, 17 MAY, 1991**

PRESENT: 37 members and visitors

APOLOGIES: Trevor ZS2AE and as per register.

The Chairman welcomed all present, especially Nial Cameron (our guest speaker), Sean ZS2SNA (on pass from the Army), Peter and Elsa, Ben Friskin (new member), Jimmy Hoole, Roy Newman, Peggy (XYL of ZS2UM), Vaun (XYL of ZS2CA), Ken ZS6MG (new settler in PE), John ZS200 and son and Andre ZS2BK.

MINUTES: The minutes of the April meeting had been circulated in QSOX-PE and were taken as read: proposed by Colin ZS2CTR and seconded by Viv ZS2VM.

ARISING: Marge reported that the UW Algoa Rally would be held on 19 and 20 July this year and would be run in the Kirkwood - Alicedale - Paterson area. Bud ZS2CA undertook to prepare a list of those who are prepared to assist. At this stage it appeared that about 20 stations would be needed. Bud and one or two helpers would attend a meeting of the Rally organisers on Sunday 19 May and would insist that they involve the Ham organisers in their preparations from the outset. Our communication organisers have had a good deal of experience with rallies and could be of great help to them.

CORRESPONDENCE: Various Branch newsletters had been received and were available for members to peruse.

FINANCE: Colin reported a balance of R3949,54.

GENERAL: (a) Marge thanked Raphie for the outstanding get-together held at his home the previous evening to welcome our President, Reno, and also for providing accommodation for him for the night. The evening and refreshments were enjoyed by about 26 members. The Chairman also thanked Colin ZS2AO for organising tickets for Lionel to entertain Reno to the Oceanarium and Snake Park, and Viv for the luncheon that he laid on for Reno and Marge.

Minutes of Meeting (cont'd)

(b) Marge said that an impressive special event display arranged to celebrate Morse and Marconi Day and thanked those who had provided equipment and gave up their time to help at the show. Although attendance was not up to expectations, the equipment on display generated a good deal of interest.

(c) Colin ZS2CTR said he had applied to the Bandplanner for a frequency for the UHF repeater and is awaiting a reply. Wolf ZS2WG had procured the crystals for the bulletin board and the meeting decided that he should be reimbursed therefor.

(d) Marge thanked Bill ZS2BY for his donation of a number of Radom and QST magazines, some dating back to the early days of radio and, therefore, of great historical value.

(e) The RAE examinations held the previous evening were discussed at length. Colin ZS2CTR felt that some questions for the 2U candidates were outside the syllabus and he intended to write to the Authorities about this. Joan thought some questions were very cryptic and the paper would have been easier if they were worded more simply. Discussion ensued on the way questions should be put. Members with experience in setting examinations explained the need to formulate questions in such a way as to ensure that candidates understand the subject and have not merely learned parrot-fashion. Nevertheless, in view of the feeling that some questions were outside the syllabus and/or ambiguous, the meeting supported Colin's intention to take up the matter.

During the tea break the monthly draw was conducted and AI ZS2U was the lucky winner.

A talk and slide show on Antarctica was then presented by Nial Cameron, who had spent 14 months on the continent recently. He also displayed some of the warm clothing that is worn there. The colourful and rare scenes and "inside views" on the way of life there held the audience spell-bound. Marge thanked Nial for a most interesting talk.

CHAIRMAN

SECRETARY

Rebirth of the
PE PBBS SYSTEM *by LIONEL ZS2DD*

At the June 1988 general meeting a talk on the proposed Packet Radio Link-up was given by Andre ZS2BK, who was the local representative of the Packet Working Group. After much discussion on the pros and cons of the PE Branch operating a PBBS, members voted in favour of the purchase of a Kantronics KAM unit for use by Eastern Cape amateurs.

Andre arranged the purchase of the KAM unit and, a month later, the PBBS was on the air from his QTH, using the call sign ZS2PE. In the mean time, HF and VHF transceivers were donated to the Branch for this project. In January 1990 all the equipment was available and brought to my QTH (ZS2DD) for final interfacing and setting-up. After several months of on-the-air testing the BBS was working fine, the local packet operators being able to connect and cross-connect to the BBS.

In April 1991, the Branch applied for an unattended packet radio station licence and the call sign ZUBKCD was allocated. Early in May the BBS was moved to the Lady's Slipper repeater site, where it appears to be working well. Packet operators can access the BBS from either HF or VHF as both ports on the KAM are in use. One can do a cross-connect, that is, working into the BBS on VHF and connecting to a station on HF. Similarly, one can go in on HF and connect to a station on VHF. Local stations can leave messages on the mailbox or digipeat through to a more distant station. Anyone wanting more information on the operation of the BBS will find an excellent article by Andre ZS2BK in the August 1988 issue of QSOX-PE. (Perhaps the Editor could reprint this article at a later stage.) (See footnote - Ed.)

Many of our members helped to put this system on the air. It was a real team effort: Andre ZS2BK was the prime mover behind the project, providing valuable advice and suggestions to keep it on track. Dick ZS2RS provided the HF SSB transceiver, Brian ZS2AB a VHF transceiver, Mike ZR2LM a VHF transceiver as well as advice on its modification for interfacing into the system, Wolf ZS2WG donated the crystals for the 2 metre transceiver as well as antenna mounting hardware, Al ZS2U provided the 20 metre inverted V antenna. Trevor ZS2AE supplied antenna mounting hardware and also

helped to install the equipment at the repeater site. On behalf of the PE Branch I thank you all, as well as those who used the BBS while on test and passed useful comments on its operation.

Here are the technical details of the station:-

Site address: Lady's Slipper Mountain
Longitude : 25 deg 15 min East
Latitude : 33 deg 54 min South
Height : 530 metres above sea level
HF Station : Motorola SA - 7 base station. 100 watts
Frequency : 14,109 MHz
Antenna : Inverted - U dipole
VHF Station : Motorola MOCOM 70 mobile. 5 watts
Frequency : 144,675 MHz
Antenna : Folded dipole vertically mounted
TNC : Kantronics All Mode. KAM. Version 2.84 software.

This PBBS has been a Port Elizabeth Branch project and is available for use by all radio amateurs. PE Branch members -- this system is yours. Please make use of it. Have fun. See you on packet.

73,

Lionel, ZS2DD

NOTE BY EDITOR - Andre's article occupies four QSX pages. If there is sufficient demand, I will gladly reprint it. Otherwise, photostat copies can be made available to interested parties. What say somebody please? KKKK

VW ALGOA RALLY NEEDS OUR COMMS

We have been asked to help once again with communications for the VW Algoa Rally, which will take place on the afternoon of Friday 19 July and the next day, Saturday 20th.

About 29 operators will be required. The event, which we are told is to be more important than its predecessors, will take competitors through the Paterson, Alicedale and Alexandria areas. VHF facilities will probably suffice but, whether pre-rally tests show this to be the case or not, HF backup will be desirable.

Even if you can help on only one of the two days and/or do not have suitable VHF or HF equipment, Bud ZS2CA will be happy to hear from you. His telephone number is 34-2770 (home). Suitable equipment can possibly be obtained on loan for you for the occasion.

ELECTRONIC KEYER

Tony Bailey
G3WPO

FOR THOSE who have difficulty in sending recognisable morse code with a straight key, there is no doubt that the evolution of the electronic keyer has provided many users with the opportunity to send good code - even the best keyers can send rubbish in the wrong hands! Purists may argue that the electronic key has taken away the artistic individuality of the operators fist. Another argument is "Who needs CW anyway?" but that's a

contentious issue - the author actually likes the mode!

Many different designs have been published over the years; ranging from simple one transistor circuits (providing the dots only), to the latest lambdaic keyers with multiple memories, anti-echo, last character stores and other features. All a bit confusing for the newcomer who has just passed the morse test.

The author set out to produce a

straightforward unit, suitable for the beginner or someone just graduating to an electronic keyer, with the essential features and a simple paddle design. The latter has been integrated into the PCB design and does not require any advanced workshop facilities (lathes, milling machines etc). The design allows paddle-only or keyer-only construction.

Four CMOS integrated circuits are used, consuming only 400uA (quiescent) from a

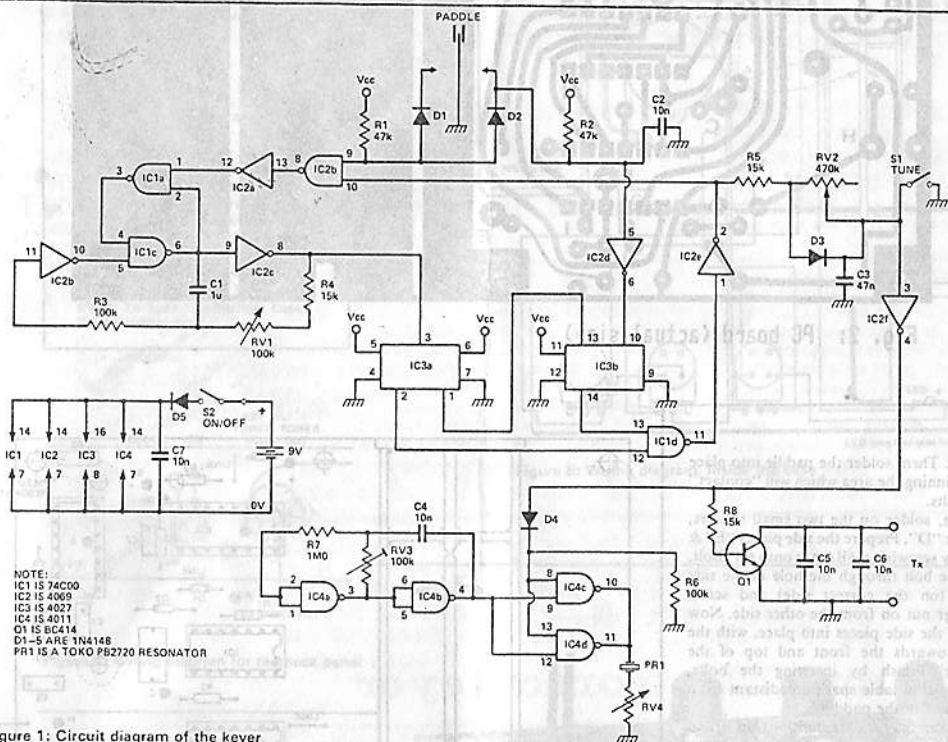


Figure 1: Circuit diagram of the keyer

9V battery; although any voltage between 3 and 15V may be used. Control over the speed, from 6 to 50 WPM, together with weighting, a switched 'tune' facility (for the transmitter) and a level control for the audio monitor are all provided.

Construction

The keyer circuitry, together with the paddle, is built on a single sided PCB (Fig. 2). If you want to build either separately, then the PCB can be divided where shown.

The paddle is constructed from fibreglass laminate which lends itself to easy cutting and soldering. Contact is made via 6BA bolts, allowing an adjustable gap with the lever (see Fig. 5). Since a high impedance circuit is being keyed, there is no need for precious metal contacts.

In order to avoid the need for a double sided main PCB, the paddle is built on the

track side. The board is mounted 'upside down' in the cabinet, with wired connections made direct to pads on the track side. The user-end of the paddle is made from two pieces of Perspex, or similar material, filed to a suitable shape and mounted with adhesive.

Assemble the components - use IC sockets - leaving the resonator until the paddle is finished. Check that all the semiconductors are inserted correctly.

When the assembly is finished, check for solder bridges - especially between the IC pads - then temporarily connect the controls, battery, and the resonator (directly from its pad to earth, for the present). Using a piece of wire, with one end connected to earth, check that the keyer operates correctly by touching the dot and dash pads on the main PCB. Also check the speed and weighting controls.

Current consumption should be around

400uA. in the quiescent state, and 2mA when keying. Any abnormal departures from these figures should be investigated (look for short circuits first). If there is no output, check the circuit with a scope or multimeter - there should be a very low continuous output from the resonator, in the quiescent state.

The Paddle

The paddle can now be constructed. Prepare the pieces carefully. If you can, plate these to prevent corrosion, or use a PCB lacquer. Remember to make sure that the individual pieces of laminate are cut squarely.

Solder the back plate "A" to the main PCB, as indicated in Fig. 3 (the drawing is shown with the paddle on the component side for clarity, but it is *actually* assembled on the track side), ensuring that it is at right

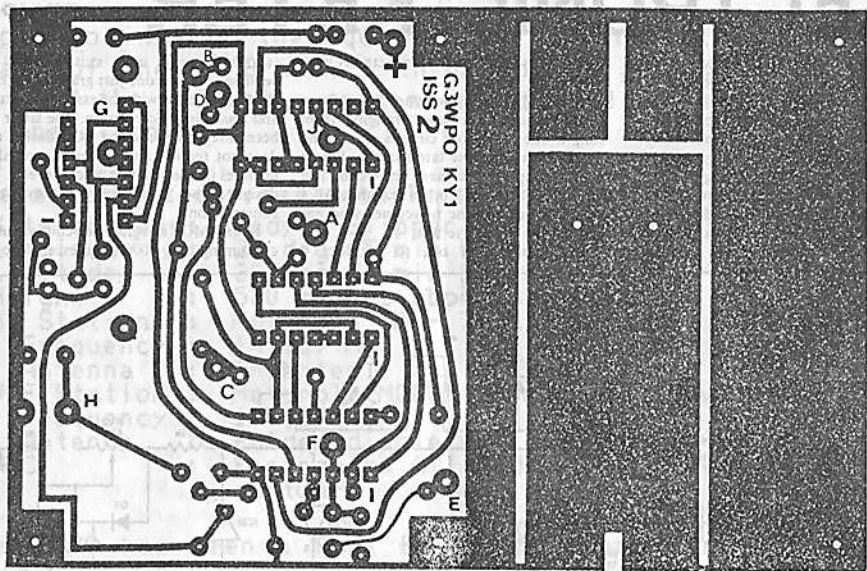


Fig. 2: PC board (actual size)

angles. Then, solder the paddle into place after tinning the area which will "contact" the bolts.

Next, solder on the two small spacers, "C" & "D". Prepare the side pieces "E" & "F" by screwing a 6BA nut onto a 1" Bolt. Put the bolt through the hole in the side piece (on the correct side) and screw another nut on from the other side. Now solder the side pieces into place, with the nuts towards the front and top of the paddle. Finish by inserting the bolts, leaving a suitable space equidistant from each face of the paddle.

Prepare the paddle extension (Fig. 6) and fix into place using cyanoacrylate or epoxy resin adhesive. Make sure that the lower edge of the extensions will clear the aluminium extrusion on the case.

Assembly

The keyer is now ready to be put into its case. Before doing that fix the ceramic resonator to the track side of the PCB using 8BA nuts and bolts (wire the connection to pad "B" first).

Wire the unit following Fig. 5, but omit fixing the central potentiometer to the front panel until all wiring is completed (use flying leads ready for the control).

Comments

As described, the keyer will drive transmitters that have a positive keying voltage up to 40 volts and 100mA. If your rig is outside this range, then the transistor will have to be changed for a more suitable type. A reed relay could be used, though this will increase the current requirements

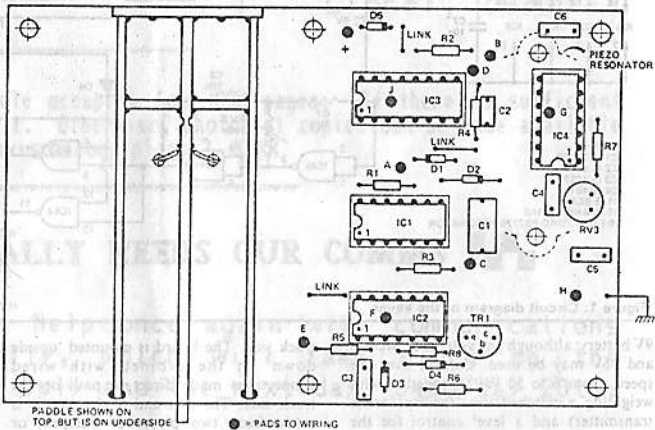


Figure 3: Component placing

if a battery is being used. Another alternative is to change the transmitter circuit or add a high voltage keying transistor to it.

A "tune" facility is provided, which switches the output transistors on, continuously. The value of R4 determines the maximum clock speed and can be lowered (to 10k) should you require increased speed.

If you want to accurately measure the keyer speed, the rate in words per minute = $1.2 \times \text{clock frequency (Hz)}$. The clock

output can be obtained on pin 1 of IC3a, while holding one of the paddle contacts on continuously. The socket on the rear panel marked "speed" is for the R&EW digital speed readout module.

Note: the digital speed readout module was a later project published in the Feb. 1983 issue of Radio & Electronics World.

PARTS LIST

Resistors	
R1,2	47k
R3,6	100k
R4,5,8	15k
R7	1M
Potentiometers	
RV1	100k anti-log with switch
RV2	500k lin
RV3	100k preset 6mm
RV4	100k log with switch
Capacitors	
C1	1u polyester
C2,4,5,6,7	10n ceramic disc
C3	47n ceramic disc
Semiconductors	
IC1	74C00
IC2	4069
IC3	4027
IC4	4011
Q1	BC414(see text)
D1-D5	1N4148
Miscellaneous	
PR1	Toko PB2720 resonator.
14 pin DIL sockets (3 off), 16 pin DIL socket, PP3 battery connector, 3.5mm jack sockets and (3 off), knobs (3 off), 1/2" 6BA spacers (4 off), 6BA 18mm bolts and nuts (6 off), 8BA 18mm bolts and nuts (2 off), PCB materials, plugs Perspex, Centurion case (DX1), rubber feet.	

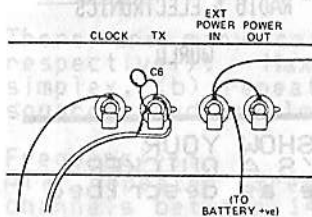


Figure 4: Wiring diagram for the back panel

Circuit Description

The circuit for the complete keyer is shown in Fig. 1. This is a very reliable configuration with no adjustments needed.

The clock, consisting of IC2b, IC1c, C1/R3/R4 and RV1, is a stable RC oscillator. Under quiescent conditions, pin 9 of IC1b is taken high by R1, with both flip-flops at reset giving a logic 1 on pin 10 of IC1b. IC1a and IC1c control the RC oscillator, which is inhibited by a low on pin 4 of IC1c. As soon as either of the paddle contacts are made, pin 4 of IC1c will go high and allow the oscillator to run. The first half cycle of the oscillator places a low on pin 2 of IC1a, allowing the RC oscillator to continue when the paddle is released.

This first clock pulse also clocks IC3a to the set state. Assuming a dash was sent first, IC2d enables the J input of IC3b, allowing it to be triggered by the rising edge of IC3a's output. If the dot contact is closed, IC3b remains in the reset state due to the low on its J input from R2/IC2d.

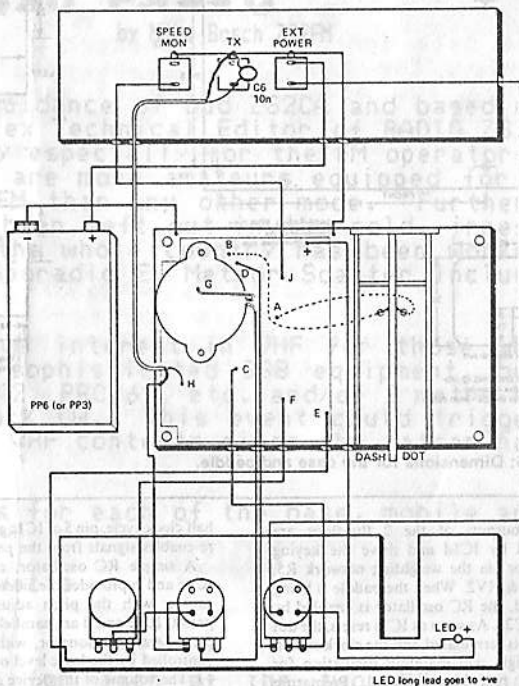
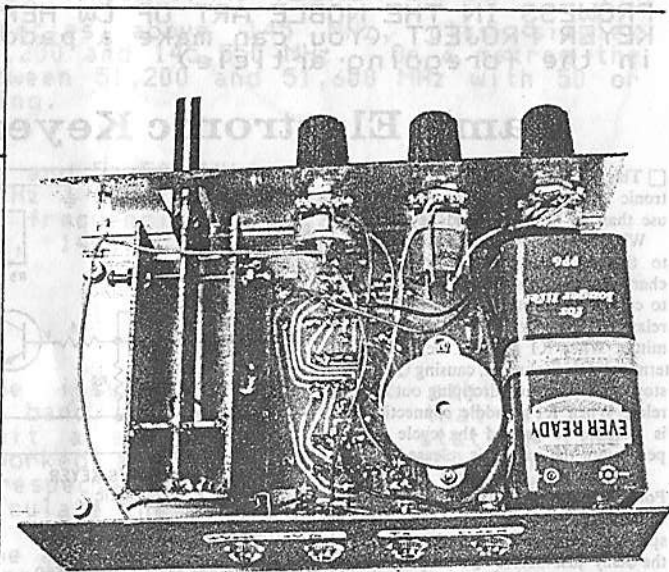


Figure 5: Wiring diagram, inside the case



Internal view of the CMOS Keyer.

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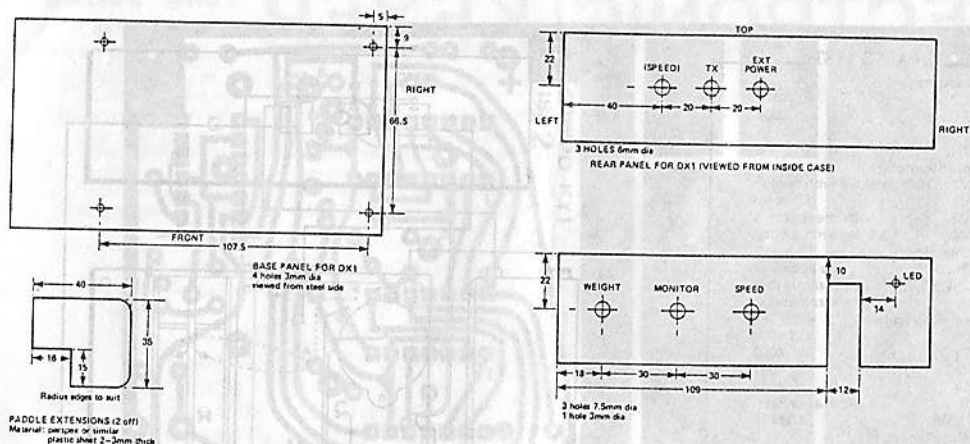


Figure 6: Dimensions for the case and paddle.

The outputs of the 2 flip-flops are summed by IC1d and drive the keying transistor via the weighting network R5, D3, C3 & RV2. When the paddle is being operated, the RC oscillator is enabled by IC1b/IC2a. As soon as IC3a resets, the dot or dash is terminated and the clock signal, being high, will maintain oscillation for another half clock period. Premature triggering of IC1a/IC1c is prevented here, by a logic 0 on pin 5 of IC1c. After another

half clock cycle, pin 5 of IC1c goes high and re-enables signals from the paddle.

A simple RC oscillator, consisting of IC4a and b provides the sidetone monitor source: with the pitch adjustable via a preset. IC4c and d are paralleled to drive a piezo-ceramic resonator, with the output controlled by the logic level on pins 8 and 13. The volume of the device can be set by using RV4 and reverse voltage protection is given, by D5.

With acknowledgements
to
RADIO & ELECTRONICS
WORLD

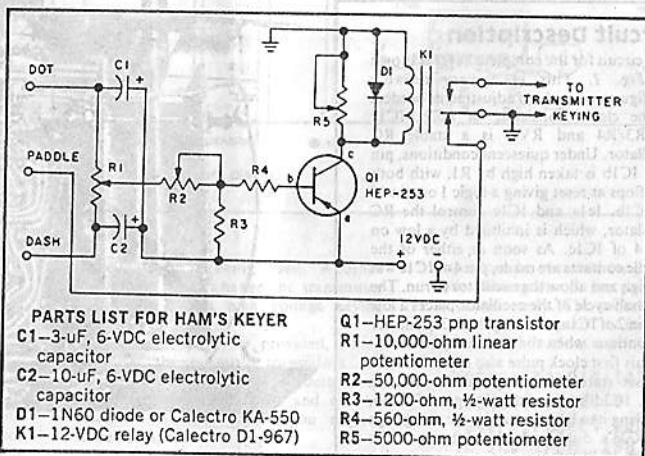
OR, IF YOU'RE REALLY IN A HURRY TO SHOW YOUR PROWESS IN THE NOBLE ART OF CW HERE'S A QUICKER KEYSER PROJECT (You can make a paddle as described in the foregoing article)

Ham's Electronic Keyer

□ This is not the equal of a \$50 electronic keyer, but it's a lot easier to use than an ordinary hand key.

When the paddle terminal connects to the dot terminal, C1 starts to charge. When C1's voltage causes Q1 to conduct, collector current pulls in relay K1, thereby keying the transmitter. When K1 grounds the paddle terminal, C1 discharges, causing Q1 to stop conducting and dropping out the relay. When K1's paddle connection is restored to ground the cycle repeats until the paddle is released.

Dashes work in similar fashion. Potentiometer R1 sets the dot-dash ratio, potentiometer R2 sets the speed. Potentiometer R5 drops out the relay just before Q1 stops conducting and has a slight effect on the dot-space ratio.



VHF QSO PARTY

by Mike Bosch ZS2FM

The PE Branch, under the guidance of Bud ZS2CA and based on a suggestion by Van ZS2Y (ex Technical Editor of RADIO ZS), is planning a VHF QSO Party especially for the FM operators. It is realized that there are more amateurs equipped for 2 metre as well as 6 metre FM than any other mode. Furthermore, the FM operator has been left out in the cold, irrespective of the fact that the whole country has been worked on 6 metre FM via Tropo, Sporadic E, Meteor Scatter including DX on F₂ propagation.

The whole idea is to revive interest in VHF for those who are not in possession of sophisticated SSB equipment, but who own gear such as the C42, PRC261, etc. and/or 2 metre FM transceivers, or cannot work CW. This event could trigger greater interest in future VHF contests since the latter has waned in recent years.

There will be three classes for each of the base, mobile and field (portable) stations:

- Class 1: QRP under 2,5 watts
- Class 2: Under 20 watts
- Class 3: High power.

There are many categories for each of the two VHF bands respectively: Maximum number of stations worked via (a) simplex, (b) repeaters, (c) cross band, (d) number of grid squares, and (e) longest distance.

Frequencies:

All repeater frequencies above 145 MHz, plus simplex channels between 145,200 and 145,550 MHz. On 6 metres the activity will be between 51,200 and 51,600 MHz with 50 or 100 kHz channel spacing.

Calling Frequencies:

Simplex: 145,500 MHz and 51,500 MHz
Cross band: 51,400 MHz / 145,700 repeater
Eastern Cape Repeater frequencies: 145,600, 145,650,
145,700, 145,725, 145,750 and 145,775 MHz

Polarization:

145 MHz - Vertical
51 MHz - Horizontal

Certificates will be issued to the best achievers in categories for each band and class. All that will be required is to submit a simple log sheet stating time, frequency, station worked and his QTH, signal report for simplex or repeater respectively. The committee of the VHF FM QSO Party will calculate the other details.

This is intended to be a fun party and field stations are to be encouraged, and operators may move from one grid square to another. Amateurs from other parts of the country are

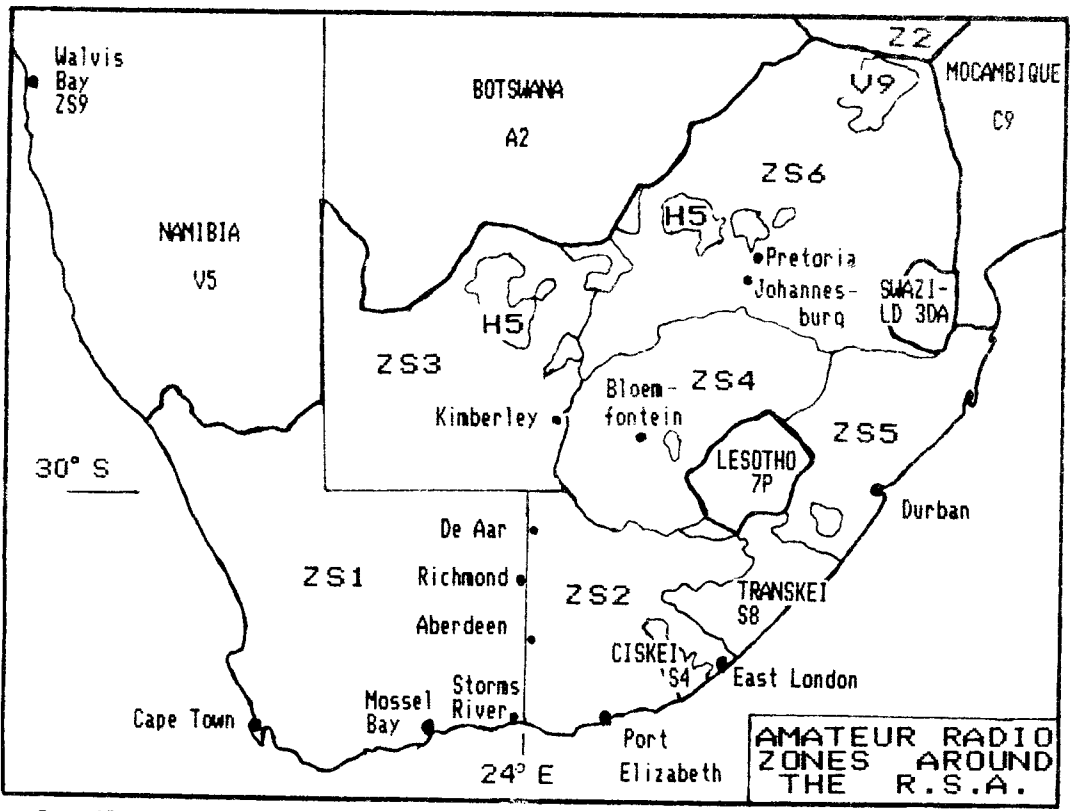
invited to join in and give our guys in the Eastern Cape some long distance contacts.

The date for this VHF weekend will be announced later, but now is the time to dust off that old C42 or what you may have, and start warming it up as well as constructing a suitable antenna for this fun event.

Giggle with St Giles

Now the Pharaoh had a daughter with a most bewitching smile.
She found a baby boy one day while bathing in the Nile.
She took him to her mother, said she'd found him on the shore.
'Alas, my dear', the old girl said, 'I've heard that one before!'
(With acknowledgements to the magazine of St Giles' Church)

Where do you think you are?



This 'n That

PE's UHF repeater has come a step nearer realisation with HQ agreeing to it in principle. The frequency to be used is related to that of the VHF repeater if we operate one on the same site, so we merely have to decide where we want our UHF repeater and go ahead. Colin ZS2CTR is doing the necessary.

Our thanks to OM Bill ZS2BY for his donation of useful radio/electronics magazines extending over a period of eight years, which have been placed in our library. There are also a couple from the early years of radio experimentation, which provide some invaluable historical data.

The President's visit to PE proved to be a highlight on the list of Branch social activities, and a good pat on the back goes to Raphie for providing an excellent spread as well as a comfortable venue for the occasion. Actually, the atmosphere was too convivial. Nobody felt like fighting with Reno.

As this goes to press we await the results of the RAE examination written last month. We have heard of one unhappy notification and sincerely hope the other candidates will have better luck. If not, no problem! Join the current series of lectures and give it another bash in November. You now know what to expect.

Dick ZS2RS has been appointed Convenor of the Branch Sub-committee for the 1994 SARL AGM, which we have offered to host. There is a lot to do, even though the date sounds quite far off. In the subscription renewal notices that HQ will send out soon, space will be provided for you to enter an amount as a voluntary contribution towards our AGM fund should you feel inclined to support it. Copying the last occasion that we hosted this function, it is figured that, if every member could donate about R50, we could lay on a real FB AGM, keeping costs to visitors down in order to attract larger numbers of them.

You are naturally under no obligation to do so and we realise that many members simply cannot. On the other hand, the Branch found last time that many members preferred to donate smaller amount and some wished to contribute on a monthly basis. We will be only too happy to receive such donations, although it will help our planning if the AGM Sub-committee could know in advance what the total minimum contribution will be.

Heard about an unusual Aeronautical Mobile QSO a few weeks ago - ZS1MZ/AM near Cape Town in QSO with ZS1AFP and ZS1GPF at Keurbooms River. ZS1MZ was riding the updraughts of the Cape mountains under his hang-glider, using a 2 metre hand-held through the 650 repeater and the link up the coast to George.

This 'n That (cont'd)

The SARL has been asked if it would be prepared to help with communications for the prestigious international motor rally known formerly as the Paris-Dakar, but which will be extended this year to end in Cape Town.

At this stage we don't know how many operators will be needed from this area or where they will be deployed. Naturally the route could pass a long way from PE, but we're sure that won't deter members from volunteering and enjoying the opportunity of seeing these world-class rallyists in action at close range.

Those who actually read (pronounced 'red') this stuff last month probably wondered what all those hyphens were doing breaking up words in the middle of lines. No, they weren't a lot of spare hyphens lying around that I wanted to use up, but the actual reason is far too technical for the likes of you to understand. Just accept the fact that the gremlins put them there. What's that you say? No such thing as a gremlin? OK then, the fairies.

It's good to hear the frequent complimentary comments on the HF bands about the vitality of the Port Elizabeth Branch, a reputation that is attracting a flow of ordinary and social members. On his visit to PE last month, the President, Reno, also spoke of the high regard that he and Council have for our go-ahead Branch. Which indicates two things - we must be doing pretty well, and Council is not so bad either!

Social Membership

There is growing interest among non-Branch members in the activities of our Branch. This, as well as the technical items that we have been publishing in QSOX-PE, have created a demand for the Newsletter from all over the Republic. While we would like to be able to provide complimentary copies to all who take an interest in our activities, for economic reasons it is unfortunately not possible to do so - it costs R1 or more per copy in basic printing and mailing costs alone to produce.

But do not despair! To accommodate members of other branches, we offer a special 'Social Membership' facility at a low, low cost of only (I'm starting to sound like a Valie, aren't I?) R20 per subscription year. This brings you not only this widely sought-after Newsletter every month but makes you 'one of the boys', or girls, or whatever, of the premier Branch of the SARL (that's PE). You won't have a vote, but you and your spouse will be greeted in our bulletins for your birthdays and wedding anniversary if you furnish us with the relevant information. Where can you get better value for a miserable R20? (I do sound like a Valie).

Congratulations... to all celebrating in the coming weeks, the ones of whom we know being:

Birthdays - June: Lionel Wrankmore 2R2AAJ (25th); Ben Taljaard 2R205 (26th). **July:** Julie Scarr (262AE) (30th); Werner Ahlers 2S2WA and Jim van Loggerenberg 2S2LF (both on 7th).

Anniversaries - June: Mandy and John Masters 2S2AAN (26th). **July:** Marge 2S20B and Brian 2S2AB Weller (4th).

Welcome... to new members Chick Henderson 2S1ABY of Plattenberg Bay, Henk-Jan Busse 2S2-273 of Knysna, Paddy Furlong 2S1GPF of Keurbooms River, Fred Friskin 2S2-272 of Port Elizabeth and Andre Botes 2R2FK of Port Elizabeth. We know that you will all be as glad as we are that you joined us. A few others have told us that they, too, intend to join the fold of this, the No. 1 Branch.

- Also a warm welcome to all members of our technical classes. You have chosen a very special hobby that, particularly in the case of the younger people, can open many doors to a great future in radio and electronics - the backbone of virtually every new technical innovation today. For the older members, the long-term benefits will probably spring more from the instant, yet genuine and lasting friendships, both local and international, that materialise in a manner unique to the Amateur Radio fraternity. We watch your progress in the RAE classes and in Ham Radio with sincere interest.

TEN RETTAN YADSEUT EHT TEGROF T'NOD !!

Or, to put it another way, **DON'T FORGET THE TUESDAY NATTER NET.** The Town repeater (145,050/650 MHz) at 19:30 (7.30 pm) on Tuesdays is the place to be for a general natter - that is, if you're not involved with the technical classes.



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REPEATER WORKING GROUP CO-ORDINATOR	Trevor Scarr	ZS2AE	32-1746

BULLETIN ROSTER

Bulletin readers please refer to your roster sheet.

SUNDAY BULLETINS

Bulletins are transmitted on Sundays at about 08:40 (after the Headquarters bulletin) on -

- 7,098 MHz (40 metre band SSB)
- 145,700 MHz (2 metre band FM - Lady's Slipper)
- 51,400 MHz (automatic link with 2 m Lady's Slipper)
- 14,130 MHz (20 metres SSB) when conditions require.

BRANCH VHF SERVICES

Town Repeater (PE Central)	145,050	/	145,650 MHz
Grahamstown Repeater	145,150	/	145,750 MHz
Lady's Slipper Repeater	145,100	/	145,700 MHz
6 metre link with Lady's Slipper ..	51,400		MHz (simplex)
Cockscomb Repeater	145,000	/	145,600 MHz
Kareedouw Repeater	145,075	/	145,675 MHz
University Repeater	145,175	/	145,775 MHz
6 metre beacon (ZS2SIX CW ID)	50,005		MHz
2 metre beacon (ZS2PE CW ID)	144,910		MHz

BRANCH MEETINGS

20:15 (8.15pm) on the third Friday of the month at St. Martin's Presbyterian Church, Great West Way, Kabega Park.

**** We like being your branch ****