

# Q S X P E

## **ZS2PE**

FREQUENCIES:

Bulletin	3640 Khz
	7102 Khz

National Call	145,5 Mhz
P.E. Repeater	145,05/65
Grahamstown	145,15/75
Lady's Slipper	145,10/70



*Port Elizabeth Branch of the  
South African Radio League*

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

6 APR 1981

PORT ELIZABETH BRANCH.

REMEMBER.....REMEMBER.....REMEMBER.....REMEMBER.....REMEMBER.....REMEMBER

THE NEXT MONTHLY MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE WILL BE HELD AT THE Y.M.C.A., HAVELOCK STREET, ON 10TH APRIL, 1981, AS THE THIRD FRIDAY IS GOOD FRIDAY. WE WILL BE HAVING A GUEST SPEAKER, MR. A. SCOTT, LECTURER IN ELECTRONICS AND COMMUNICATIONS AT P.E. TECHNIKON. PLEASE ATTEND THE MEETING. C U THERE.

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MINUTES OF THE GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE S.A.R.L. HELD AT THE Y.M.C.A., HAVELOCK STREET, PORT ELIZABETH ON 20TH FEBRUARY, 1981.

PRESENT: 22 members and visitors.

APOLOGIES: ZS2AJ, ZS2KT.

The Chairman welcomed all to the meeting, especially Clive Fyfe, Alan Wood ZR2DF, the ladies, and Sheila ZS2BF and Brian ZS2TY from Uitenhage.

MINUTES: The Minutes of the meeting held 16th January, 1981, having been published in QSX-PE and circulated, were taken as read, proposed by ZS2AB and seconded by ZS2TJ.

ARISING: The question was asked re the P.M.G. Liaison Meeting and it was stated that the results of this would probably be published in Radio ZS, but that the minutes were available at the meeting for those who wished to see them. The trip to Grahamstown would be dealt with under General.

CORRES: Letter from Mr. Selkirk of Grahamstown.  
Minutes of Council meeting 28th January, 1981.  
Letter from Cape Town Branch.

ARISING: The Chairman read the letter from the Cape Town Branch, in which they had enclosed raffle tickets at R5 for funds for the A.G.M. It was stated that this was unprecedented, as it was usually the host Branch which raised funds.

FINANCE: The Treasurer said that he had received the Electricity account, but there was no payment due.

GENERAL: Members were asked to note that the April meeting would be on the second Friday of the month, as the third Friday was Good Friday. At the April meeting, there would be a guest Speaker, Mr. A. Scott, a lecturer in Electronics and Communications at Technikon. The date of the meeting was 10th April, and the Chairman asked for a good attendance.

As regards the trip to Grahamstown, the Branch was prepared to subsidise the cost of a bus and tickets would be sold at R2 per head, which made it much cheaper than anyone could travel there and back. It was essential that names and numbers be handed in to the Secretary as soon as possible. The Chairman stated that he and the Secretary had received calls from Alan Armstrong ZR2DM from Grahamstown, offering the use of his ground for the get-together. He felt that in view of the fact that there was a large hall on the property, it might come in useful should the weather be unfavourable. After a unanimous vote, it was decided to take up Alan's offer. Brian ZS2TY said that Breda had offered to help with anything that needed to be done. It was suggested that those attending should wear tags with name and call-sign on. It was decided to set up an HF station and the Chairman would provide a rig.

At this stage, nominations were called for for the Delegate to represent the Branch at the A.G.M. and ZS2RS Dick was nominated, with Peter ZS2PS as the alternate delegate, proposed by ZS2AB and seconded by ZS2OB.

The A.G.M. motions were then discussed and the delegate was instructed to vote as follows:

- 1, 2, 3, 4. Accepted.
5. NO
6. No. It was decided that there was not suitable motivation and Cyril ZS2KX wanted to know what would be done with the money as there was a large bank balance. Fred Bonthuys said that there had been a tremendous increase in the C.O.L. and there must have been strong grounds for the request. It was decided to vote against the R10 entrance fee.
7. ZS2AE said that should the above be lost, the delegate should move that the R10 be amended to R5. It was to be left to the delegates discretion according to the previous motion.
8. Agreed.
9. Against.
10. Delegate's discretion, subject to further motivation.
- 11, 12. Carried.
13. Carried. ZS2KX said this was the only sensible motion, but should only come up every 33rd year. Fred said that it should not be allowed at all.
14. Lost.
- 15, 16. Carried.
- 17 (a), (b) (c)(d) Lost.
- 18, 19, 20, 21. Carried.
- 22 6 voted against.
23. Against.
24. Delegates discretion.
25. Carried. Amend to "local V.H.F."
26. Lost.
27. Against.
28. Propose that C.B. operation be deleted.
29. Carried.

The Chairman reminded members of the change of venue and hoped to see as many as possible on the bus to Grahamstown. He asked members to please support the next meeting when we would be having a guest speaker and reminded them of the change of date.

sgd:  
R.W. Schönborn ZS2RS  
Chairman

sgd:  
M.T. Colson ZS2OB  
Secretary.

# SOCIAL GET-TOGETHER - GRAHAMSTOWN - 15TH MARCH, 1981.

On Sunday 15th March, at 9a.m. or thereabouts, a luxury bus left Port Elizabeth for Grahamstown, loaded down to the springs with amateurs from Port Elizabeth, Uitenhage, Umtata, Kirkwood, and Humansdorp and all their eaties for the day. On arrival at the QTH of Alan ZR2DM at Stoneshill, they were met by a large contingent from Grahamstown, Kingwilliamstown, Fort Beaufort, East London and a few others who had travelled from Port Elizabeth by car. The amateurs from Grahamstown had gone to a lot of trouble and provided everyone with tea and coffee on arrival, and as the weather was not too bright this was very much appreciated. They had also made arrangements for braai fires and provided the wood and charcoal and grids. Very shortly after everyone had finished their braai-ing, the heavens opened, but thanks to Alan's foresight, we were able to make use of the hall and other rooms on the property. When the bus left at about 3p.m. it was still pouring, but cleared up shortly. The day was thoroughly enjoyed by all, the spirit of ham radio and good friendship was very evident, new friends were made, old acquaintances renewed, and the children, too, had a good time with all the play things laid on in the grounds. The question on everyone's lips "When can we do it again? Can we make it an annual event?" Members from Port Elizabeth, Kaffrarian, East London and Algoa Branches and Transkei were present, and new members signed up for some of the Branches. Maybe we will see you there, next time?

AND LAST BUT NOT LEAST, A VERY, VERY BIG THANK YOU TO ALAN AND MARY FOR THE USE OF THEIR PROPERTY; TO DUDLEY, SEYMOUR, BREDÁ, GRAEME AND ANY OF THE OTHERS WHO HELPED IN ANY WAY TO MAKE THE DAY SUCH A SUCCESS - HERE'S LOOKING FORWARD TO THE NEXT ONE.

# IMPROVING THE HAM II OR CD 45 ROTATOR CONTROLLER by Gordon Harris ZS2GH

Most Dx enthusiasts who use either the Ham II or CD 45 rotator unit to turn a heavy HF beam antenna have probably at some time considered the desirability of modifying the control unit in order to prevent the wedge brake solenoid from being de-energised until the antenna has come to a halt. The controller has 3 push-buttons, one for turning the antenna in a clockwise direction, another for turning it anti-clockwise and one in the middle for disengaging the wedge brake. If these controls are reduced to 2 in number, operation is considerably simplified.

I have built an add-on unit which provides

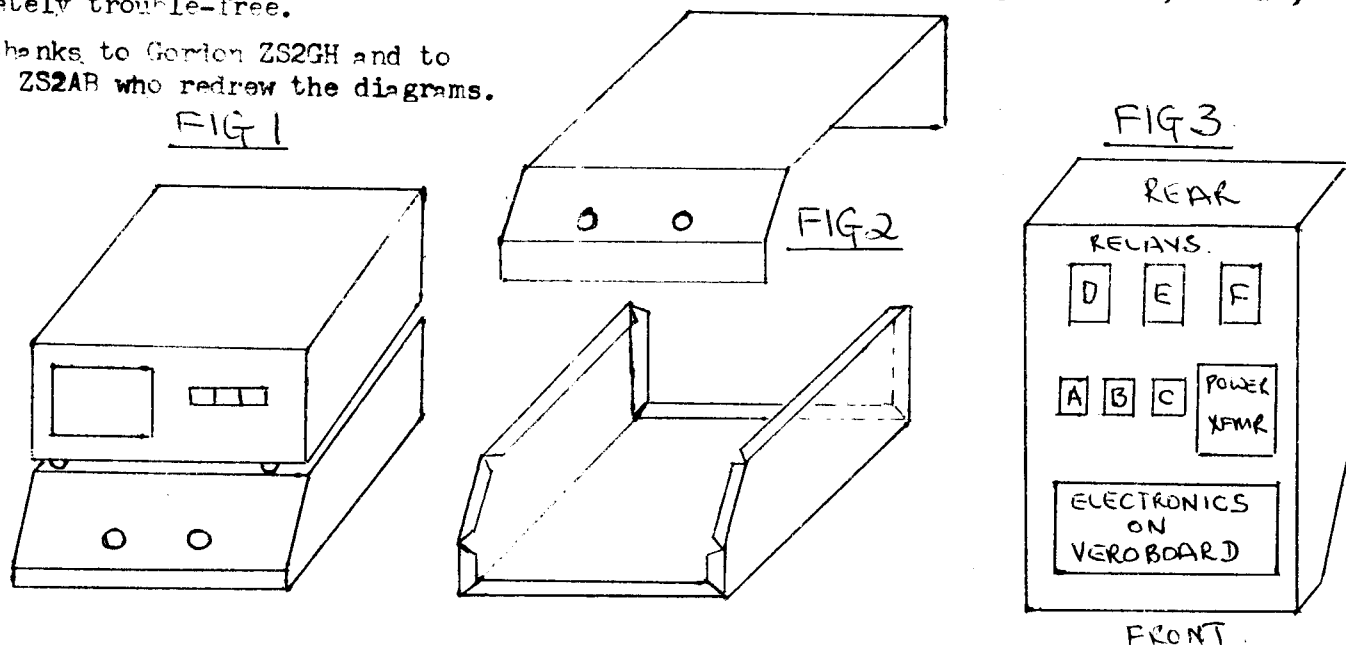
- (1) single-finger operation of the controller
- (2) a short delay to allow the brake to be properly disengaged before voltage can be applied to the motor winding
- (3) a longer delay to allow the antenna to come to rest after removing one's finger from the control button before the brake is re-engaged.

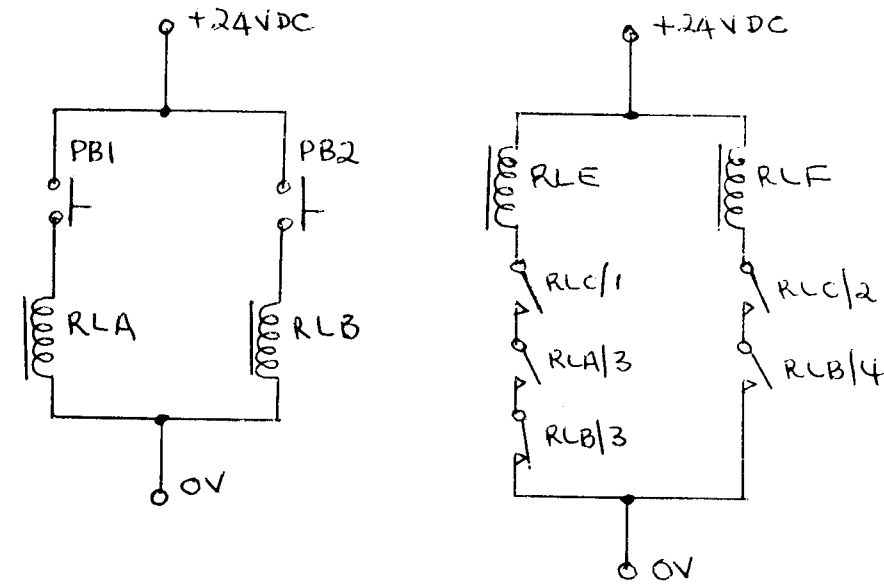
The unit is housed in a steel enclosure with a sloping front panel. It sits under the original controller and is connected to it via 2-core and 3-core 0.75 mm<sup>2</sup> cables which enter via holes drilled in the rear panel and which can easily be removed should one wish to sell the controller in the unmodified state. The enclosure is shown in Fig. 1 and its dimensions are given in Fig. 2. The layout of the main components is shown in Fig. 3. The circuit diagram of the unit (excluding power supply) is shown in Fig. 4. A mains power supply was built-in as it was desired that the minimum number of connections should be made to the CDE controller. The delay circuits used are based on one found in the useful ARRL publication "Solid State Design for the Radio Amateur".

When neither pushbutton is operated, the output (pin 3) of U 1 is held low and that of U 2 high and thus neither RLD nor RLC is energised. D 2 in the U 2 circuit clamps the voltage on pin 6 to that on pin 2 and prevents the 'timing-out' operation from starting until the input, pin 2, goes high. On a pushbutton being pressed, the output of U 1 immediately goes high, causing the brake to be released. After a short delay, determined by the values of RT and CT in the U 2 circuit, the output of U 2 goes low causing RLC to be energised. Depending on which pushbutton has been pressed, either RLE (anti-clockwise) or RLF (clockwise) will be energised. The normally-closed contact RLB/2 prevents RLE from being energised should both buttons be pressed simultaneously. On releasing the pushbutton, RLC is immediately de-energised, removing the supply to the motor, and U 1 starts to time-out allowing, with the values of RT and CT shown for that circuit, approximately 2 seconds for the antenna to come to a halt before the brake is applied.

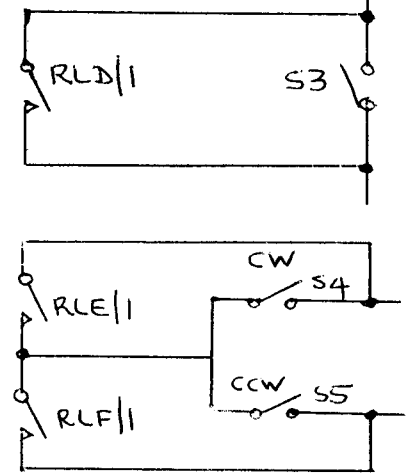
The choice of components and circuitry was, in my case, influenced by the availability of suitable surplus relays, the other components being relatively cheap and readily available (even in Port Elizabeth!) and by the fact that space was not critical, as the enclosure had to be large enough to support the CDE controller. Although with a little more thought, a more elegant and simpler method of achieving the same results could probably be found, this unit has proved to be pleasant and easy to operate and, so far, completely trouble-free.

Many thanks to Gordon ZS2GH and to Brian ZS2AB who redrew the diagrams.





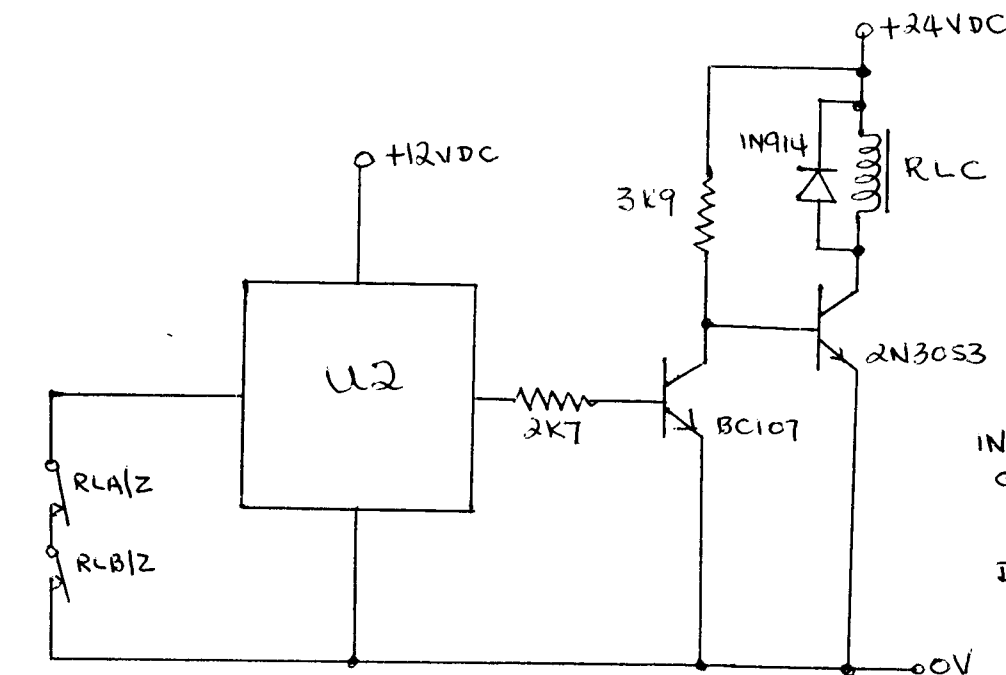
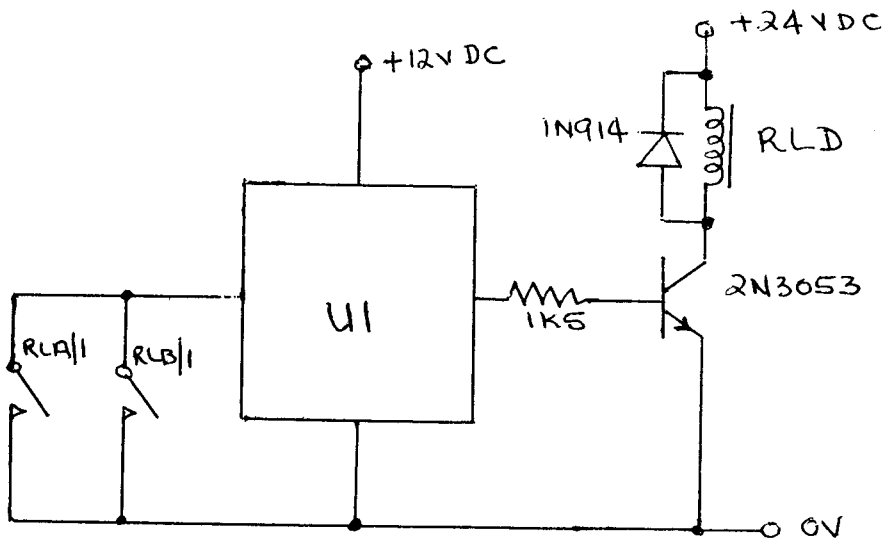
CONNECTIONS TO CDE  
CONTROLLER SWITCHES



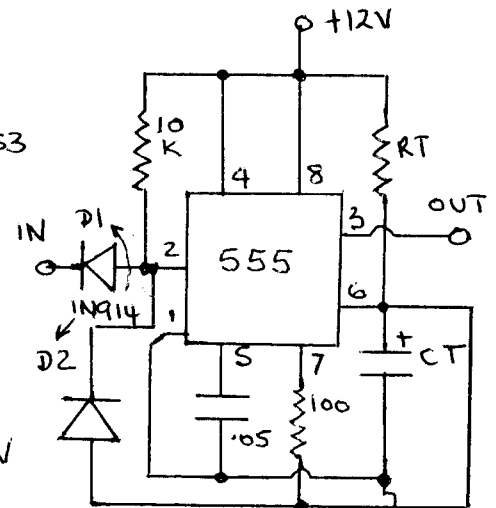
S3 ABOVE IS BRAKE  
AND ROTOR SWITCH.

RELAYS RLA, RLB, &  
RLC ARE  
CONTINENTAL TYPES  
(1A CONTACT RATING)

RELAYS RLD, RLE & RLF  
ARE PLUG IN OCTAL  
SERIES (10A CONTACTS)



UNITS U1 & U2



U1 RT=470K  
CT=4.7μF 0V  
U2 RT=100K  
CT=4.7μF

FIG 4

TEN COMMANDMENTS FOR AMATEURS.

1. Beware the lightning that lurketh in the undischarged capacitor, lest it cause thee to bounce upon thy buttocks in a most un-amateur-like manner.
2. Cause thou the switch that supplieth large quantities of juice to be opened and thusly tagged, that thy days in this earthly veil of tears may be long.
3. Prove to thyself that all circuits that radiateth and upon which thou worketh are grounded and thusly tagged lest they lift thee to radio frequency potential and causeth thee also to make like a radiator.
4. Tarry notamongst those fools who engageth in intentional shocks for they are surely nonbelievers and are not long for this world.
5. Take care that thou useth the proper method when thou takest the measure of a high-voltage circuit lest thou incinerate both thyself and thy meter, for verily, though thou hast no account number and can easily be surveyed, the test meter doth have one and, as a consequence, bringeth much woe unto the supply department.
6. Take care that thou tampereth not with safety devices and interlocks, for this incurreth the wrath and bringeth the fury of the safety inspector down upon thy head.
7. Work thou not on energised equipment, for if thou dost, thy fellow amateurs will surely buy beers for thy widow and console her in other ways.
8. Service thou not equipment for electrical cooking. It is a slothful process and thou might sizzle in thine own fat for hours upon a hot circuit before thy Maker sees fit to end thy misery.
9. Trifle thou not with radioactive tubes and substances lest thou commence to glow in the dark like a lightning bug and thy wife have no further use for thee except thy wages.
10. Thou shalt not make unauthorised modifications to equipment, but causeth thou to record all changes and authorised modifications made by thee, lest thy successor tear his hair out and go slowly mad in his attempt to decide what manner of creature hath made a nest in the wiring of such equipment.

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WE WOULD LIKE TO WISH DICK ZS2RS, THE CHAIRMAN OF THE BRANCH AND OUR DELEGATE TO THE LEAGUE ANNUAL GENERAL MEETING TO BE HELD IN CAPE TOWN OVER EASTER WEEKEND, ALL THE VERY BEST AND ENJOY THE WEEKEND AND THE MEETING.

\*\*\*\*\*

FOR SALE:

Heath SB 101 SSB/CW transceiver. 80 - 10 metres with matching AC power supply/speaker. In working order. With manual. R350.00. Please phone Brian ZS2AB at 21173 (business) or 303498 (home.)

On behalf of other seller: Yaesu FT 100 transceiver SSB/AM/CW. 80 - 10 metres. Built-in power supply 12/240v. With speaker, microphone and manual. R200. Please phone Marge 303498.

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WE WOULD LIKE TO TAKE THIS OPPORTUNITY TO WISH EVERYONE A VERY HAPPY EASTER, ENJOY THE LONG WEEKEND, DRIVE CAREFULLY AND GET HOME SAFELY. GOOD DX TO THOSE WHO WILL BE STAYING AT HOME.

\*\*\*\*\*

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- Built-in RF attenuator.
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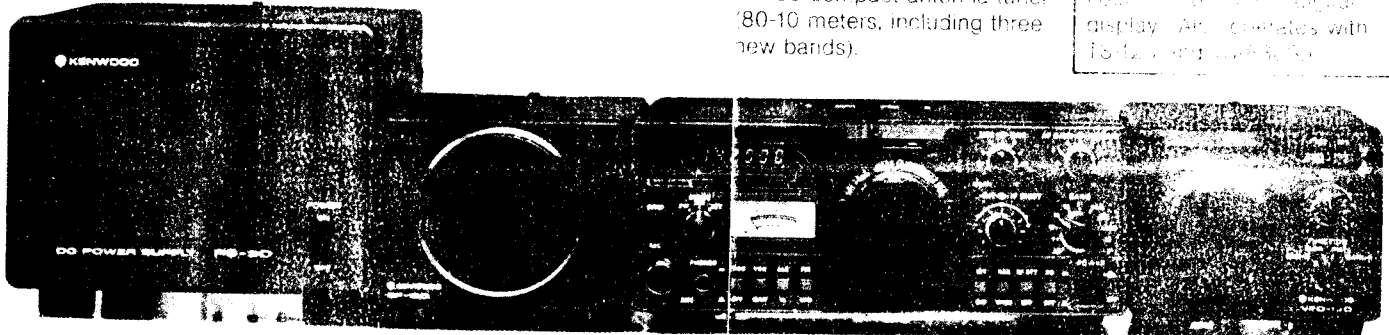
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PS-30

SP-120

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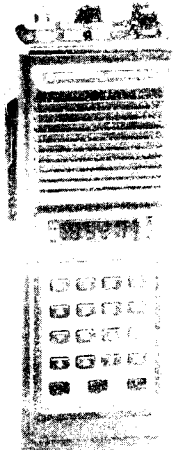


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- Quartz digital clock and ON/OFF timer.
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