

AMATEUR

QRM

RADIO

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Branches of the Wireless Institute
of Australia, Tasmanian Division.

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OSCAR CHART

MEETINGS

May 12	Northern Branch, Clubrooms - 34 Bourke St.	8 p.m.
May 11	NorthWest Branch, Lakins Hall, Ulverstone	8 p.m.

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OSCAR CHART

PAID \$ 2-50 (IN APRIL 78)

QRM Comment

Welcome to another issue. We have included a printed circuit board layout for last months PPL demodulator, thanks to Ed, VK7HE. Approximate cost of this project, less power supply is \$10.12. An article on an AFSK Keyer is included in this issue, plus some other RTTY information.

Bob, VK7ZRF has started a series on test equipment, and featured this month is a GDO, which can be completed in short time. Meters for this project are available ex store.

If anyone is interested in state of the art SSTV then printed circuit boards (produced in Australia) are available for a digital scan convertor. Similar to the robot device selling at \$695.00 US. It can be built for less than half price. The boards are double sided, 2oz copper, plated, and including through holes. Contacts are gold plated. The boards are available for between \$80 - 90 AUST. Inquiries to 7CCC or 7ZMM.

As you can probably guess the main job of QRM is to chase around for articles, and nearly always the same group of people supply these. I'm often asked, "What can I write about". Well Brian Lord, VK7ZBL asked for an article on towers, computations etc. Well that seems like an invitation for Kirby VK7ZKB, who is a metallurgist to come up with an article. How about it Kirby? Perhaps one of the electrical members can give some practical hints on wiring radio shacks; how about articles you have adapted to suit your own situation, and last but not least, please some information for our "Personality Page". This month's issue will give you some idea of what we are after.

Bill Tanner has offered a QQEO/40 to the person who comes up with the best suggestion for the use of crystals which are on frequencies of 12.5 and 16 Khz. These crystals are available ex store.

RTTY Date to remember 17th May - Peter Ackerley of P & T will be along 7pm to give a short discussion on teletype machines in general. In addition he will have equipment to get your machine into the correct speed etc. We want to get as many members as possible along - bring your machine (and loop supply - unless it is too heavy). Members from the NW and Southern groups are invited also. Tea and biscuits after.

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NORTHERN BRANCH NOTES

Maurice, VK7JU

The Northern Branch meeting was held on Friday 14th April at Burke Street, clubrooms. 27 people attended. A letter from Bill Tanner was tabled, it was resolved that suggestions in regard to a storage cabinet be investigated and put in hand by the Executive as soon as possible.

The Treasurers report and balance sheet was tabled by Tony VK7TP. Discussion followed on the trading loss on last years Branch activities. It was moved by Brian VK7ZBY that the report be received subject to audit. Seconded Ed, VK7HE.

Peter, VK7PF reported on the funding of WARC 79. Peter requested that items for the Agenda of the Federal Convention be sent without delay.

Brian VK7ZBY requested funds be made available to cover such items as timber etc for the trestles required for classroom purposes and to enable completion of storeroom and fitting out - VOTED \$100.00.

Volunteers with hand held 2 metre gear are required to ensure the success of WICEN exercises on 30th April in the Relbia area. Contact Reg, VK7KK for further information. PHONE 31-2090.

It was agreed that the charge account in the Trading Bank be transferred to the Equitable Building Society. Moved VK7TP, Seconded VK7HE.

After the meeting slides were shown by VK7PF. These included views of MT BARROW and LAUNCESTON AIRPORT. This was followed by films on Antenna Fundamentals. Thanks to VK7ZWX and VK7KK.

New member to look for:-

Bob Pearson VKZNFZ (ex Newcastle) and lately residing George Town area. Has been moving into new premises and it should not be too long before Bob is on the air again.

Allan Renton, ex VK4AZ will no doubt be finding the climate here somewhat different to that of the previous QTH, Proserpine, QLD. Our best wishes to Allan in his new sphere of activities.

73s Maurice.

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FOR SALE: SHACK - VK7DA - 31 VALE STREET, LAUNCESTON
PHONE: 44 6886

2 AT 12V 200 AHR BATT.	\$36.00 EACH
BELCOM LINER 6. 6 METRES SSB	\$180.00
BELCOM LINER 2. 2 METRES SSB	\$200.00
BELCOM LINER 10. 10 METRES SSB	\$200.00
BELCOM VP156 EXT VFO FOR 10, 6, 2 METRES	\$115.00
2 METRES 60 WATT AMP SOLID STATE	\$60.00
SMALL LATHE METAL AND ACCESS	\$400.00
HF TRAPPED DIPOLE 10 - 80 MIDY VN	\$45.00
LOADED $\frac{1}{2}$ WAVE VERTICAL 27 MHZ	\$35.00

Cut end of cable even. Remove vinyl jacket $1\frac{1}{2}$ ".

INFO ON CO AXIAL
CONNECTORS

Bare $\frac{1}{8}$ " of conductors. Tin exposed conductors and braid.

Slide coupling ring on cable. Screw back shell on cable. Solder hole should align with conductors as shown.

Assemble front shell to back shell. Solder holes in both front and back shells should align. Solder braid to shells through solder holes. Solder conductors to contacts. Do not use excessive heat.

For final assembly screw coupling ring on back shell.

Tracking OSCAR 8

The reference orbit information published in AR and elsewhere is the time and location of the first crossing of the equator northbound for a GMT day. From this data find the nearest time in the following list and what follows that is the in range orbit for that day. eg if ref time is 0106 Z the nearest time in list is 0105Z and you will find that the first orbit in range of VK7 will be at AOS 1105Z after crossing equator at 0941 for start of orbit 5 for that day. AOS means aquisition of signal. LOS loss of signal. °W is equator crossing longitude, all degrees west of Greenwich not East and West. The first orbit in range will over to the East with satellite going from south to north. The next orbit will be roughly overhead and the last one out to the west for the evening passes. Orbits 12 and 13 are morning passes with satellite going from north to south.

Orbit	Z	°W	AOS Z	LOS Z	Orbit	Z	°W	AOS Z	LOS Z
0	0000	039	0057	0109	0	0005	040	0102	0114
5	0836	168	1004	1013	5	0841	169	1007	1019
6	1019	194	1143	1159	6	1024	195	1147	1204
7	1202	219	1322	1339	7	1207	221	1328	1344
12	2038	348	2136	2152	12	2043	350	2141	2157
13	2222	011	2319	2334	13	2227	015	2324	2339
0	0010	41	0107	0119	0	0015	43	0112	0124
5	0846	170	1012	1024	5	0851	172	1017	1035
6	1029	196	1152	1208	6	1034	197	1157	1214
7	1212	222	1333	1345	7	1217	223	1337	1354
12	2048	351	2146	2202	12	2053	352	2151	2207
13	2232	017	2329	2344	13	2237	018	2334	2349
0	0020	041	0118	0126	0	0025	045	0123	0131
5	0856	173	1021	1035	5	0901	174	1025	1040
6	1039	199	1201	1218	6	1044	200	1206	1223
7	1222	224	1343	1359	7	1227	226	1348	1404
12	2058	353	2155	2211	12	2103	355	2200	2216
13	2242	020	2339	2354	13	2247	020	2344	2359
0	0030	046	0128	0136	0	0035	048		
5	0846	175	1031	1045	5	0911	177	1036	1050
6	1049	201	1211	1228	6	1054	202	1216	1233
7	1232	227	1353	1409	7	1237	228	1358	1413
12	2108	356	2205	2221	12	2113	357	2210	2226
13	2252	022	2349	0004	13	2257	023	2354	0008
0	0040	049			0	0045	050		
5	0916	178	1040	1055	5	0921	179	1045	1100
6	1059	203	1221	1238	6	1104	205	1225	1243
7	1242	229	1403	1418	7	1247	231	1408	1423
11	1935	333	2036	2049	11	1940	334	2041	2054
12	2118	358	2215	2231	12	2123	000	2220	2236
13	2302	024	2359	0013	13	2307	025	0004	0018
0	0050	051			0	0055	053		
5	0926	180	1050	1105	5	0931	182	1055	1110
6	1109	206	1231	1248	6	1114	207	1236	1253
7	1252	232	1413	1428	7	1257	233	1417	1431
11	1945	335	2046	2059	11	1950	336	2051	2104
12	2128	001	2225	2241	12	2133	002	2230	2246
13	2312	027	0009	0023	13	2317	028	0014	0027
0	0100	054			0	0105	055		
5	0936	183	1100	1115	5	0941	184	1105	1120
6	1119	209	1241	1257	6	1124	210	1246	1302
7	1302	234	1422	1436	7	1307	236	1427	1441
11	1955	338	2054	2109	11	2000	339	2059	2114
12	2138	003	2235	2251	12	2143	005	2240	2256
13	2322	029	0019	0032	13	2327	030	0024	0037

0	0110	056		
4	0803	160	0934	0935
5	0946	185	1110	1125
6	1129	211	1251	1307
11	2005	340	2104	2119
12	2148	006	2245	2301

0	0115	058		
4	0808	161	0939	0940
5	0951	187	1115	1130
6	1134	212	1256	1312
11	2010	341	2049	2124
12	2153	007	2250	2306
13	2337	033	0034	0046

0	0120	059		
4	0813	162	0943	0947
5	0956	188	1119	1136
6	1139	214	1300	1317
11	2015	343	2114	2129
12	2158	008	2255	2310
13	2342	034	0039	0051

0	0125	060		
4	0818	163	0947	0954
5	1001	189	1124	1141
6	1144	215	1305	1322
11	2020	344	2119	2134
12	2203	007	2300	2316
13	2347	035	0044	0056

0	0130	061		
4	0823	164	0951	1000
5	1006	190	1129	1146
6	1149	216	1310	1327
11	2025	345	2146	2203
12	2208	011	2305	2320
13	2352	037	0049	0101

0	0135	063		
4	0828	166	0956	1005
5	1011	192	1134	1151
6	1154	217	1315	1331
11	2030	346	2129	2144
12	2213	012	2310	2325
13	2357	038	0054	0106

This data calculated using
period of 103.23 minutes
longitude increment 25.8°
The OSCAR 6-7 tracks can
be used on tracking map
with correction for long.
shift and time along track.

Peter VK7PF

DEFINITIONS

Sub Editor.....A person who chases around for suitable articles for QRM; often several visits are needed for one article. Usually needs to decypher to a suitable form for typist. Requires the ability to coerce a typist into doing the work; a box of chocolates usually does the trick. Payment nil, though if you are lucky your local telephone bill might go up in cost.

WANTED

One SUB Editor for the NW coast...Qualifications above..We desperately need articles from the coast. PLE E E E se.

FOR SALE....VK7JG....PH 443882

SIDEBAND ELECTRONICS SE50T 27 MHZ MODIFIED TO 2 METRE TRANSVERTOR/
DRIVER. COMPLETE WITH XTALS TO COVER 144 TO 144.5 AND 145.8 TO 146
PRICE..90 DOLLARS----- 6 FOOT DISH WITH MOUNTING BRACKETED..45 DOLLARS
POWER SUPPLY TRANSFORMER 2500 V PER SIDE...10 DOLLARS.

WANTED

DISTORTION AND NOISE METER--HF AND VHF SIG GEN--TF995 OR SIM

ADVISE ..JOE VK7JG

FOR SALE:

6 metre transvertor :\$30.00

Ed, VK7HE

Robot model 7 SSTV Monitor
PCB (:\$15.00

Sanyo Stereo Radiogram Chassis
with FM/AM tuner
Mike mixing :\$20.00

KLM 432 MHZ 16 EL YAGI complete
with balun :\$45.00

Joe, VK7JG
Phone - 443882

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VHF NOTES

Joe, VK7JG

Surprisingly 6 metres has been open on several occasions during month. Brian VK7RRR reported that he worked JA's and ZL's, Danial VK7DA VK4's JA's, myself VK4ZKC/M Brisbane. On several evenings CHØ TV from Brisbane was watchable but no stations were worked. I have also been told that a JA worked into Mexico; this should be a new world record, and VK4's have worked KH6's. As you can see the increasing sunspot activity has helped 6 metres this month we should be looking forward to 6000 mile winter 6 metre openings around June/

2 metres has also been usable during the month but it appears th the VK3's are not particularly interested in operating into VK7. From what Bi VK7AK reported, activity in Melbourne on 144.1 and 144.2 is quite high although we never hear them in VK7, although Kevin, VK7ZAH is able to hear the VK3 beac most of the time. That's all for this month,

73s Joe

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DX NOTES

Col, VK7LZ

Whilst DX worked makes for good talking - or writing its more important to know what the future holds in store and this is certainly a much tougher proposition however to start with we'll live in the past and then move forward.

CONTINUE

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RESERVED FOR Y O U R ARTICLE

DX NOTES (cont)

Col, VK7LZ

Conditions generally, although patchy, are still improving day by day. 28 Mhz is now a band worthy of more time as our novices will testify, Allen VK7NAB and John VK7NJD have been busy and have QSO'ed some exotic DX including African stations whilst 7AE and 7AK have also had some excellent break throughs to the dark continent.

21 Mhz - also a busy band and appears to be open almost 24 hours daily and all continents have been worked by VK7's during the month. Some good South and Central American countries keep coming up during our afternoons, mostly with S7 to S9 signals.

14 Mhz - Still living up to its good reputation and T1 and DX on Cocos Islands was the catch of the month here. Central and South Americans are in abundance as are Asiatic and Europeans however Africans have been more noticable by their absence.

Now for the present, and future.

G31IAC is now operating from Andorra and has been QSO'ed on 14 Mhz SSB. QSL to the REF bureau VR80 is also active. Dave will be on Tuvalu for six months. QSL, C/- Met. Office, Funafuti, Tuvalu, Central Pacific.

P29JS still hopes to be active from the Cocos Keeling islands as a VK9 from the 1st May, or possibly two weeks later.

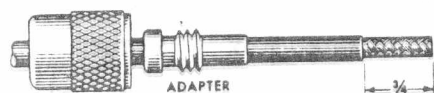
ZK2, Niue Island, operation from this QTH is due to commence on the 26th May and will be on location until the 9th June.

ZL3, Chatham Island - Look for this one about the first week in May, he will be on Chatham for 14 days.

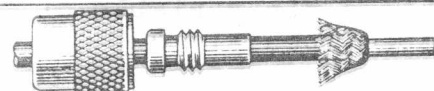
Y11, this country is now active and will have a club station operating in future.

8Z4 Saudi Arabia/Iraq neutral zone. According to ZL2HE the DX editor of "Break-In" a licence has been issued for this country and operation is scheduled in May or June.

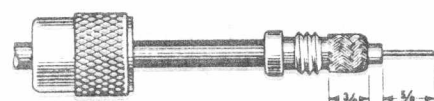
In spite of numerous QSL managers being mentioned for the Clipperton Island expedition on two occasions members of the expedition have told me to QSL via HB9MX. (Since writing these notes HB9MX has advised that all cards will be in transit by the end of May).



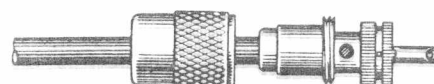
Cut end of cable even. Remove vinyl jacket $\frac{3}{4}$ ". Slide coupling ring and adapter on cable.



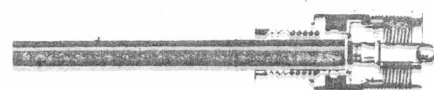
Fan braid slightly and fold back as shown.



Position adapter to dimension shown. Press braid down over body of adapter and trim to $\frac{3}{4}$ ". Bare $\frac{5}{8}$ " of conductor. Tin exposed center conductor.



Screw plug sub-assembly on adapter. Solder braid to shell through solder holes. Use enough heat to create bond of braid to shell. Solder conductor to contact.



For final assembly, screw coupling ring on plug sub-assembly.

MORE
CO AXIAL
CABLE
CONNECTIONS

SIMPLE RELIABLE GATE-DIP OSCILLATOR

Bob, VK7ZRF

This handy piece of test equipment is an adaptation of a circuit presented some time back in "Ham Radio".

The coil information is modified to suit readily available former i.e. $\frac{5}{8}$ " electrical conduit cut into lengths of $1\frac{3}{4}$ " approx and araldited to old 7 pin plug units (valve type) as an old computer unit from Hobart some years back.

The modified capacitor is of the type purchased by the branch from the Department of Transport.

The F.E.T. used in my original was an NF500 but other types may be more suitable at higher frequencies but the type should not prove critical. The meter was the small recorder type stocked by the N.B. equipment store.

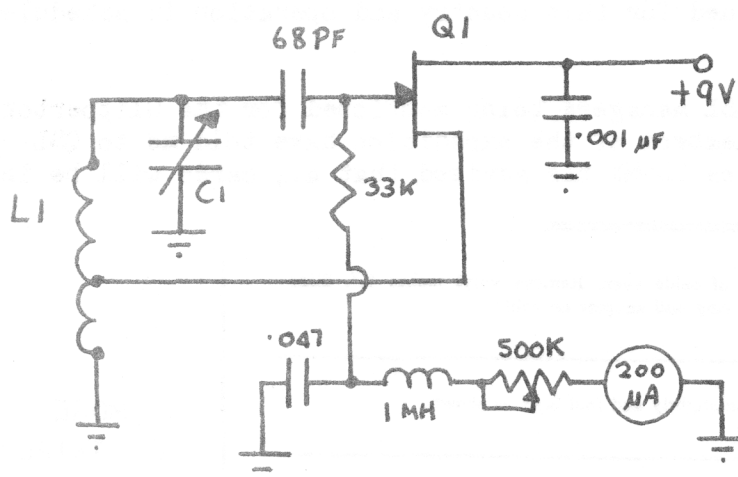
In this model the pot was found unnecessary as at low frequencies gate current gave almost F.S.D. dropping off to less than half scale at the top end.

A small piece of circuit board can be used to mount the components by scribing heavily two crossed lines thus making four isolated pads which can then be mounted adjacent to the socket and capacitor.

As the current drain is low a small 9V battery is ample and any friend with access to a frequency counter could help out with calibration.

73's Bob.

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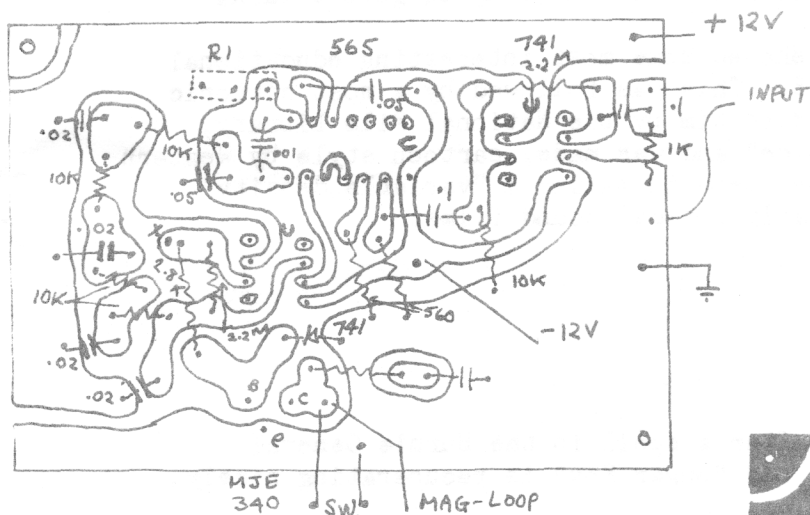


- L1 Former $\frac{5}{8}$ " Plastic Conduit.
 2.8-6Mhz 80T. Tap 10 33swg
 6-13 Mhz 32T Tap 5 33swg
 13-30 Mhz 14 $\frac{3}{4}$ T Tap 2 $\frac{1}{4}$ 26swg
 30-80 Mhz 5 $\frac{1}{4}$ T Tap 1 $\frac{1}{4}$ 22swg
 60-150 Mhz 2 $\frac{3}{8}$ Loop Tap $\frac{1}{2}$ Way 18swg
 80-240 Mhz Strap $\frac{3}{4}$ x $\frac{7}{8}$ long Tap $\frac{1}{2}$ way
 C 1. Eddystone air variable (equip. store special) cut down to 7 fixed & 7 moving plates. 100 PF.
 Q1. NF500, Mpf102, 2N3619 etc.

(IF ANYONE MAKES UP A SMALL PCB FOR THIS PROJECT WE WILL)
 (USE IT IN THIS SPACE NEXT ISSUE THANKS)

MARCH PPL DEMODULATOR

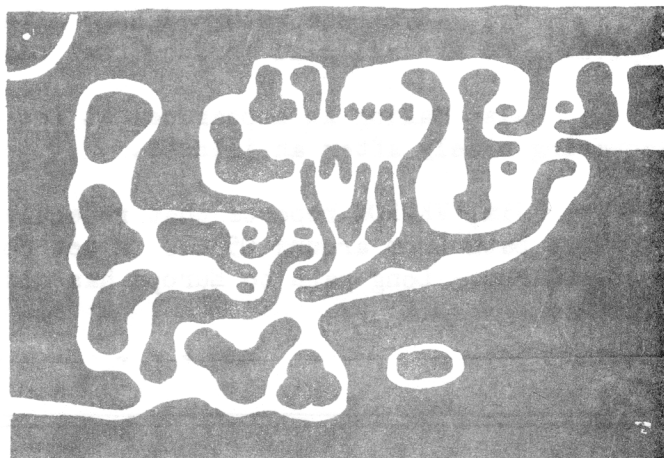
Ed, VK7HE has provided details of a suitable printed circuit board layout for the PPL demod - Many thanks, Ed.



Vital Statistics..MJE 340

Ic 500mA
Veb 3V
Vceo 300V
hfe 30-240
equiv. types 2N5655, 2N5656

COPPER SIDE



Full Size

Includes a few minor alterations
by Bob..VK7ZRF.

NORTH WEST NOTES

By Jim, VK7NOW

It was pleasing to see a near record attendance of 39 at the recent monthly meeting, this included several very interested "CB-ers", all studying for their novitiate.

At the meeting it was agreed that the APRIL Handbooks would only be sold to financial members.

Visitors included Peter Fudge ex VK3ZFP. Peter has now settled in Ulverstone and is awaiting a change of call sign. Athol Manning, VK7LR also attended the meeting after a long absence, and brought a large amount of equipment for the Junk Sale.

The Junk Sale was held after General Business. The many items were capably auctioned by Graham, VK7ZAQ - So much so that one member complained that he might take the matter up with the CONSUMER'S PROTECTION, because after paying 50¢ for a good TV chassis, found it had no tube!!!

NORTH WEST NOTES (cont)

By Jim, VK7NOW

Please note the forthcoming activities: - Next month : Bob Cropper VK7BY will give a talk on "Speech Processing" and "SSB". On Tuesday, June 13th, Mr. Ray Groom, Member of Parliament, will attend the meeting to give a talk.

After the auction, Bob VK7BY showed some most interesting educational films on VHF, UHF and MICROWAVE ANTENNAE. This was followed by a most historic film, supplied by Jim, VK7NOW and loaned to him by the National Film Library, Canberra. It was called "Finding his Voice" and was made, cartoon style by Western Electric in 1928. It showed the various steps in making a "variable density" sound track and was one of their very early optical sound films.

SICK LIST

Syd, VK7SF has returned home after a spell in the Burnie General Hospital. We are all glad to know that old "Sugar Fox" is recuperating nicely.

Also making an appearance at the meeting was Ted Wicks who also is recovering nicely after an illness.

Jim, VK7NOW reports that recently 10 metres has been wide open to Zs via short path from around 0530Z. A net consisting of some VKs and ZS's came up on 28.400 Mhz. Long path to Europe has also been good on 10 and 15 metres.

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GELSTON COMMUNICATIONS

Specialising in Servicing of 2-Way Radio
Car Radio and Cassette Installation and C.B.

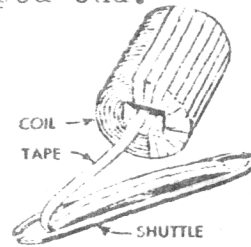
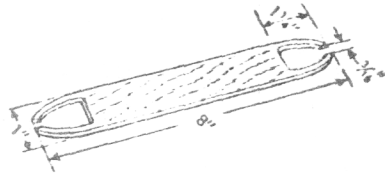
Prop. JOE GELSTON Ph.443882

40 Lavender Grove, LAUNCESTON

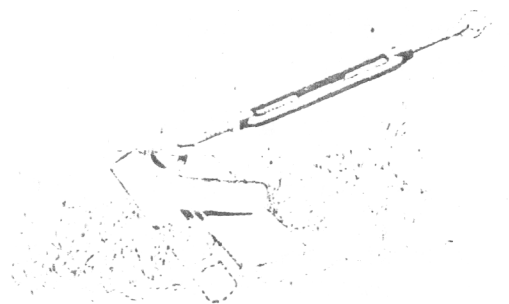
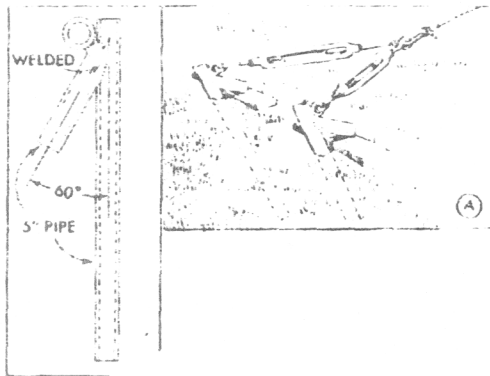
PHONE: 44 3882

HINTS AND KINKS

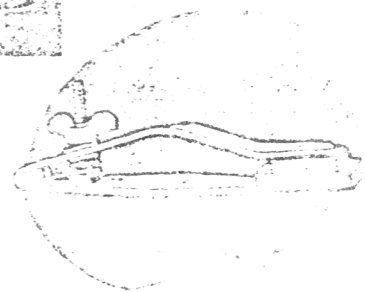
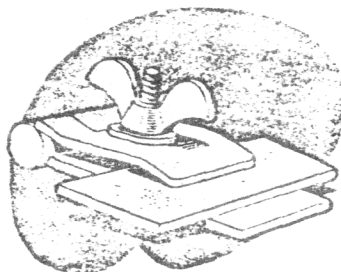
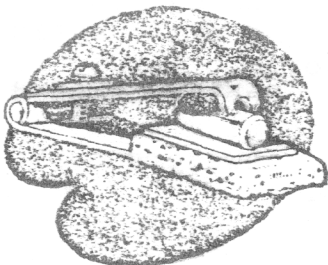
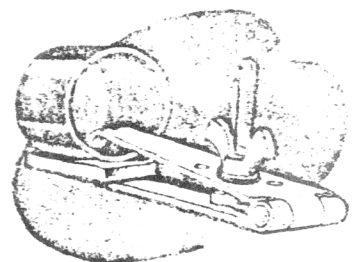
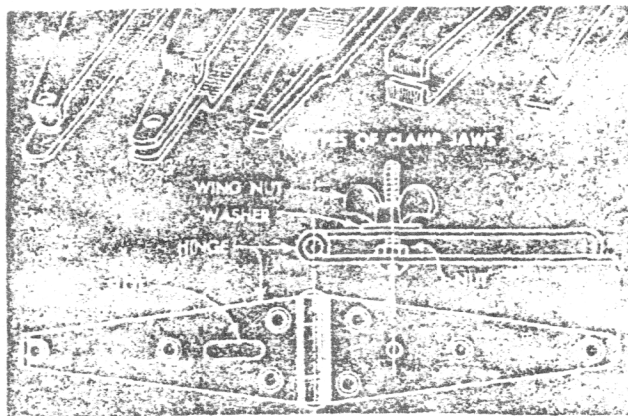
A real timesaver for wrapping transformer and generator coils this wooden shuttle simplifies bringing the tape through the centre of the coil. The shuttle is made approximately to the dimensions given and a slight twist releases a length of tape through the slot in either pincers shaped end.



Self explanatory guying.



Short of clamps? Use your imagination and make your own. Strap hinges make the best clamps. A wing nut, washer and roofing bolt provide clamping pressure. A small coil spring placed over the bolt between the leaves of the hinge will provide the clamp with self-opening jaws.



WHO OWNS THE RJX-1011

There are five different shacks, each with a door of a different colour and inhabited by hams of different interests, owning different gear and antennas. Each ham drinks a different brew.

The VHFer lives in the shack with the red door.

The CW fanatic owns a Kenwood TS 820.

Coffee is drunk at the shack with the green door.

The DXer drinks tea.

The shack with the green door is on the right of the shack with the ivory door.

The yagi owner has a Yaesu FT 101E.

The trap dipole belongs to the owner of the shack with the yellow door.

Milk is drunk at the middle shack.

The Award Hunter lives in the first shack.

The ham who owns the rhombis lives in the shack next to the ham who owns the Drake.

The trap dipole belongs to the ham next door to the shack where the Heathkit is owned.

The inverted "V" owner drinks orange juice.

The RTTY enthusiast owns a trap vertical.

The Award Hunter lives next door to the shack with the blue door.

WHO DRINKS WATER AND OWNS THE RJX 1011????????????????

.....

COMPLETE THE FOLLOWING

S,S,M,T,W,T,F

O,T,T,F,F,S,S,E

N,E,S,W

S,A,W,F

W,I,A,T,D,N,B,

O,A,S

Send answers to RJX
Contest, Secretary
Northern Branch, PO Box
1010 LAUNCESTON 7250
or bring to next meeting.
First correct answer to
the two problems opened
at the meeting will receive
a set of jewelers screw-
drivers.

RTTY RTTY RTTY RTTY RTTY RTTY RTTY RTTY RTTY RTTY RTTY RTTY RTTY

TELEPRINTER EQUIPMENT SPEED CONTROL DATA....

THE FOLLOWING DATA SHOULD ASSIST IN OVERCOMING THE OFTEN FRUSTRATING TASK OF GETTING A PRINTER "ON SPEED". THIS DATA ONLY RELATES TO GOVERNED MOTORS. THESE MAY BE EITHER AC OR DC IN EITHER SERIES OR SHUNT GOVERNED TYPES. THE PARTICULAR MACHINE MUST OF COURSE BE FITTED WITH THE CORRECT GEARS FOR THE MOTOR TYPE PROVIDED. THIS CAN BE CONFIRMED BY CHECKING THE MANUAL.

ASSUMING THAT THE MOTOR AND GEAR SET DO MATCH, IT IS A SIMPLE MATTER TO PAINT THE CORRECT NUMBER OF SEGMENTS ON THE GOVERNOR RING SO THAT A STROBOSCOPE CAN BE USED TO CHECK THE MOTOR SPEED. AN EASIER METHOD IS TO MARK THE SEGMENTS ONTO A LENGTH OF WHITE STICKING PLASTER AND THEN FASTEN THIS TO THE GOVERNOR RING.

THE FOLLOWING FORMULA IS USED TO DETERMINE THE NUMBER OF SEGMENTS.....

$$\begin{array}{ccccccc} N & = & F & X & 120 \\ & & & & \hline & & & & S \end{array}$$

WHERE N NUMBER OF SEGMENTS INTO WHICH CIRCUMFERENCE OF GOVERNOR
SHOULD BE DIVIDED.

F FREQUENCY OF FORK OR STROBING SOURCE.

S SPEED OF MOTOR IN R. P. M.

AS MODEL 15 TELETYPE AND CREED 7B MACHINES ARE THE MORE COMMON TYPES ONLY THE DATA FOR THESE IS LISTED.. OTHERS ON REQUEST.

OV

CREED MODEL 7B 8 7TR 6S

50 BAUDS--USING 87.6 VPS TUNING FORK..MOTOR SPEED 3000 RPM..
REVS PER BAUD 60..GOVERNOR SEGMENTS 7 WHITE 7 BLACK..SEGMENT SIZE
25.71 DEGREES.

50 BAUDS--USING NEON FLASHER ON 50 CYCLES OR 125 CYCLE TUNING FORK.
MOTOR SPEED 3000 RPM..REVS PER BAUD 60..GOVERNOR SEGMENTS 10 WHITE
10 BLACK..SEGMENT SIZE 18 DEGREES.

45.45 BAUDS--USING NEON FLASHER ON 50 CYCLES OR 125 CYCLE TUNING
FORK..MOTOR SPEED 2727 RPM..REVS PER BAUD 60..GOVERNOR SEGMENTS
11 WHITE 11 BLACK..SEGMENT SIZE 16.36 DEGREES.

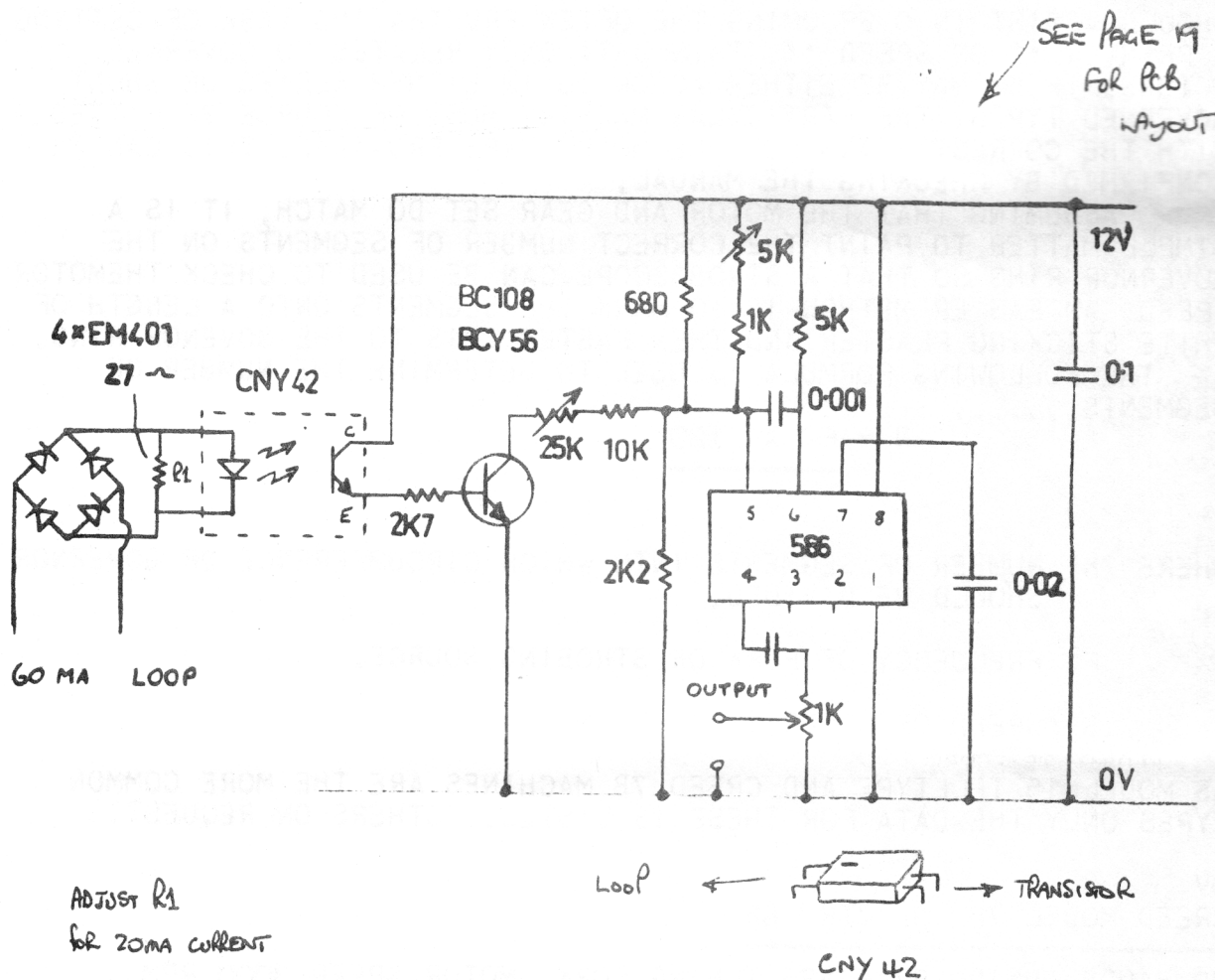
TELETYPE MODEL 14 15 19

50 BAUDS--USING 96.19 VPS FORK..MOTOR SPEED 2102.4 RPM (NOMINAL
2100 MOTOR)..REVS PER BAUD 46.2..GOVERNOR SEGMENTS 10 WHITE 10
BLACK..

45.45 BAUDS--USING 87.6 VPS FORK..MOTOR SPEED 2308.56 RPM
(NOMINAL 2100 MOTOR)..REVS PER BAUD 46.2..GOVERNOR SEGMENTS 10
WHITE 10 BLACK.

AFSK Keyer

Herewith the layout for a very simple and economical PLL keyer. Malcolm, VK7ZMM has added the transistor and opto isolator which has improved it no end.



RTTY..17th MAY..Teletype night at the clubroom..Come along for discussion on loop supplies How to maintain your machine, and any other questions you may think of. Peter Ackerley of the PMG will be along. Bring your machine and get it on the correct speed. We really look forward to a good turnout. Please bring along a plate of goodies to go with the tea or coffee..REMEMBER 17th MAY.

NEXT MONTH ON RTTY.....

LOOP SUPPLIES.. CONSTANT CURRENT VARIETY. SO LOOK FOR AN EXTRA MJE 340 FOR THIS PURPOSE..ALSO A LITTLE ON UARTS FOR SPEED CONVERSION AND REGENERATION PURPOSES. IF YOU HAVE ANY PARTICULAR REQUIREMENTS FOR RTTY ARTICLES THEN LET US KNOW.

NORTHERN BRANCH YEARLY ACCOUNT

SALES		\$4,655.40
LESS COST OF SALES		
OPENING STOCK	2,007.44	
PLUS PURCHASES	4,935.78	
PLUS FREIGHT & CARTAGE IN	23.83	
LESS STOCK ON HAND 23/2/78	2,140.14	
COST OF GOODS SOLD		4,826.91
GROSS LOSS		171.51
PLUS OTHER INCOME		
SUBS	153.00	
DIV. REFUNDS	46.50	
ADVERTISING INCOME	90.00	
Q.R.M.	58.00	
SUPPER DONATIONS	18.68	
INTEREST	39.39	<u>405.57</u>
LESS EXPENSES		
W.I.A. FEDERAL	34.00	
Q.R.M.	100.00	
LICENSE FEES	48.00	
PETTY CASH EXPENSES	81.04	
(PLUS PETTY CASH EXP. NOT REIMBURSED	3.40	
CHEQUE BOOKS	3.20	
Q.S.L. BUREAU	11.36	
STATIONERY	36.80	
FLORAL TRIBUTES	27.00	
STATE LIBRARY	1.15	<u>345.95</u>
NET LOSS		111.89

BALANCE SHEET AS AT 28/2/78LIABILITIES

ACCUMULATED FUNDS	3,407.55
LESS	
NET LOSS	111.89
	<u>\$3,295.66</u>

ASSETS

STOCK ON HAND 23/2/78	2,140.14
L.B.S.	718.32
CASH FLOAT	20.00
PETTY CASH	7.00
ADVANCE TO CLUBROOM	410.20
ACCOUNT (TO BE REFUNDED)	
	<u>\$3,295.66</u>

CLUBROOM ACCOUNT
INVESTMENT ACCOUNT

BALANCE AS AT 28/2/78

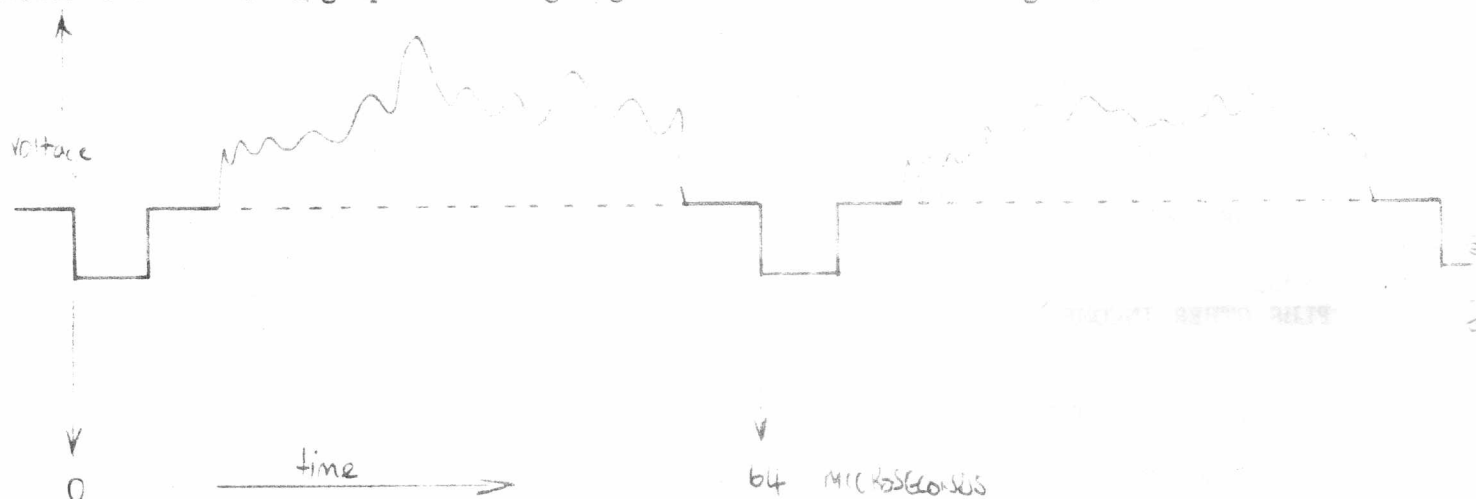
950.33
1,533.75
\$2,484.08

SUBJECT TO AUDIT.

The Television System-- Part 2

Malcolm VK7ZMM

Let us examine the appearance of a TV signal with respect to time. In other words let us draw a graph of voltage against time for a video signal.



The first thing that one could say about this graph is that it does not look like anything. Well it's not meant to. You will remember that a TV signal is made up of 625 lines. Well this is two of those lines. If you examine a black and white TV closely you can see the line structure of the picture.

Now let us examine this graph or waveform as we will call it. You may notice the square pulses that extend downwards. These are horizontal sync pulses. After this there is a flat portion which is called the BACKPORCH. Now the information starts. The voltage from here on determines the intensity of the picture. The highest voltage is the highest intensity or brightest scan of that line. The lowest point that voltage may reach in this part of the waveform is represented by the dotted line and is called REFERENCE BLACK. Voltage between the max and min are shades of grey. Now after this video information finishes there is another short flat section called the BACKPORCH which finishes off this line of a TV picture.

There is now another sync pulse as before. This pulse is used to reset the oscillator of the television sets back to the lefthand side of the picture to a point just out of view in a normal set. The oscillator then begins another scan of an electron beam which travels from left to right. This beam is used to excite the phosphorous of the TV tube, which emits light. Brightness of the light emitted can be controlled by the intensity of this electron beam, which travels from a gun at the back of the tube. Therefore the voltage of the video signal is used to control this electron beam's intensity, and the intensity of the picture. Thus as the oscillator scans the electron beam from left to right, the electron beam is modulated in intensity by the voltage of the video information.

Now these two lines of information that we have been talking about take 128 μ S (microseconds) or 0.000128 seconds. That means it takes 64 μ S for the completion of one line, or 0.000064 seconds. Not long is it! Now this means that there must be $\frac{1}{0.000064}$ of these lines every second. Out with calculator! What do you get?

A number which may sound familiar if you have had much to do with TV's. It is called line rate and is 15625 lines/second or cycles/second or Hertz. It is the high pitch whistle you may hear from a television set.

LAST MONTH'S BLUES

Page 4....Response to 50 KHz of course!

Page 6...VK7TT is of course Terry Tongs..apologies Terry

Articles for QRM - technical or non technical - : Details for our
Personality Page: crosswords: etc: CLOSING DATE 20TH MAY.

+ + + + +

APRIL PERSONALITY

VK7JU : Maurice George Burleigh, "Chook" for short. First licensed in 1938, almost 41 years ago!!! Maurice is now retired having spent as he puts it, "a life time in the electrical industry". He uses a Uniden 2020 and 2 metre FU mobile to keep in contact with previous workmates and service personnel he met whilst serving 6 years with the RAAF. In between radio contacts Maurice and his wife Leila (Tom for short) enjoy gardening. Maurice would like to hear (non - technical) stories from other members about in and around their "salt mines". So how about it fellows?

+ + + + +

NORTHERN BRANCH EQUIPMENT STORE

Business Hours: 19.30 to 20.30 Tuesdays and Thursdays
and monthly meeting nights, at the
Clubrooms.

There are still some assorted items available from a recent tender purchase. Included are power supplies at \$2.50 each and covers, which make excellent storage trays, at only 10c each.

Books. One hundred titles are available through the equipment store from the Federal Executive Office covering all aspects of amateur radio and related electronics. Lists may be seen in the store - the prices need no comparison!

Major items may be purchased through the store at competitive prices. Please enquire before purchasing rigs etc.

Enquiries and suggestions (polite) should be directed to
Ian Clements on 82-1188 Extension 237 (Bus) or 44-6588 between
6 - 8 p.m.

DONT FORGET..INFO NEEDED FOR OURPERSONALITY PAGE..WITH PHOTO IF
POSSIBLE..FORWARD COMPLETED QUESTIONNAIRE..

WANTED..AN ARTICLE ON A SIMPLE SPEECH PROCESSOR.

S O C I A L F U N C T I O N SLadies' Committee

At a meeting held at the home of Mrs. Annette Emmett on 29/4/78, a Ladies' Committee was tentatively formed to try to help organise social functions for W.I.A. members, their families, and friends. The suggestions below were put forward by those present at the meeting, i.e. Mesdames Grant (convenor), Emmett, Gelston, Hewens and Yeoman.

We would like you to state your first, second and third preference, from this list, for possible future activities within the Branch, and perhaps even, suggest others:

swimming for families at Nowbray swimming centre

theatre parties at Princess Theatre (with supper afterwards)

progressive dinners

film afternoons or evenings

soup and sandwich mornings or afternoons

Halloween party

wine and cheese evenings

family outings to Punchbowl Reserve, Trevallyn Dam, etc.

Bingo or card evenings

sports (basketball, carpet bowls, etc.)

river cruises

cabarets

1.....

2.....

3.....

It would be appreciated if you would lend your full support to this endeavour to improve the social side of Amateur Radio. The response to this "questionnaire" will inform the Committee how much demand there is for functions.

We would also welcome your comments on the frequency of social activities -

1. once every month?

2. " " three months?

3. " " six months?

Please indicate your ideas here too. It is envisaged that any social activity organised shall not clash with normal events such as Radio Conventions, Annual Dinners or Christmas barbecues.

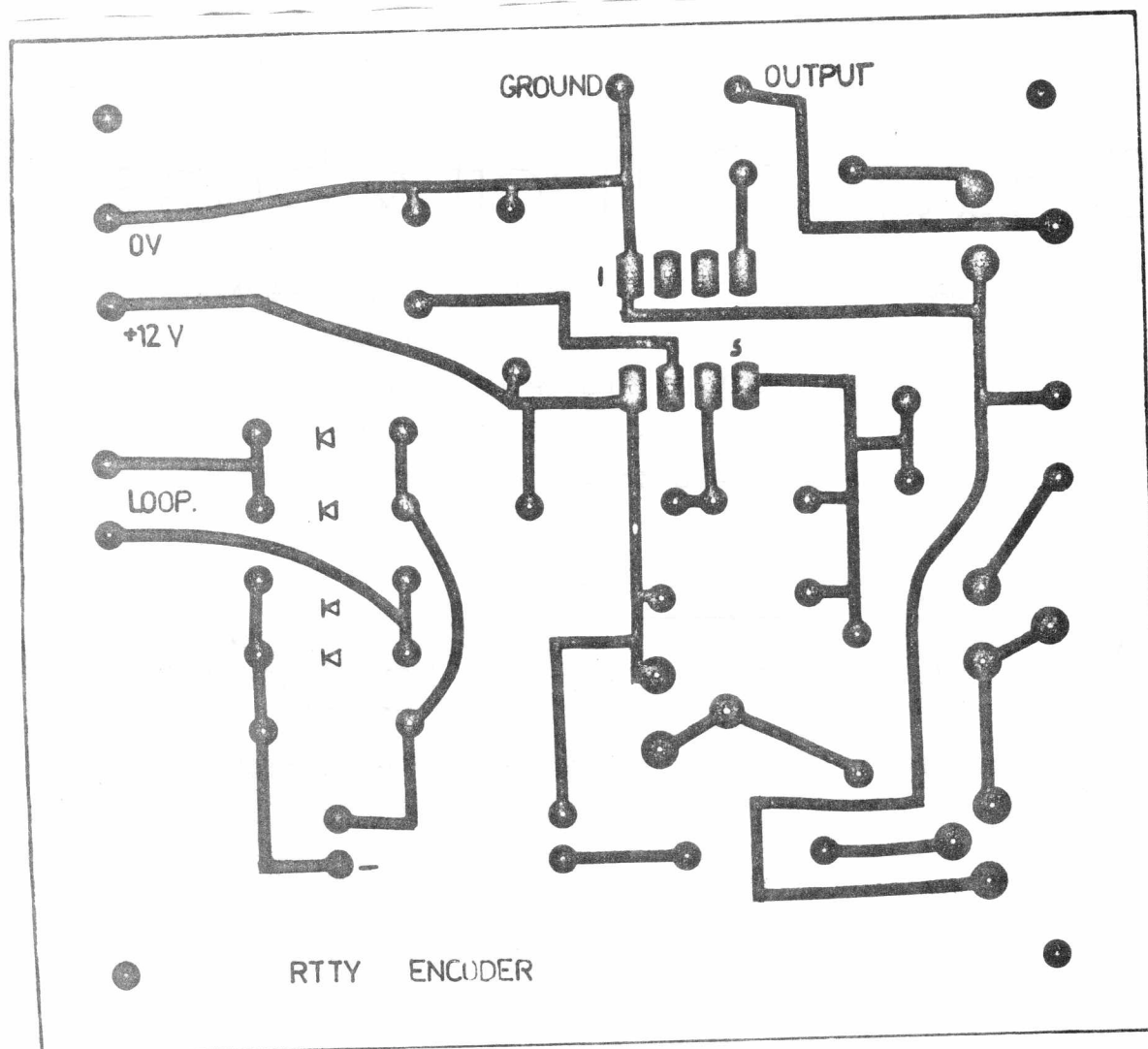
The next meeting of the Ladies Committee will be held on Sunday 21st May at 3 p.m. Venue is 40 Lavender Grove, the home of Mrs. Phyllis Gelston. All ladies interested in contributing any ideas are most welcome to attend.

The questionnaire may be sent or handed to the undersigned.

Diane Yeoman (XYL VK7ZBY)
10 Reid Street,
Kingsmeadows, Launceston.

(telephone 441466)

AFSK keyer ..Double size PCB layout..These board will be available ex store if you cannot be bothered doing " your own thing".
See page 14 for circuit diagram.



~~7NXX~~ 7NXX LET
N

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