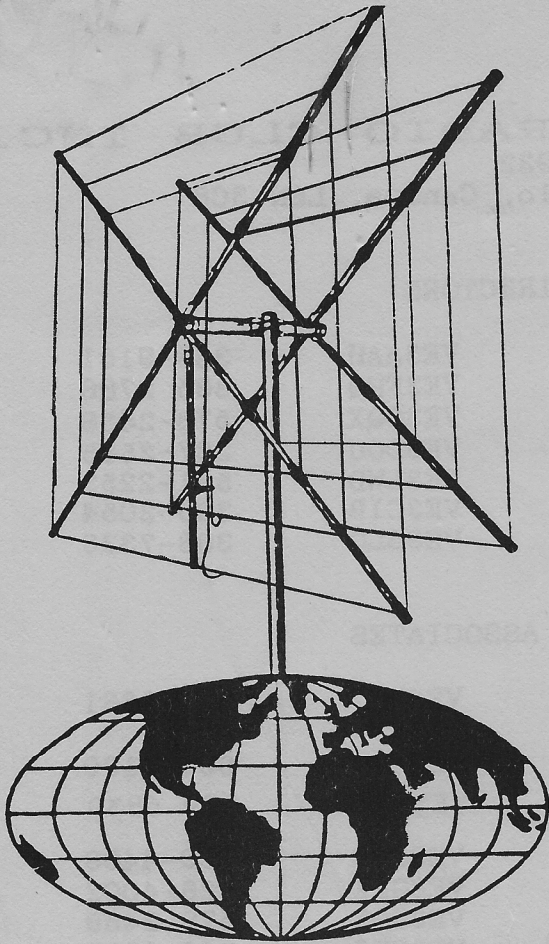


May/87



THE HAMILTON AMATEUR

HAMILTON AMATEUR RADIO CLUB INC.
P.O. BOX 253
HAMILTON, ONTARIO
L8N 3C8



VE3OZY
Rick Danby (M8712)
6 Clinton Street,
Hamilton, ONTARIO,
L8L 3J8.

THE HAMILTON AMATEUR RADIO CLUB INC.

Established 1932

P.O. Box 253, Hamilton, Ontario, Canada. L8N 3C8

1987 OFFICERS & DIRECTORS

PRESIDENT	:	Gordon Barber	VE3AAH	383-9161
PAST PRESIDENT	:	Glenn Gibson	VE3FHQ	385 2786
1st VICE-PRESIDENT	:	Everet Englert	VE3OQX	578-2458
2nd VICE-PRESIDENT	:	Peter Goodson	VE3DOU	387-2585
SECRETARY	:	Wayne Staat	VE3LWD	561-2253
TREASURER	:	Bob Wilson	VE3CIB	383-2054
MEMBERSHIP	:	George Olenick	VE3BLG	383-7338

COMMITTEE CHAIRMEN & ASSOCIATES

AWARDS & CONTESTS	:	Norman Smith	VE3BK	385-5661
CLUB HISTORIAN	:			
CLUB PROPERTY	:	Bill McCaslin	VE3ARX	634-5190
EDITOR	:	Jim Walsh	VE3POP	689 6839
EDUCATION	:			
EMERGENCY SERVICES	:	Jack Heywood	VE3JTR	689-4406
HEALTH & WELFARE	:	Stan Bolibruch	VE3GFE	528-4002
PROGRAMS	:	Everet Englert	VE3OQX	578-2458
PUBLIC SERVICE	:	Fiore Manga	VE3OQG	560-6329
PUBLICITY	:			
REFRESHMENTS	:	John Faber	VE3CNF	692-3805
REPEATER	:	Glenn Simpson	VE3DSP	385-8478
SWAP NET CONTROL	:	Ralph Tufts	VE3BYM	388-6146
TECHNICAL	:	Mark Gibson	VE3MWH	389-4308
TECHNICAL	:	Paul Fleck	VE3HTF	383-1101
VE3DC LICENCEE	:	Glenn Gibson	VE3FHQ	385-2786
VE3NCF LICENCEE	:	Ed Charlesworth	VE3ZF	634-2520
VE3RCB LICENCEE	:	John Kassay	VE3FDK	385-0422

The Hamilton Amateur Radio Club meets at 8:00 pm on the 3rd Wednesday of each month except July & August. The location is the Nash Auditorium, in the Chedoke Hospital grounds, Hamilton. Non-members & friends are welcome.

Membership fees are \$20.00 per annum with a common renewal date of January 1st. Included is a subscription to the club bulletin. Family memberships are available at \$1.00 for each additional person.

VE3NCF Repeater is owned and operated by The Hamilton Amateur Radio Club. It is located on the Hamilton escarpment and is available for use by any amateur within range. Input is 146.160 MHz Output is 146.760 MHz

The swap net is held on VE3NCF every Tuesday at 8.00 pm except during July & August.

MAY 1987 MEETING
THE HAMILTON AMATEUR CLUB

DATE: Wednesday, May 20, 1987

TIME: 8 O'clock P.M.

PLACE: Mohawk College. NOTE THE CHANGE. Listen on the repeater for the room number.

SPEAKER: Ron Bruch, VE3HFI

TOPIC: Packet radio with demonstration.

THE PRESIDENTS MESSAGE

Hamilton Amateur Radio Club activities involve a tremendous amount of work. Unfortunately it is the same people who do most of it. Some members have held executive offices several times.

In the course of a year events include giving awards, Field Day, Flea Market, Christmas Party, repeater maintenance, club bulletin, Red Cross installation, Salvation Army Collection, marathon race reporting etc.

Field Day will be the next big event June 27 & 28. Paul Fleck VE3HTF will be in charge. In addition to operators, log keepers will be required.

If you have not been involved in Field Day, consider doing so this year. The operating site is quite conveniently located.

The Auditors Report is included in this Bulletin. The miscellaneous item is abit high due to an unpaid 1985 bill in addition to the 1986 amount.

H.A.R.C. 1987 President
Gordon Barber VE3AAH

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Re: MORSE CODE EXAMINATIONS

Advanced Amateur Radio Operators are now permitted to conduct Amateur CW and Advanced Amateur CW tests for the DOC. A team of Advanced Amateurs has been set up in the area for this purpose. Candidates must be tested by three examiners and certified as proficient at the required speed. Tests will be carried out at the Red Cross Radio Room 400 King Street East Hamilton. Prospective applicants may obtain further information and arrange for testing by contacting Bob Wilson VE3CIB (Phone 383-2054) or Norm Smith VE3BK (Phone 385-5661)

John VE3RW Coordinator

The examinations for the Amateur Radio Operators Certificate by other Amateurs is not new. The following local amateurs took their tests from the late Alex Reid whose call was VE2BE. This took place in the 1930s: Frank Edwards VE3ER ex. VE2PI, Dick Bromwich VE3CM ex. VE2HY George Pope VE3BO ex. VE2GZ and Norm Smith VE3BK ex. VE2JN.

Norm VE3BK

THE HAMILTON AMATEUR RADIO CLUB, INC.

VE3RCB

VE3DC

VE3DRW

VE3MBR



P.O. Box 253
Main Post Office
Hamilton, Ont.
L8N 3C8

FINANCIAL STATEMENT

Carried forward from 1985 \$2,099.03

RECEIPTS:

Income from membership dues	\$2,467.00
Income from sale of equipment	549.26
Income from bulletin advertising	45.00
Income from flea market	2,200.00
Overpayment to Red Cross Station	39.20
Refund of overpayment to repeater	24.29
Bank Credit Memo	<u>1.00</u>

TOTAL RECEIPTS 5,325.75

TOTAL \$7,424.78

DISBURSEMENTS:

Bulletins (printing and postage)	\$1,461.40
Rent for repeater site	150.00
Repeater Licences; VE3NCF, VE3DC, VE3RCB	60.00
Meeting expenses - coffee donuts, etc.	203.98
Pcst Office Box (club address)	25.44
Advance to Membership Chairman	100.00
Miscellaneous Items	754.62
Field Day	118.07
Bank Charges	23.71
VE3NCF Repeater -maintenance and capital costs	372.84
Ccst of VE3RCB (Red Cross Station)	1,345.12
Flea market expenses	<u>800.00</u>

TOTAL DISBURSEMENTS \$5,415.18

BALANCE ON HAND \$2,009.60

Bank Account Balance as of January 9, 1987 \$2,009.60

Auditor's Report - March 14, 1978

All deposit slips, bank statements and account books have been compared and all monies accounted for. Bernard Granby, VE3EKY

BUILDERS CORNER
by VE3ITY BORIS
ex VP2LB

Thanks for all the nice thoughts guys; pity no one could find enough time to put their thoughts on paper. Thats right - I received no written feedback on what I've written so far - but am sure all of you have read and even enjoyed my submissions to date. (You didn't?. Shame on you!!).

This month I'd like to make a few observations about S.W.R. and suggestions for a handy instrument. First S.W.R.

There is nothing magical, exotic, or sophisticated about ratios. In comparing things using numbers a ratio is simply an expression of the relationship between two numbers. Speaking about ratios and using ratios for comparison does NOT automatically make one smart, intelligent, a genius or anything. In Ham Radio, probably the most abused and maligned ratio is the S.W.R.. Most unenlightened Hams jump to conclusions and continue to believe that the ONLY thing that matters in transmitting a signal is low S.W.R. - WRONG!!!!!!!!!!!!!! I now refer you to a very good article, by an authority on the subject. This article appeared in 73 Magazine in February 1985 entitled, "SWR A Modern Myth?". If you want to learn something about this subject (have an open mind, forget the "old wives tales") then read that article. ALL OF IT. Let me quote a bit then I'll be on to the project. "1) The performance of an antenna is an exact science and not a hit or miss situation. 2) Performance is designed and not experimented into the system as a whole. This includes the ground system, transmission feed system, and the antenna radiator proper. The efficiency and total performance are exactly predictable even before a signal is sent down the line." Read it and be enlightened. The fact that one works Australia or any other DX is no criterion by which to judge any antenna system. The number of variables over which we have NO control is mind boggling. The moral to the story (if you want to think of it as such) is DON'T JUMP TO CONCLUSIONS!!!!!!!!!! If you don't want to think of it as a moral, think of it as one of Murphy's laws. The 1986 Handbook in Chapter 16 gives all the explanations on matching every Ham should know and understand. O.K. so much for the preaching. Now to the project.

For many years I've used a Heathkit "grid" dip meter for building and experimenting. Its a very useful piece of test gear that's easy to construct. In the 1986 Handbook a FET dip meter is described which should fill the needs of most Hams. Printed circuit boards are available for this project from B-C-D ELECTRONICS (thats me) for a measly \$1.40. Cases are available from Electrosonic in Toronto, suitable ones are the 1411K \$2.99 and 1411N \$3.24 approx. For those who do not have a copy of the Handbook (double shame) I've included a copy of the schematic and parts overlay.

There's not much to this project, and the finished product could be very useful. Instead of using the RCA fet. 40673 one could use the AR501 which is a direct equivalent and is cheaper. Try Parts Galore in Toronto at Queen and Beverly streets. Go to the back of the store up the stairs - the inner sanctum - there you will find many AR501's in a bin on the northern wall. Make sure the ones you buy are AR501's. So that's it for now, the schematic etc. is overleaf.



THE SWAP SHOP



SWAP NET CONTROL: RALPH TUFTS VE3BYM
 TUESDAYS AT 8:00 PM LOCAL TIME (EXCEPT JULY & AUGUST)
 ON VE3NCF 146.160/146.760 MHZ

- VE3CIB - Bob - 383-2054 Hamilton.
 SB 102 xcvr c/w SB600, SB650, #638 Electrovoice mike & mans. \$ 400.00
 2- 6" TV sets 12 volts., one has uhf and the other has fm. each 30.00
- VE3CHM - Paul 579-3057 Kitchner.
 Swan watt meter - \$40.00 - SWR/PWR. meter #HM2102. - 40.00
 MFJ 941D Antenna Tuner- \$125.00 - CDE #AR44 Antenna rotor. 50.00
 SX190 rcvr.- \$150.00 - Kantronics KPC2 packet radio 1 month old. 250.00
 Heathkit 303,401, SB600, new lmo, spare tubes & manuals. 250.00
- VE3OCQ - Bob - 549-6125 Hamilton.
 DR 160 rcvr. 5 bands spkr. , 110 volts a.c. 12 volts d.c. 125.00
- SWL - Bob - 560-9328 SToney Creek
 Radio Shack PRO 2002 scanner 60 chs. with manual.- 350.00
- VE3MMB - Harvey 945-5655 Grimsby.
 RS PRO 2021 scanner.- \$250.-300.00- IH6 DXX will take down neg.
- VE3OIH - DON- 688-0465 St. Catharines.
 FT208R handheld c/w spkr. mike extra bat. pac, 12 V. Charger. \$325.00
 CEC 235 Micro dialer programable touch tone mike 50.00
 Icom 255A 2 mtr. xcvr 5 memories dual vfo 1 and 25 watts 275.00
 Commodore 1541 disc drive 300.00
- VE3DUF - Bob - 637-6427 Burlington.
 Radio Shack 232 interface has selector serial interface capab. 75.00
- VE3OQG - Firoie - 560-6329 Hamilton.
 Cobra 29G TL AM 40 ch. c/w 10' whip. Great for that marine rig. 100.00
- VE3MMH - Bob- 385-4246 Hamilton.
 Radio Shack 23 channel GRS tranceiver. 75.00
- VE3HYN - David- 387-2724 Hamilton.
 Multi writer (computer printer) terminal. 275.00
- KB8AW/ve3- Bill 333-1373 Burlington.
 Kenwood 9130 with touchtone pad mike MC46. neg. 600.00
- VE3NCN - Bert- 1-416-627-0573 West Flamborough.
 Yeasu Landliner Phone Patch. 75.00
- J. A. N. T. S.
- VE3OQG - Fiore- 560-6329 Hamilton- trade 3- sect. 8' tower x5'2"pipe for
 2 meter mag mount. Also wants a desk mike wid lock fer -aesu(4 pin).
- VE3SMF - Stuart- 620-4151 Dundas.-Small crank up tower.
- VE3QU - Mel- 689-4089 waterdown. Pair of 813 sockets. ham radio software app. I plus.
- VE3ATF - Paul- 383-1101 Hamilton.-2-200pf var. caps.
- VE3JIN - Ken - 383-5293 Hamilton- 6HS6 Tube.
- KB8AW/ve3-Bill 333-1373 Burlington- 10 in 80 out 2 mtr amp.
- VE3ZB - John- 336-2531 Burlington. Icom cw filter.

de Ralph VE3BYM.



HAMILTON AMATEUR RADIO CLUB INC.



P.O. BOX 253
 HAMILTON, ONTARIO
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Bulletin 1, CRRL, London, Ontario, 1987 January 18.

1. The following countries have notified the ITU that they forbid radio communications with Amateur Radio stations under their jurisdiction: Angola, Burma, Ethiopia, Ghana, Iraq, Saudi-Arabia, Suriname, Thailand, Zaire. Note that Thailand stations may be contacted with special permission; Suriname is new; and Turkey is not on the list.
- 2: The following countries have third-party traffic agreements with Canada:
Antigua & Barbados, Australia, Bolivia, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Israel, Jamaica, Mexico, Nicaragua, Paraguay, Peru, Trinidad & Tobago, United Kingdom, United States, Uruguay, Venezuela.

Note that United Kingdom agreement applies to certain special events stations only.

- 3: The new address for the CRRL VE1 Incoming QSL Bureau is: Box 51, Saint John, New Brunswick E2L 3X1. Bureau Manager is Andy McLellan, VE1ASJ.
- 4: CRRL Awards Manager Garry Hammond, VE3XN, has also been appointed CARF Awards Manager. Garry now acts as checkpoint for IARU's Worked All Continent Awards, ARRL's Worked All States Awards, CARF's Canadawards, CRRL's Worked All QST Award, and more. Have a question about awards? Contact Garry at 5 McLaren Avenue, Listowel Ontario, N4W 3K1.
- 5: Last fall, Dick Reiber, VE3IBV, organized a special QST QSO Party. The idea was to get all of CRRL's key bulletin stations, those with "QST" in the suffix of their callsigns, on the air at once, and give amateurs an opportunity to make contacts for the Worked All QST Awards. The event was such a success, it is being repeated in the spring. "QST" stations will be on the air on 80-10 metres, CW on April 4 and 5, phone on April 11 and 12. More details later.
- 6: Welcome to VY1QST which recently joined the CRRL family. Trustee of this callsign is Bill Champagne, VY1AU, of Whitehorse, Yukon Territory.
- 7: Here are the geomagnetic field predictions for stations south of 55 degrees North latitude for January 18 - February 3: The geomagnetic field is expected to be UNSETTLED on January 18 and QUIET for the remainder of the prediction period.

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Bulletin 2, CRRL, London, Ontario, Jan 25 '87

- 1: At press time, the law firm working on the Jack Ravenscroft case was still waiting for a transcript of Jack's trial, needed to prepare his appeal. Ralph Cameron, VE3BBM, has released an audited report of the Jack Ravenscroft Susceptibility Fund. As of 1986 September 30, receipts consisting of donations, exchange on foreign currency, and interest, totalled \$63,330.96. Expenses consisting of legal fees, office supplies, and bank charges, totalled \$24,683.59. Excess of receipts over expenses, that is the amount available to finance the appeal, was \$37,647.37.

Calgary is hosting the 1988 Olympic Winter Games. Prior to these games, a cross-Canada Olympic Torch Relay will pass through communities in every part of Canada. Radio amateurs are needed to make this event run smoothly. If you can help, please contact Don Cole, VE3EY, 923 Whitehall Drive N.E Calgary, Alberta T1Y 3G1, Telephone (403) 280-4177.

- 3: Prefix hunters, take note: To mark the 40th Anniversary of IIR, the Technical Institute of Radio, Syrian amateurs will be using the special prefix 6C40 throughout 1987. Award hunters, take note: A special award is being offered for working stations from countries taking part in the Fifth Islamic Summit Conference, being held in Kuwait on January 26-29. Listen especially for 9K2 stations signing /IC5 after their calls. Down under, a special award is being offered for working 12 Perth, Australia stations (9 if one of the stations is VK6CUP) during the America's Cup Yacht Races, now in progress. And here's one you probably missed. TF3RGR (that's for Regan and Gbachev in Reykjavik) operated during the 1986 October superpower summit. Maybe next time.

- 4: ARRL has a new section, West Texas, effective Jan. 1.

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Bulletin 3, CRRL, London, Ontario, February 1 '87.

- 1: Representatives of CRRL and CARF will be in Ottawa this week to meet with a delegation from Japan that will include representatives of JARL, the Japan Amateur Radio League. The visit to Ottawa will also give representatives of CRRL and CARF an opportunity to meet with DOC and discuss Restructuring the Amateur Service, special prefix callsign policy, and access to the 18 and 24 MHz amateur bands.
- 2: In response to CRRL inquiries, DOC had advised that it is considering a proposal to do away with special prefix callsigns for special events. Apparently there is a concern about their legality. DOC also advised that they are arguing against time-consuming pre-publication of regulations that would give access to the 18 and 24 MHz bands. If DOC is successful, Canadian amateurs could be using these bands by the summer of this year.
- 3: CRRL President Tom Atkins, VE3CDM, attended the ARRL Board Meeting held in Hartford, Connecticut, on January 16-17. At that meeting, ARRL unveiled a comprehensive program for recruiting new amateurs, and plans to refurbish WIAW and add a Visitors' Centre and Museum to ARRL Headquarters.
- 4: Families of silent keys in both Canada and the United States have been receiving solicitations from a New Jersey company offering to dispose of the deceased amateur's radio equipment. Many amateurs have written to CRRL to advise that they are offended by these solicitations. CRRL has determined that the solicitations are legal. The best defence, then, is for local amateurs to give the family of a deceased amateur every assistance before such a solicitation arrives.

- 5: Think your repeater coordinator has it too rough? Pity poor Paul Pagel, N6BUV, of 220 MHz Spectrum Management of Southern California. The second week after getting 1000 signatures in support of his group, his post office box was jammed with COD orders for \$20,000 worth of radios, \$1,200 worth of computer boards, and subscriptions to 45 magazines and news papers he didn't order. Paul isn't sure which rival group is trying to get even.

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Bulletin 4, CRRL, London, Ontario 19 February '87

- 1: RABC, the Radio Advisory Board of Canada, will hold a special conference: Spectrum 20/20: a Symposium on Spectrum Usage - Future Direction in Canada. CRRL and CARF will present radio amateurs.

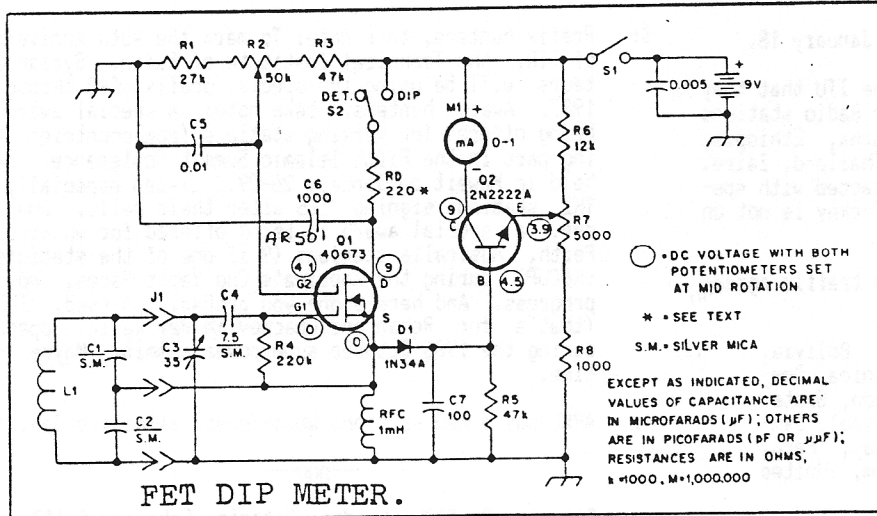


Fig. 42 — Schematic diagram of the dual-gate MOSFET dip meter. All resistors are ω -watt composition type. Capacitors are disc ceramic unless noted otherwise.

- C1, C2 — See Table 1.
- C3 — Variable capacitor, 35 pF, Millen 20035 or equiv.
- D1 — 1N34A or equiv.
- J1 — Socket, Amphenol type S4.
- L1 — See Table 1 for values. All coils wound on Millen 45004 coil forms.
- M1 — Edgewise panel meter, 0-1 mA, Calctro D1-905 or equiv.
- Q1 — Dual-gate MOSFET, RCA 40673.
- Q2 — NPN transistor, 2N2222A.
- R2 — Potentiometer, 50 k Ω .
- R7 — Potentiometer, 5 k Ω .
- S1 — SPST on-off switch mounted on R7.

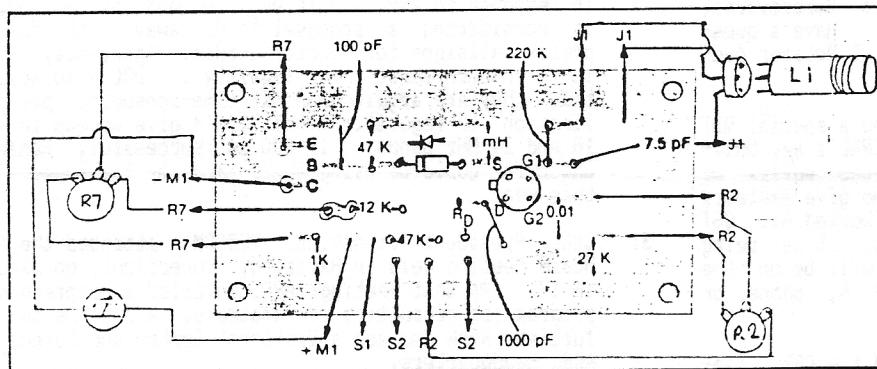


Fig. 43 — Parts-placement guide for the MOSFET dip meter shown from the component side of the board. Gray areas represent an X-ray view of the unetched copper. A full-size etching pattern can be found at the back of this book.

C1, C2, C3 and L1, and may reach 250 MHz or so when L1 is reduced to a hairpin. Higher frequencies may be obtainable by using a UHF D-MOSFET, such as a Signetics SD300, or by placing C3 and L1 in series in a Clapp-oscillator configuration. The circuit is designed to operate from a 12-volt supply, but it also works fine with a 9-volt transistor-radio battery if the drain resistor (R_D) is shorted. In either case the unit draws approximately 20 mA.

Construction

Most of the components that comprise the oscillator and meter-driver circuits are mounted on a circuit board that measures approximately $1\frac{1}{4} \times 2\frac{1}{2}$ inches. A minibox that measures $5\frac{1}{2} \times 3 \times 2\frac{1}{2}$ inches contains the circuit board, variable capacitor, meter controls and four-pin coil socket. Six plug-in coils are used to cover the frequency range from 3.5 to 54 MHz.

The coils are wound on Millen 45004 coil forms to which L brackets are mounted for the dial scale. Winding information is given in Table 1. Epoxy cement holds the aluminum brackets to the forms. The use of six separate coils instead of three or four greatly expands the calibration scales so more accurate frequency measurements may be made. To reduce the fast tuning rate of the variable capacitor, a reduction vernier is used. It was removed from a Japanese vernier dial assembly. An aluminum bracket supports the variable capacitor inside the box. A rectangular piece of thin Plexiglas is used for the dial. A thin line is scribed down the center of the dial and is colored with a permanent-marking felt pen.

Alignment

A general-coverage receiver or another dip meter (calibrated) will be required to align the instrument. Plug in the appropriate coil for the range to be calibrated

Table 1
Coil-Winding Information

All coils are close wound with no. 24 enam. wire.

Freq. Range (MHz)	C1 (pF)	C2 (pF)	L1 (Turns)
3.5 - 5.4	33	10	46
5.0 - 8.3	10	33	28
8.0 - 13.5	10	33	14
13.0 - 21.8	10	33	7
21.0 - 34.9	10	33	4.5
31.0 - 54.0	10	33	2.5

and turn the power switch to the ON position. Advance R7 to approximately one-third scale. If a receiver is being used to calibrate the instrument, tune it to the lowest frequency covered by the particular coil in use. With the coil of the dip meter in close proximity to the receiver antenna terminal and the variable capacitor fully meshed, the dip-meter oscillator should be heard somewhere close to that frequency.

Start by marking this frequency on the paper of the cardboard dial attached to the plate. Next, tune the receiver higher in frequency (approximately 100 kHz on the lower range coils and 1 MHz on the higher frequency ranges) and mark this frequency on the dial. Continue this procedure until the complete range of the particular coil has been marked. Do the same for each of the other coils. If another dip meter is used for the calibration process, it should be placed in the DETECTOR mode and used in a similar fashion as that of the receiver outlined above.

Operating the Dip Meter

The dip meter will check only resonant circuits, since nonresonant circuits or components will not absorb energy at a specific frequency. The circuit may be either lumped or linear (a transmission-line type circuit), provided only that it has enough Q to give sufficient coupling to the dip-meter coil for detectable absorption of RF energy. Generally the coupling is inductive, although at times there may be sufficient capacitive coupling between the meter and a circuit having high RF voltage to permit a reading. For inductive coupling, maximum energy absorption will occur when the meter is coupled to a coil (the same coupling rules that apply to any two coils apply here) in the tuned circuit being checked, or to a high-current point in a linear circuit.

Because of distributed capacitance (and sometimes inductance), most circuits resonant at the lower amateur frequencies will show quasi-linear-type resonances at or close to the VHF region. A VHF dip meter will uncover these, often with beneficial results since such parasitic resonances can cause unwanted responses at harmonics of the intended frequency, or be responsible for parasitic oscillations in amplifiers. Caution must be used in checking transmission lines or antennas — and especially, combinations of antenna and line — because

- 2: As a result of work by CRRL Director Ray Perrin, VE3FN, a resolution by the City of Nepean, asking the Association of Municipalities of Ontario and the Federation of Canadian Municipalities to petition DOC, in order to give municipalities some clear control over the size and placement of antennas, specifically excluded antennas that form part of federally licensed installations. That means amateur installations.
- 3: A Manitoba amateur was recently stopped by the RCMP and asked to produce a licence to justify having amateur radio equipment in his car. Section 9 of the Radio Regulations, Part II, which deals with these matters, is open to various interpretations. For this reason, it may be prudent for amateurs to carry a photocopy of their station licence - and even their operator's licence - when operating mobile.
- 4: Quebec's first HF PBBS is on the air. Jean Serge is offering CRRL, ARRL and IARU bulletins, and store and forward capability, from VE2ED, 3.6338MHz, daily at 1900-2300 EST/EDT.
- 5: On December 27, the Internal Housekeeping Uni(IHU) aboard AMSATOSCAR 10 was successfully reset. Although the satellite is uncommandable, it is operating, at full power. The satellite will continue to deteriorate. Users are advised to use less than 100 watts ERP uplink power, and enjoy the satellite while they can.
- 6: Dick Rutan and Jeana Yeager, who recently flew their Voyager aircraft non-stop around the world, are radio amateurs holding call signs KB6LQR and KB6LQS. No amateur communication was attempted during the record-making flight.

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Bulletin 5 CRRL London, Ontario Feb 15 '87.

- 1: On February 9, Mitch Powell, VE3OT, an Amateur Radio instructor at Fanshawe College in London, Ontario, became the first Canadian amateur to administer DOC Amateur Radio examinations without involvement by DOC. The examination session was part of a DOC pilot project and one of a number of ways that DOC is thinking of conducting Amateur Radio examinations in the future. Options being considered include: a) having DOC regional or district office set the examination and having a volunteer amateur examiner administrate and mark it; b) having volunteer examiners also set examinations; c) drawing 50 multiple-choice theory questions and 25 multiple-choice regulations questions from DOC's recently developed bank of over 800 questions, soon to be in the public domain; d) limiting amateur examiners to those approved by DOC; e) limiting amateur examiners to bona fide Amateur Radio instructors; and f) still allowing DOC regional or district offices to set, administer and mark Amateur Radio examinations where volunteer examiners are not available. What would be the advantages? Examinations could be conducted at times convenient for the candidates, in places where candidates would feel comfortable. DOC could cut its costs, hopefully preventing further increases in our licence fees. When might some form of volunteer examining be implemented? DOC says as early as June 1 of this year.
- 2: On February 4, representatives of CRRL and CARF joined DOC to meet a delegation from Japan that included representatives of Japan's Ministry of Posts and Telecommunications, Japan's Amateur Radio League, Japan's CQ Magazine, and the Trio-Kenwood Corporation. Purpose of the meeting: to discuss implementation of the new reciprocal licensing agreement between Canada and Japan; and to discuss Canadian regulations and policies governing phone patches, and in particular, autotches. These are not allowed in Japan at this time. Auto-patching would be a real challenge in Japan, where the

telephone systems charge by the call. CRRL and CARF also used the meeting to ask the delegation to consider a third-party traffic agreement with Canada. Time will tell...

- 3: Plan to take part in RSGB's Golden Anniversary Commonwealth Contest on March 14-15. Complete rules are available on request.

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Bulletin 7 from CRRL, London, Ontario Mar 1 '87

- 1: Many amateurs have contacted CRRL to ask about packet operation just above 14.1 MHz. Amateur radio bands are not divided into CW and phone sub-bands, as commonly thought. They are divided into FSK and phone subbands; you can operate CW anywhere. This means that U.S. packet operation just above 14.1 MHz is legal because it is the U.S. FSK subband. Canadian packet operation just above 14.1 MHz is usually legal as well, because those using packet there have obtained a special endorsement from DOC. (Those who have not done this can do so easily; the endorsement is given on request.) At the IARU Region 2 General Assembly in Buenos Aires, Argentina, CRRL endorsed the Region 2 band-plan which recommends that packet radio operation take place on 14.07-14.099 MHz. Canadian users, however, say that packet radio and the conventional RTTY found on 14.07 - 14.099 MHz are not compatible, and in any event, they want to be able to communicate with U.S. packet users operating just above 14.01 MHz. DOC is reluctant to force Canadian packet users to move to below 14.01 MHz, partly because they do not want to discourage a new technology, and partly because, in the future, they expect to be moving away from regulations that limit certain modes to certain parts of the amateur bands. So there will have to be compromise and it will have to be developed by the amateur community. The most commonly heard suggestion is for packet users to voluntarily limit their operation to 14.1 - 14.11 MHz. What do you think? Contact your nearest member of the CRRL Board, VE7EWI, VE6ABC, VE3GRO, VE3COM, VE3FN, VE2ZZ or VE1SH, and let him know. Please, and thanks for your help.
- 2: Nominations are now open for the office of CRRL Section Manager, Alberta Section. See the "Canadian Newsfronts" column the 1987 January or February QST for details.
- 3: CRRL has been asked to publicize a DXpedition to Adaman and Nicobar. Listen for VU1RBI operating VU4APR and VU4NRO until 1987 March 31.
- 4: Planning to visit Japan? CRRL has the information you need to apply for a 7J call sign. Write to: CRRL Box 7009, Station E London, Ontario N5Y 4J9.

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Bulletin 8 CRRL, London, Ontario Mar 8 '87

- 1: The appeal in the Jack Ravenscroft case has now been filed. The appeal is based on legal arguments rather than the technical merits of the case. It suggests, among other things; 1) that Jack Ravenscroft's conduct did not amount to actionable nuisance because the problems in the plaintiff's equipment were intermittent, the plaintiff rejected measures which would have reduced or eliminated the problems, and in any event, the problems were clearly the result of RF susceptibility of the plaintiff's equipment; 2) that the lower court decision violated the principle of statutory authority which states that when the Parliament of Canada authorizes an activity, and outlines procedures to be followed should problem arise out of that activity, and no negligence is involved in carrying out that activity, the activity is immune from the law of nuisance; and 3) that the lower court decision, based on the law of nuisance

which is a provincial law, infringed on the Parliament of Canada's exclusive right to regulate radio communications, and was therefore unconstitutional.

- 2: Prefix hunters, take note: To commemorate the 150th Anniversary of Coburg, Ontario, Coburg amateurs may use the special prefix VX3 from June 22 to July 5.
- 3: CRRL has written to the Minister of Communications, supporting a Canadian National Institute for the Blind proposal which would eliminate annual licence fees for blind and visually-impaired Amateur Radio operators.
- 4: Because of rapidly falling solar power available to AMSAT OSCAR 10, AMSAT has asked amateurs not to use this satellite during March and April. It should be available again in May. Two new Soviet Amateur Radio satellites are scheduled to be launched in April. RS-9 and RS-10 are expected to carry transponders operating in the 2-, 10-, and 15-metre bands.
- 5: Work has begun on the 1987 CRRL Canadian Repeater Directory. Please send your up-dates and corrections to CRRL, Box 7009, Station E, London, Ontario N5Y 4J9.

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Bulletin 9 CRRL London, Ontario Mar 15 '87

- 1: DOC has officially informed CRRL and CARF that their Amateur Radio examination questions bank has been stocked with multiple-choice questions for all except the Digital Amateur examination. CRRL and CARF will be given printouts of the questions, and will be consulted before adding or changing questions. DOC is encouraging amateurs to submit changes or new questions through CRRL or CARF. The current practice of scheduling Amateur Radio examinations four times a year will end on June 1. After that, examinations will be scheduled as required, at the discretion of personnel in the DOC District Offices. There will be different examinations in circulation. Examination papers will be reused. DOC also officially informed CRRL and CARF that it is studying the certification of private examiners. A project, designed to determine the best way of doing this, is currently underway in Ontario and Quebec.
- 2: Planning to travel abroad? Canada has reciprocal licensing agreements with the following countries:

Antigua and Barbuda, Australia, Austria, Bahamas, Barbados, Belgium, Bermuda, Botswana, Brazil, Chile, Columbia, Costa Rica, Denmark, Dominica, Dominican Republic, Ecuador, Finland, France, Germany (Federal Republic of), Greece, Grenada, Guatemala, Haiti, Honduras, Iceland, India, Indonesia, Ireland, Israel, Italy, Jamaica, Japan, Luxembourg, Malta, Netherlands, New Zealand, Nicaragua, Norway, Panama, Papua New Guinea, Peru, Phillipines, Poland, Portugal, Saint Lucia, Senegal, Sweden, Switzerland, Trinidad and Tobago, United Kingdom, United States, Venezuela, Yugoslavia.

Need an application form for a reciprocal licence or permit? Contact: CRRL, Box 7009, Station E, London, Ontario N5Y 4J9.

- 3: South of the border, the US FCC has dismissed an ARRL petition calling for early access to the 18 MHz amateur band. And FCC appears ready to turn over the business of issuing call signs to the private sector, once again making special call signs available to US amateurs. ARRL is top contender for this job.

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Bulletin 10 from CRRL, London, Ontario 1987 March 22.

- 1: Congratulations to Bill Gillespie, VE6ABC, who was recently reelected Alberta Section Manager. Bill, who also serves as CRRL Midwest Director, ran unopposed, eliminating the need for a balloted election.
- 2: South of the border, the US FCC has dismissed a petition by the Association of Radio Reading Services asking for 500 kHz of the 220-225 MHz band. The Association represents non-profit organizations that read printed material over the air as a service to blind and print-handicapped persons. The FCC felt that the service, which currently has 152 outlets, was adequately served using subcarriers on FM broadcast transmissions in the 88-108 MHz band.
- 3: Still south of the border, the main threat to the 200-225 MHz band continues. FCC wants to reallocate 220-222 MHz to the US Land Mobile Service. FCC recently granted a 45-day extension of time in which to file comments. New deadline for comments is May 21. One concern, not addressed in FCC's Notice of Proposed Rulemaking, is how the reallocation would affect amateur operation in Canada and Mexico. For this reason, it is not out of order for Canadians to file comments. Full text of the Proposed Rulemaking, and details on how to prepare comments so they will receive proper attention, appear in April QST.

- 4: To commemorate the 75th Anniversary of Sault Ste. Marie, Ontario, amateurs in that city are permitted to use the special prefix CY3 for two weeks, April 5-18.
- 5: Israeli amateurs will soon be on the air with call signs that indicate their class of licence. Novice operators will use 4Z9 calls, Class B operators will continue with 4X4 and 4X6 calls, and Class A operators will change to 4X1 calls.
- 6: Even though its membership campaign is over, CRRL's membership figures keep creeping up. Current membership is just under 5600, making CRRL the most widely-supported Amateur Radio organization in Canada.

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Bulletin 11 CRRL, London, Ontario 1987 March 29

- 1: South of the border, John Thernes, WM4T, has won a precedent-setting battle with the City of Lakeside Park, Kentucky. John will now be permitted to erect a 65-foot tower and will be reimbursed for legal fees incurred since September, 1985, which is when the US FCC issued its limited pre-emption notice, PRB-1. This notice allows US municipalities to regulate antennas and antenna towers as long as such regulations reasonably accommodate Amateur Radio. John's case began before PRB-1 was issued. For this reason, he is still \$US 7,000 out of pocket. US amateurs have been most generous in their support of Jack Ravenscroft. Canadian amateurs may wish to reciprocate this kind of support by sending a cheque to: John Thernes, Box 17721, Lakeside Park, Kentucky 41017.
- 2: The Second Session of the World Administrative Radio Conference (WARC) for Planning of HF Bands Allocated to the Broadcasting Service has been meeting in Geneva during February and March. It now appears that there will be a call for a future WARC having limited authority to reallocate HF spectrum to broadcasting. Such a WARC would pose a threat to amateur allocations at the top end of the 75-metre band and the top two-thirds of the 40-metre band. An IARU observer team is in Geneva, monitoring the situation closely.

- 3: Done Cole, VE6EY, advises that Petro-Canada, sponsor of the Olympic Torch Relay, has decided to provide its own communications for this event. Don thanks amateurs from all across Canada who responded to his request and offered their assistance.
4. Plan to take part in two CRRL "QST" Parties, your chance to make contacts for the coveted "Worked All 'QST' Award". Listen for "QST" stations on CW on April 4-5 on the bottom 50 kHz of the following frequencies at the times indicated: 20m - 1700 UTC, 15m - 1800 UTC, 10m - 1900 UTC, 40m - 2000 UTC, and 80m - 2100 UTC.
Listen for "QST" stations on phone on April 11-12 on the following frequencies at the times indicated: 14.11-14.14 MHz - 1700 UTC, 14.2 MHz up - 1800 UTC, 21.25 MHz up - 1900 UTC, 28.4 MHz up - 2000 UTC, and 3.76 MHz up - 2100 UTC.

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Bulletin 12 CRRL, London, Ontario April 5 '87

- 1: Jack Ravenscroft has been advised that his appeal will not be heard until October. Meanwhile, there are rumours that the plaintiffs in Jack's case have been seeking financial support from manufacturers of consumer electronic equipment. All the more reason to contribute to the Jack Ravenscroft Defence Fund, Box 8873, Ottawa, Ontario K1G 3J2.
- 2: The Canadian Amateur Radio Regulations Book by Mitch Powell, VE3OT, is now available. This workbook contains over 240 questions on regulations and operating procedures which have appeared or are likely to appear on DOC exams, and their answers. For ordering information, contact CRRL, Box 7009, Station E, London, Ontario N5Y 4J9.

Members of Winnipeg Amateur Radio Club are manufacturing attractive CRRL name tags. The standard tag is black lettering on a gold background. Special coloured backgrounds are available for CRRL officials and appointment holders. For ordering information, including special rates for group orders, contact CRRL or John Gowron, VE4ADS, 229 Kisel Bay, Winnipeg, Manitoba R3K 3E7.

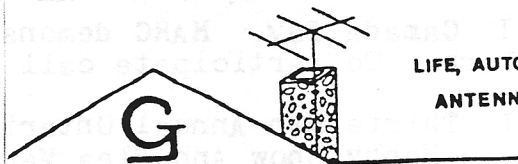
- 4: At press time, launch of the new Soviet satellites, RS-9 and RS-10, was expected soon. RS-10 is now believed to carry a Mode K (15-metres up, 10-metres down) robot. Meanwhile, tests on FO-12's Mode JD store and forward digipeater (2-metres FSK up, 70-centimetres PSK down) are going well. TAPR, Tuscon Amateur Packet Radio, will even be offering a special modem to use on this mode. Finally, AMSAT officials are talking Phase 4 geostationary satellites. One could be up as early as 1991.
- 5: Some notes from all over: Amateurs everywhere will be saddened to learn of the death of Art Collins, W0CXX, founder of Collins Radio Company. Art was 77. There's a new country on 160 metres: Belgium amateurs may now operate on 1830-1860 kHz. Listen for special events station 3G7PAX, operating until April 19 in connection with the Pope's visit to Chile. Papers are needed for the 6th ARRL Amateur Radio Computing Networking Conference in August. Contact ARRL for details. .pa

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Bulletin 13 CRRL, London, Ontario, April 12 '87.

Stewart Beal, VE3MWM, would like to get in touch with amateurs and others involved in receiving high-resolution pictures from GEOS and TIROS-N weather satellites operating on 1.7-1.71 GHz. There is a need to coordinate comments on a DOC Discussion Paper that will propose a second use for this band. Contact Stewart at 416-335-3461.

- 2: The HF Broadcast WARC held in Geneva concluded its work on March 7. It was agreed to maintain the *status quo*, at least until the next HF Broadcast WARC planned for 1992. That means that the present shortage of HF broadcast spectrum will continue. Before the 1992 WARC, attempts will be made to allocate broadcast channels more effectively by using computers. Consideration will be given to creating more channels by moving services like aeronautical mobile off portions of the HF spectrum and onto satellite, and to replacing conventional AM transmissions with SSB. No doubt, a few broadcasters will be checking out the amateur bands as well.
- 3: The agenda for the 1987 National Amateur Radio Symposium, sponsored by CRRL, CARF and Saskatoon Amateur Radio Club, has been set. Workshops will deal with Spectrum Management, Working with DOC, EMI Concerns, Selling Amateur Radio, and the Future of Amateur Radio in Canada. The Symposium will be held in Saskatoon in conjunction with the 1987 Saskatchewan Hamfest on August 1-2.
- 4: RABC, the Radio Advisory Board of Canada, has approved a set of recommendations which, if implemented, would give the Minister of Communications the power to have manufacturers of non-radio electronic equipment repair or replace, without charge, any such equipment that malfunctioned in an RF field. There were no votes against the recommendations, which will now be sent to the Minister, hopefully for her early approval.
- 5: Congratulations to VY1CW and VE1ASJ who, after three years of trying, made the first-ever Yukon-New Brunswick contact on 16 metres.



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Field Day

Paul VE3HTF would like to hear from volunteers to operate CW & phone 10 & 20 meters and CW on 80 meters as well as a power generator crew. Call him at home 383-1101 after May 17. Since membership renewals are 130 at latest report and still growing we should be able to give a good account of ourselves. After all, a good portable emergency communication service is one of the main objectives of Amateur Radio.

Fox Hunt

The Fox Hunt was quite educational so another test is planned for May 24. Listen on the repeater for details.

Dates to remember

May 24 6th Annual S.O.R.T Flea Market & Symposium, Medway High School, Arva ont. just north of London. Opens at 9 am, Symposium at 10 am. Talk in on I47.78/I8 & 449.4/444.4.

June 6 Central Ontario Flea Market, Guelph & Kitchener-Waterloo ARCS. Bingeman Park, 1380 Victoria Street North, Kitchener. It is on Highway 7 East, just east of Conestoga Parkway. Talk in I46.97/I46.37 and I47.36/I47.96 possibly changed to I44.6I/I45.2I.

July I Canada Day. HARC demonstration of Amateur Radio at Gage Park. To participate call Fiore VE30QG at 560-6329.

July II Thirteenth Annual Ontario Hamfest, Burlington Central Arena. A Hobby Show And Flea Market.

August 15 Brantford ARC Flea Market, Woodman Park Community Centre, Brantford.

Aug 19 & 30 HARC days at VE3CNE. To volunteer call Fiore.

October Meeting of HARC is Home Brew Night. Are you working on something?

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The Ontario Swap Net is now on Sunday after Ontars on 3.755 MHz.

The Niagara Peninsula ARC Bulletin reported the discovery that the hole theory is a fraud. Somebody noticed that when smoke escapes from a device, said device ceases to function so the obvious conclusion is that it is the smoke that carries the current. So far no one has discovered how to get the smoke back in where it belongs.