

ZERO BEAT

PUBLISHED BY
THE SOUTHEASTERN
MASSACHUSETTS
AMATEUR RADIO ASSOCIATION
INCORPORATED
54 DONALD STREET
SOUTH DARTMOUTH,
MASSACHUSETTS, 02748

SPRING
~1971~

SOUTHEASTERN MASSACHUSETTS AMATEUR RADIO ASSOCIATION

President: Larry Ferreira, WA1GXV Vice-President: Wayne Kingsley WA1CCM
 Secretary: Ray Poirier, K1VJP Treasurer: Clarence Whitaker, W1LAZ
 Board-of-Directors

Bill Miller, K1IBR

Richard Hay, W1LE

Club Call: W1AEC Meetings held every Thursday night at 7:30 P.M. at
 the clubhouse, 54 Donald St. So. Dartmouth, Mass. 02748

ZERO BEAT: Editor, Bill Miller, P.O. Box 7 So. Dartmouth, Ma. 02748

HEY THERE! WHERE IS ALL THE ACTIVITY?????

Word is out that our man in charge of activity is HOT under the collar, and rightly so we believe. The memberships response to activities slated by the activities committee has been disgraceful. Maybe the activity slated isn't what you want. If so, speak up! If you have an idea, don't keep it a secret, spread the word around- especially to the chairman of the activities committee... BOB WA1MYH He will welcome any and all ideas. Say, Bob, how about a pool table in the clubhouse?

AND THE ANTENNAS CAME TUMBLING DOWN....

That was quite a blow the other day! Up to 80 MPH winds in this area. STRONG winds. Ask Al - WA1KFA - why he now has his antenna on his roof instead of way up in the air. Al wasn't alone, however, as the club was hit too. An 80 meter dipole was taken out by a tree that had seen better days.

KNOCK, KNOCK, WHO'S THERE

WA1VJP found out! Three neighbors with TVI..... and one asked him to step outside. Ask Al for details.

LOOSE STUFF.....

Would you believe that one member spent one hour troubleshooting a rig with bad receiving problems, only to find out it was patched into the dummy load? And what about the wrecked car left out back of the club? Will the stud that uses the back of the clubhouse for parking please level out the ruts in the grass before the lawn needs cutting this spring... You made them, you fix them! We have radio personalities in our club.. W1DIY and WA1KFA were mentioned on the "Open Line" program as originators of TVI.... whatever that is. Word has it that since over a year has passed since the astronomy club started their radio - telescope, that just perhaps the two months to completion time was premature. Bill, K1IBR, returned a book to Geo., W1KHV, that he borrowed 6 years ago... better late than never...eh?.. Al, WA1LEG, recently returned some borrowed equipment too...including a VTVM he didn't even know he borrowed! That's a nice VFO the club has to go with the HW-16...Who bought it? HAAAAAAAAA.

NET INFORMATION AND NEWS

1. N.B. Emergency Net, 50.7 Mc., Mondays, AM, 7 P.M.
2. Club 2 Meter Net, 145.152 Mc., AM, 8 P.M. Tuesdays
3. Club 10 Meter Net, 28.7 Mc., SSB, 8 A.M. Sundays

STAG MOVIES SHOWN AT CLUB

Excellent 8 mm movies of deer as photographed in Maine were shown last Monday night. Bet everyone reads this paragraph

LADDER ON ROOF GONE !!!

John, K1AYH, has removed the ladder from his roof that was a conversation piece. Sorry to see it go John.

BODY BUILDING COURSE OFFERED TO CLUB MEMBERS

Any member that wants to improve his health, is invited to help dig the hole already started in the rear of the club. Plans call for putting a telephone pole in it when deep enough. The pole will be used to secure the ends of the 80 meter dipoles which presently are tied to some bushes.

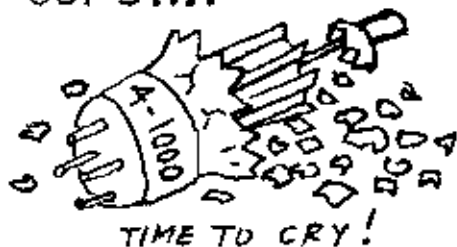
TURN OUT THOSE LIGHTS

Someone has been leaving the lights on when they leave the club. Watch it. Huh?.....

REVISED CONSTITUTION TO BE VOTED UPON

An updated constitution for the club has been prepared by members of the constitution committee. The new revised constitution will be voted upon in its entirety by club members in April. Although the changes are primarily nothing more than editing, some are of importance to all members. Members that have not read the revised constitution are urged to do so in order that the voting will be accomplished in as short a time as possible. The club secretary, Ray, K1VJP, has the master copy which may be reviewed during club meetings.

OOP'S....



MATCH 'EM UP

Below are described some idiosyncrasies of club members. See if you can identify the member...

1. This fellow must be suffering from insomnia as he always has to yawn when on the air.
 2. Only a good listener will answer CQ's that this ham calls. His average transmission length is 20 minutes.
 3. "How's my signal?" is the way this ham greets you. HE'S power happy.
- We trust no one will be offended by the above... if so, tough

AUCTION

March 18
THURSDAY
7:30 P.M.
At the Clubhouse
~ BCNU ~

TVI COMPLAINTS ON THE RISE

It seems that TVI complaints are on the rise again. Evidence to that fact is the recent discussion on "Open Line" and WAINJP's run-in with an irate neighbor. In an effort to better inform the public about the nature of TVI, an article has been sent to the local paper in hopes that it will be published and will aid our efforts to point out that most TVI is caused by poor TV design rather than by hams. Amateur radio operators account for 2% of the interference problem according to a recent survey, yet we get almost 100% of the blame. It is a little known fact that ALL TVI can be prevented if the TV is unplugged! Try it.

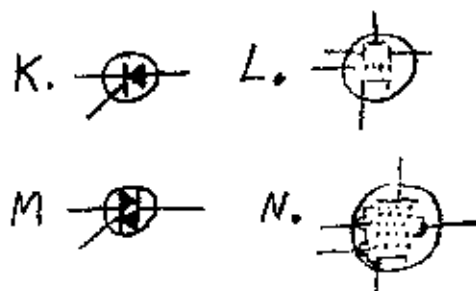
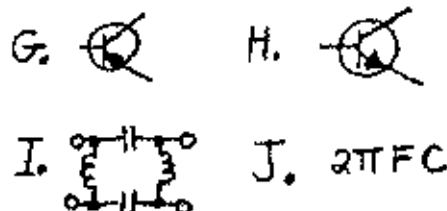
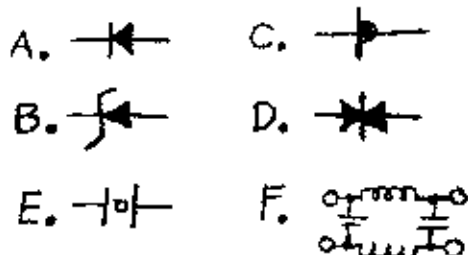
HS-16 IS ON THE AIR!!!

Dick, W1LE, has just about rebuilt the HW-16 in an effort to cure the stubborn intermittent that has plagued the rig lately. He even found a joint without any solder at all! Heres hoping that the rig is fixed for good. The rig has put on more mileage traveling to Dicks QTH then time on the air!

ELECTRONICS QUIZ

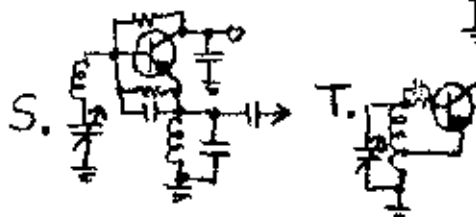
Okay all you brains, here is a chance to exercise your grey matter. Match the numbers with the right letters. Answers on the last page.

1. Triac
2. NPN Transistor
3. Zener diode
4. Hi-Pass filter
5. $X_c =$
6. Crystal
7. $R_t =$
8. Tunnel diode
9. Pentagrid converter
10. Clapp Oscillator



O. $\frac{R_1 R_2}{R_1 + R_2}$ P. $\frac{1}{R_1 R_2 + R_1}$

Q. $\frac{1}{2\pi f C}$ R.

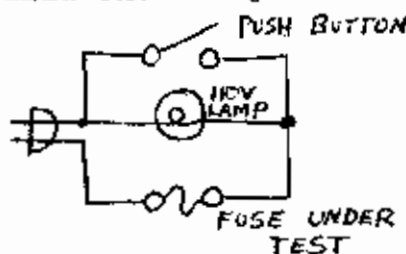


TECHNICAL ITEMS

$I = \frac{E}{R}$ $W = \frac{LI^2}{2}$ $K = \frac{m}{\sqrt{L \cdot C}}$ $P = I^2 R$ $Q = CE$ $P = I \cdot E$

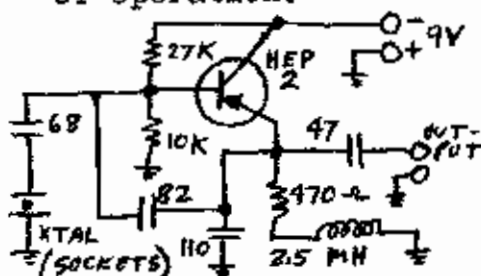
THE LITTLE GEM FUSE TESTER

Here is an item no ham shack should be without. Operation is simple and foolproof. As they say, even a child can test fuses with this unit. The circuit is an old one but reliable and positive in results. To test a fuse, insert it into the fuse clip or holder. The panel lamp should light. Next press the push button. If the fuse WAS good, the light will remain extinguished. Get out your soldering iron and build one today!!!!



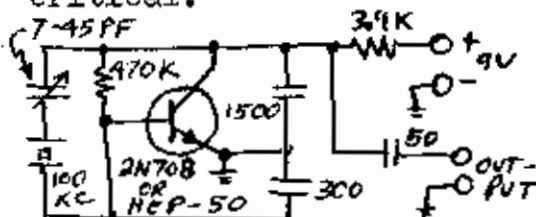
OLD CLUB PROJECT

This is the circuit of the xistor xtal xciter or if you please, the crystal oscillator that was a club project last year. Many members have requested the circuit so here it is. It will oscillate with any xtal in the 3 to 60 Mc. range, with overtones oscillating on their fundamental. HINT: Mount 2 or 3 various types of xtal holders in parallel for ease of operation.



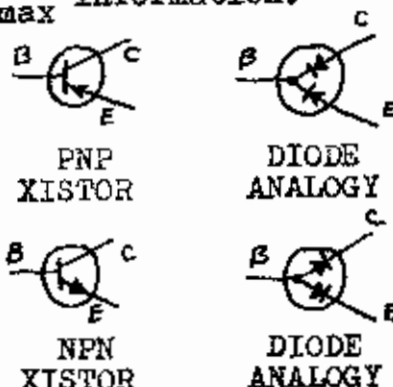
100 Kc. Xtal Calibrator that Uses A Minimum of PARTS

If your junk box has a minimum of stock, this may be the calibrator that you have been waiting for. It is just about the simplest circuit that provides an output that is usable. The capacitor in series with the xtal is used to "zero" in on WWV. Wiring is not critical.



HOLD IT !! DON'T THROW THAT TRANSISTOR AWAY

If you manhandled a xistor and a lead fell off, don't throw it away in disgust. Check to see if the base lead is intact. If it is, you still have a diode left and in some cases a ZENER diode! How about that! Now you can build a field meter or RF detector probe without buying a diode. CAUTION: If you want to use the diode in an application other than as a signal diode, check the Xistors specifications for PIV and I_{max} information.



3.

NEUTRALIZATION: SO WHO NEEDS IT

You may! Just because your HB linear doesn't take off don't say you need not neutralization. And that "HOT" nuvistor preamp you built may not break into osc., but it possibly could be "HOTTER" - if properly neutralized. Proper neutralization will insure that your linear is linear, and in the case of preamps will give you a better noise figure.

If your rig utilizes a bridge type system of neutralization, here is a sure-fire method of neutralizing it. Most single-ended amplifiers use bridge neutralization. First remove plate and screen voltage from the final. Then connect a VTVM with an RF probe to the output where the antenna was. Turn on the rig and adjust the neutralization capacitor for minimum reading on the meter. It should read zero. Reconnect the plate and screen and the job is done.

The same method can be used on preamps using a signal generator to drive it, and the receivers S-meter as the indicator. You can also use a receiver to neutralize your xmitter if it is a low power rig.

