



Franklin Amateur Radio Club Inc NZART Branch 10
Committee

President: Gary Landon ZL1WGL

Vice President: Peter Henderson ZL1PJH

Secretary: Tom McDonald ZL1TO Ph. 09 238 8580

with: Mike Jane ZL1UOM, Ted Doell ZL1BQA, Durlene Griffin ZL1ULK, and Mike Lee ZL1MFL.

Club examiners: Ian ZL1PZ and Tom ZL1TO.

Web page: www.qsl.net/zl1sa/

MEETINGS: The club meets on the third Tuesday each month, in the clubrooms, Stadium Drive Pukekohe, 7.30 pm. Visitors welcome.

VOLUME 29 ISSUE 1

The committee meets on the first Tuesday of each month (excepting January) at 7.30 pm in the clubrooms.

Subscriptions \$20.00, family \$30.00.

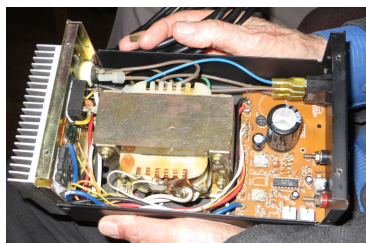
Nets every Sunday at 9.00 am on 3.700 MHz (controller ZL1UOM) and 9.30 am on the 146.900 MHz repeater (controller ZL1PZ). 2 metre frequencies are 145.775 MHz, then 146.625 MHz, and 146.900 simplex if repeaters off air.

Newsletter: Editor Tom ZL1TO tom.mcdonald@xtra.co.nz

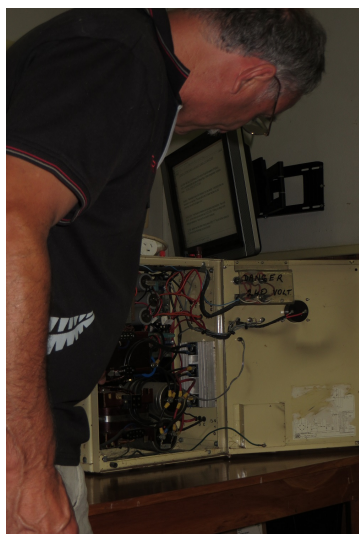
A copy is sent to members and clubs in the Auckland area. Sent free of obligation by e-mail to anyone interested.

Presentation – Linear Power Supplies

At the December general meeting Mike ZL1UOM showed a variety of linear power supplies that he uses.



These linear supplies all have the advantage over switch mode of being less electrically noisy. All have very good ripple filtering. Two disadvantages are their weight and expense due to the heavy transformer, and they need substantial heat sinks to dissipate the surplus voltage that they need in order to perform well under load.



The pictures show:

Top – A typical small supply. Transistors are mounted on the heat sink.

Bottom – A beefy home brew three phase supply.

AREC Communication Exercise, 23 January

We have been advised by Regional Manager Northern AREC that Andy ZL1COP is organizing a Saturday morning practical exercise on January 23.

The exact format depended on how many people are able to take part, so expressions of interest were sought. Rather than limit attendance to members of North Shore AREC this included anyone with an interest in field operations. The invitation went to all AREC members and interested hams (AREC/NZART or not) from the greater Auckland region. Anyone outside Auckland was also welcome to join in if they have the capability.

The general idea is to form teams or individuals who will deploy to locations throughout Auckland at short notice and

Club Notice Board

General meeting, Tuesday 19 January

In addition to the usual business, there will be discussion of preparing equipment and techniques for the AREC exercise on 23 January. Members will be encouraged to volunteer for one of the two exercises at the end of February.

There is no invited speaker, so there may be time for short stories on members recent projects.

The meeting starts at 1930 hours.

AREC communication exercise, 23 January

A message handling exercise, from field stations to a base at North Shore Radio Club and North Shore Civil Defence Headquarters will run through Saturday morning from 0830 hrs. Operations will be carried through a variety of AREC repeaters, VHF and UHF simplex, amateur 80m and 40m, Civil Defence channels and PRS channels.

Franklin has 6 volunteers who will operate from public parks at Grahams Beach, Waiuku, Pukekohe and Omana.

Jock White HF Field Days, 27-28 February

The club will operate from Attewell Road, Puni. To date we have six volunteers.

James Allan Rally, Saturday 28 February

This will be a two stage rally, in the Maramarua Forest. Franklin has four volunteers to date. We may be asked for more, so there is still an opportunity to join the team being organized by David ZL1DK of Papakura Radio Club.

establish a simulated emergency network using whatever communications equipment is available. This may include Amateur VHF/UHF via repeaters/simplex, HF SSB, HF digital, PRS, Civil Defence VHF etc.

In order to avoid the need for people to travel long distances operations will be from Auckland Council public parks.

The messages will include unfamiliar words, acronyms, figures and punctuation. So those participating are encouraged to refresh their prowords and message handling procedures.



Minutes of Franklin Amateur Radio Club (Inc) General Meeting held at the clubhouse 19 Stadium Drive Pukekohe, 15 December 2020.

Vice President Peter ZL1PJH opened the meeting at 1932 hours, welcoming all.

Attendance: ZL1PJH, ZL1TO, ZL1PZ, ZL1UOM, ZL1DW, ZL1LL, ZL1GAC, ZL1BBZ, ZL1BQA, ZL1ULK, ZL1MFL, ZL1TZR, ZL1AMQ, ZL1ERI.

Apology: Gary ZL1WGL

New member Frank ZL1AMQ was welcomed into the club with applause.

Minutes of the 17 November 2020 meeting. Noted that the pole used mobile by Mike ZL1MFL is aluminium (not fibreglass).

The minutes were approved as true and correct.

ZL1TO / ZL1MFL

Correspondence:

Inward - Newsletters as reported in December QUA.

FMG Post December-February.

Correspondence report received. ZL1TO / ZL1PJH

Finance:

Expenditure: Contact Energy \$51.02 paid 3 November. \$51.48 due 4 December and paid at Westpac Pukekohe.

Income: Subscriptions have been received from 8 members.

The cheque for insurance to FMG had been presented.

Work on getting the new bank signatories authorized is continuing. Peter ZL1PJH is next to register with the bank.

The finance report was received. ZL1TO / ZL1BQA

Reports:

AREC: Farmers Christmas Parade in the central city on 29 November as reported in QUA.

Four AREC members attended the regional meeting at Papakura Radio Club on 19 November. Concern was expressed at some of the proposed changes to the administration proposed for the Auckland region. Mike ZL1UOM was not impressed that there appears to be a take over with all sports events being taken off Papakura. The President of North Shore Radio Club is pushing for support for the changes.

Tour de Ranges – The Branch 29 newsletter advertises the date as 9 January. However the Tour de Ranges web site is advertising this event will be 2 October.

James Allan Rally – early warning had been given that the event will be 21 February, but the South Auckland Car Club web site does not yet advertise a date for this event.

The AREC report was received. ZL1TO / ZL1ULK

General Business:

Bob ZL1BBZ spoke about dinner at the Papakura RSA. Bob said that he baled out early on account of the noise. Ian ZL1PZ said that likewise he too had trouble hearing. By pure chance Bob was in the Waiuku Cosmopolitan Club last

Minutes continued.....

Sunday. Bob asked if next time when we are hosts for the end of year radio club function could we give Waiuku a chance? David ZL1DW said it would have been nice if there are a few words of welcome by a speaker.

Jock White Field Days will be on 27 & 28 February 2021. FARC to be stationed at the onion farm on Attewell Road. Volunteers so far are ZL1ULK, ZL1PJH, ZL1TO, ZL1GAC.

Vandalism. Tom ZL1TO asked members to please keep an eye on the clubhouse if they are passing. Coax has been cut.

Frank ZL1AMQ thanked the members who have been giving him assistance establishing his station.

The meeting closed at 2004 hours

NEWSLETTERS FROM
OTHER BRANCHES

66. Barbecue from 6.00 pm on 18 January. AREC activity 23 January.

80. Meeting 13 January to discuss HF Field Day and plan the works programme for 2021. High hopes for sunspot cycle 25. Te Puke Market Day 20 March.

86. Flashback to 1945 with extra traffic through ZLB during a landline outage in Canterbury. MG car club visit and other historic photos.

Te Puke Amateur Radio Club Inc. Branch 53 of NZART 20th Market Day

Saturday 20 March 2021
(GPS Coordinates: 37.49S 176.24E)

Venue open for Vendors from 06.30am.
Sale time 10.00am.

\$20.00 for a 1.8 Table, \$25.00 on the day.
\$12.00 for ½ a Table, \$15.00 on the day.

Overnight Parking for Motorhomes
(If required please advise by phone or email)

Hot Breakfast from 07.30am (\$12.00).
1 Sausage, 2 Rashers Bacon, 2 Eggs,
½ Tomato, 2 Pieces Toast, Tea or Coffee.
Also available Sandwiches, Cakes,
Tea / Coffee, all at reasonable prices.

For further information & Table Booking's, Contact Syd Rowe ZL1LWR Phone (07) 533 1029, Mobile: 0272488664, Email sydrowe@xtra.co.nz Postal Address: 223 State Highway 33, RD 9, Te Puke 3189.

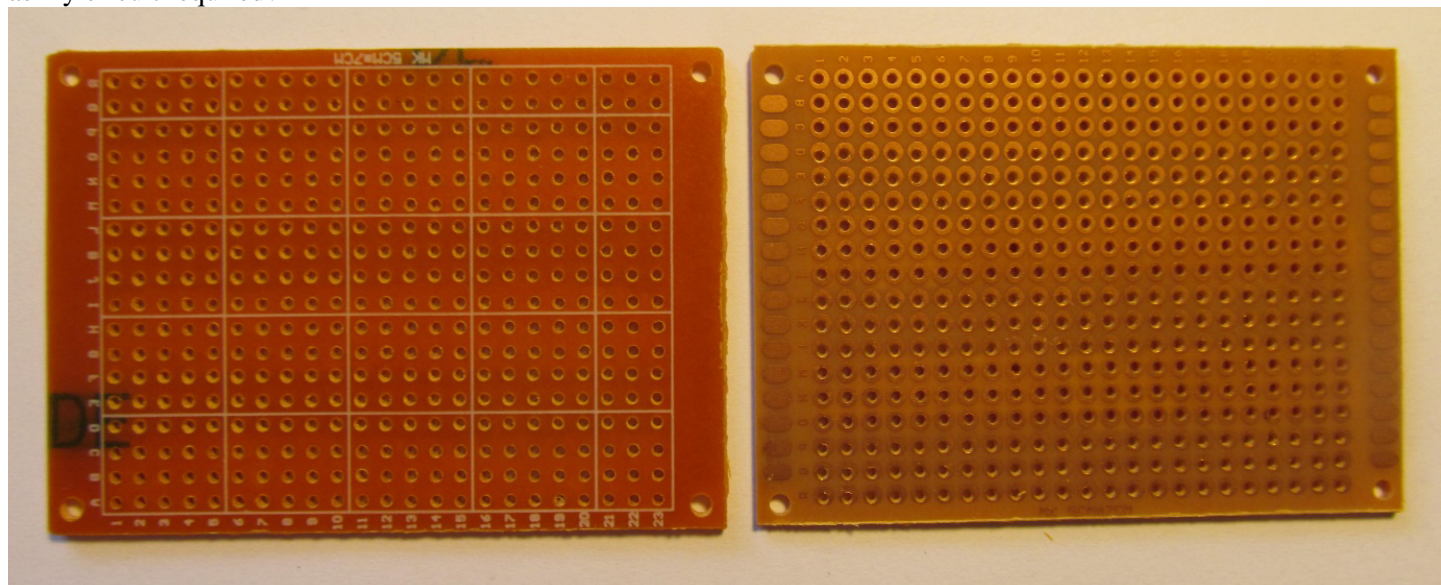
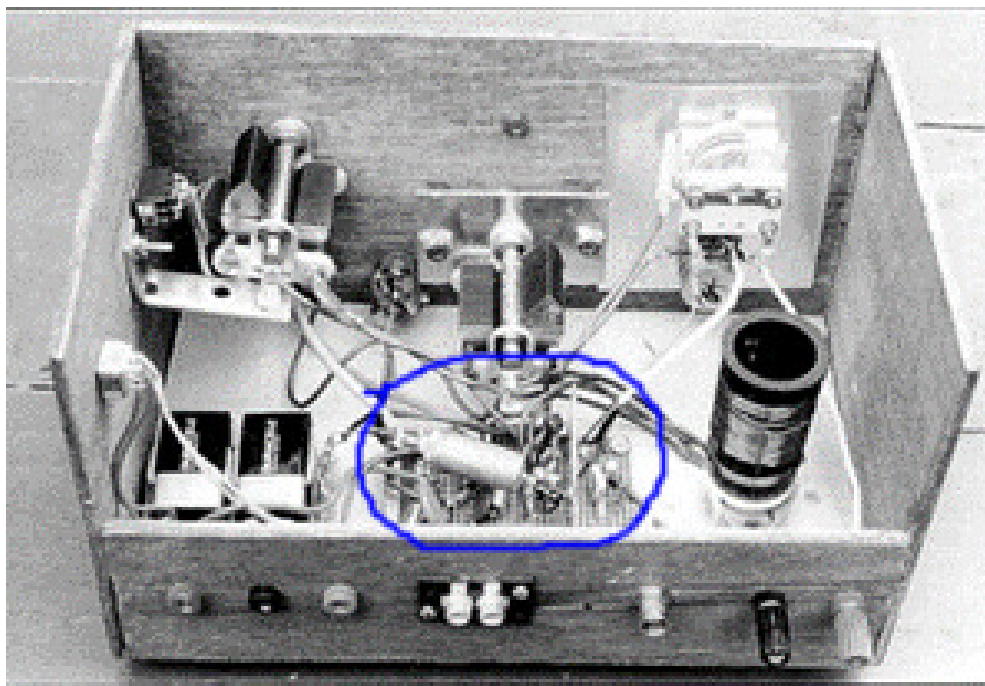
Regeneration Receiver Part 2

Peter Henderson (ZL1PJH)

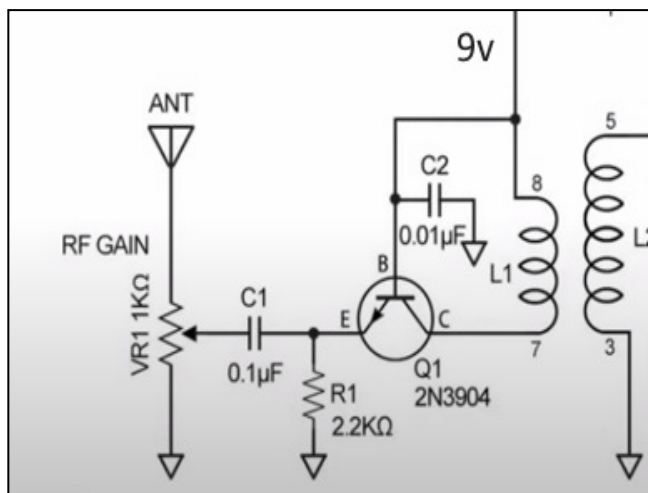
Isn't it true that with any challenge, the more time you spend thinking about how you will overcome it the greater is the satisfaction when you do?

With my regeneration radio, I possessed a circuit that I downloaded from ham websites but I had no idea how I would join the various components. Charles Kitchin, N1TEV, based his circuit on Edwin Armstrong's original regenerative design from the early 20s. Armstrong's design used valve technology whereas Kitchin wanted to update the design to work with transistors. I found Kitchin's update to the concept in the American Radio Relay League website. His photographs in support of his build showed resistors and capacitors soldered to some kind of board that was bolted to the bottom of the case.

So how could I use incorporate this type of board into my regeneration receiver? I purchased a number of boards in which the holes were unconnected to each other. They came with a grid pattern that was 23 holes across and 18 holes down. When I first received them, I imagined that to join two components together I would need to push two or three wires into the one hole and then solder them on the copper side. You can view these boards below. The board to the right is the reverse side of the one of the left. None of the copper points on these boards join to any other point. So how was I to join two or more components together as my circuit required?



YouTube provided the answer. The trick is to strip out copper strands from ordinary appliance power cords. The strands are then 'stretched' until they remain firmly straight and then soldered into position according to the needs of your particular circuit. But to do this, I needed a planned picture of my circuit. Just below, I show a section of my Kitchin's circuit with some of the components I want to join. You can see the first transistor Q1 on the left of my plan and the three components that control the transistor (C1, R1 and C2) are meant to fit in the holes around Q1. There are also connections needed for the inductor L1 which transforms the RF signal across to the rest of the circuit.



The picture below shows how to translate my circuit above into a grid pattern which allows the components to be joined. Some small details are different. My Q1 transistor is now labelled 2N2222 and my inductor connections are labelled L1 and L2 instead of 8 and 7.

You can see the above circuit make its appearance on the first three columns in the grid below. The transistor Q1 appears in column B and the three components sit in rows 10, 11 and 12. This explicit level of planning makes it clear what connects to what. You can clearly establish the top of C1 connects to the emitter of the Q1 transistor. Resistor R1 also connects to the emitter of the Q1 transistor. This grid diagram also makes clear the base of the transistor has two connections – one is to the 8.3 positive rail at the top of the grid, the second is to the negative rail at the bottom of the grid through C2.

So how easy is it to join components on a real board with this level of detail available? The first step is to turn the board upside down. Second, clamp the board with a small vice. This allows you to solder without movement. I then proceed to join points of the circuit to each other in the expectation that I would end up with a completed regen radio circuit.

But what in fact happened was something different. I clamped the board and proceeded to join the buttonhole copper rings according to the grid plan. Almost immediately, a difficulty appeared. The copper rings around each hole came away from the body of the board once I had soldered them. Not every copper ring detached but even one was too many. I experimented with two types of boards with the smallest solder iron I have. Those copper rings just kept detaching! You can see an example of this in the picture lower right, arrowed for your convenience.

