



GATEWAY

**The Official Magazine of the Gippsland
Gate Radio & Electronics Club Inc.**

July 2018



**Thanks for the Memories
ACMA Consultation Paper
Hamfest Updates
And More**

Contents.

- 3 – The not so presidential report
- 4 – Narée Ide - RIP
- 5 – Reg Goddard - RIP
- 7 – Maria Harding – RIP
- 8 – Thanks for the Memories
- 9 – From The Editor – what a week
- 10 – GGREC Hamfest
- 11 – GGREC Hamfest preparation
- 12 – ACMA Consultation Paper
- 13 – International Lighthouse & Lightship Weekend
- 14 – To Pee Or Not To Pee - Infrared Technology vs Naughty Cats
- 17 – Hamfest Update
- 18 – Social Media & On-Air Behaviour Policy
- 19 – Don't Go There
- 20 – More Zaps – The Wrap-Up
- 21 – An Invitation to Stallholders
- 22 – Camcorder Repairs?
- 25 – Arduino & Nixie Tubes, part 3
- 26 – Prac Night – Spectrum Analysers – In Pictures
- 27 – Mid Year Lunch – Pictures
- 28 – Glenn Corrie's Mad Add.
- 30 – Club Information

Note: - club meeting minutes are now on the club website

Event Queue

July:

20th General meeting – Guide hall

August:

3rd Prac Night – Club rooms
4th GGREC Hamfest
11-12th VK - Remembrance Day Contest
17th General meeting – Guide hall
18-19th Lighthouse and Lightship Weekend

The not so presidential report.

I wish to thank everyone who helped me on my short journey as president of the GGREC. I would have like to have continued the journey but unfortunately personal circumstances didn't allow me to.

To the members, the committee in general has the club's best interests at heart, we don't need a club divided, we all need to pull together and work as a group, any grievances or ideas can only be acted on if they are brought to the table and discussed, because we won't get anywhere if we have disputes.

Personally, whether it be for advice or physically, I'll help the club in any way I can.

See you at the meetings.

Yours not so presidentially

Noel VK3CJJ .

NARÉE IDE PASSED AWAY LAST WEEK (article by Ian VK3BUF)



Narée at the 2017 GGREC Xmas party

It is with great sadness that I convey the passing of Narée Ide last Wednesday evening. Narée was the wife of Mike VK3KTO and has been an integral participant in GGREC events and functions for many years.

We first met Nareé around 25 years ago, after Mike and Narée were married and became established at their home in Warneet. This was not far from where their motor launch craft 'Sally' was moored. Narée accompanied Mike to most GGREC Club meetings, pub nights and events. In 1996 Narée completed an 'AOCP/NAOCP' class conducted by the GGREC, but the license eluded her at the time. The jump directly to the Standard (then Novice) license was a big one, as it pre-dated the availability of the Foundation callsigns.

Over the many years that Narée had been involved with GGREC, she had made many friends and entertained us all with her sharp wit and unstoppable humour. Whenever writing magazine article on various Club doings which included Narée, I always took care to get that elusive 'e' (<Alt> 130) in her name just right.

I found lots images of Narée that had been taken at Club events over the past two decades and selected two of them. (courtesy of the archive of Paul VK3TGX.)

The first was taken at a GGREC field trip, back in 2000 out the front of Melbourne Aquarium, and a more recent one from the 2017 Christmas Breakup party at Geoff VK3HGG's home in Pearcedale.

We will all miss you Narée.



The year 2000, at Melbourne Aquarium.

N is for notable, distinguished are your feats
A is for artistic, adding beauty to the world
R is for refreshing, the sparkling you.
E is for electric, a sparkling trait!
E is for eager, let's get started!

<https://www.names.org/n/naree/about>

SK- Reg Goddard VK3UK (ex VK3VRG)

Reg and Jenny joined the Gippsland Gate Radio and Electronics Club in the early 90s.

I mention Jenny always in conjunction with Reg because we always knew them as a couple. I jokingly used to call him Sir Reginald and although it could be taken as a stirring remark, I think back now and in a way I imagine there was another reason why I called him that. Reg and Jenny were very quickly accepted into the Club due to their outgoing and friendly natures. They were keen on the social side and became the driving force of many a social event and helped to shape the way things were in the Club.

Reg was happy to spend time on the Club committee on several occasions and his opinions were treated with importance. As recognition of the work done by both for the Club, Reg was honored with Life Membership and Jenny was raised to Honorary Member status.

I guess you never get to really know a person unless you spend quality time with them. I enjoyed the stories of Reg's early years of taxi driving and bike racing. He told me things about metalworking that I would never have learned otherwise.

Sometimes Reg would self-ridicule to lighten the mood so he took the jests while others had a laugh. I don't think many others realised this. I knew Reg as a kind and idealistic man who asked the questions that others were afraid to ask. He was passionate about all that he did and although he may not have had formal training in some things, he was willing to give it a go; which seems to be lacking in today's society.

Upon reflection, I guess I thought of Reg as a father figure as my own passed away many years ago. I did things for Reg more on a father / son basis rather than for payment or gratification and although I would not entertain the idea of payment, I would duly receive a bottle of booze or similar for my efforts. This was great until my booze cupboard became full and I had to either drink it all or stop the supply.

Reg loved gimmicks. His car was testimony to that. He had any light that would flash mounted somewhere either hanging from the dashboard or somewhere conspicuous from the outside. He and I spent many hours working on his computers. (I know others did at various times also) We had many laughs about Microsoft Windows and both readily abused the company that had produced such an annoying piece of software. He was good at bringing the worst out of that particular operating system but it gave us the time to chat about other things at the same time.

Reg was an accomplished bowler of the 10 pin variety. He was a regular competition bowler with a low handicap and proudly displayed his trophy badges on his "bowling" shirt. On more than one occasion Club members went up against him and promptly lost, but luckily we were only bowling for social points; not competition.

He also had the patience to play snooker at which he also excelled. As said before, he would have a go at anything.

[From Helmut] Amongst other episodes, one of the most hilarious was when the Club had a foxhunt around the You Yangs. Reg and Colin (VK3HR) teamed up for the search of the fox. Both raced around the rocks and boulders of the You Yangs. After they plotted the fox both met up again on one of the big boulders to share their results.

As usual between them bickering and arguing was part of their conversation.

The funny thing was that on the opposite site of that boulder the rest of the GGREC Members gathered which both did not know.

After Reg and Colin argued enough, they decided to find the rest of the club members.

Reg had his compass sitting on the boot lid and forgot to take it with him. Of course when he took off in his car the compass slipped off the boot lid falling to the ground. Behind Reg was Colin who also took off. Not being aware of the compass on the ground he drove over it. In the end everyone in the club witnessed the finger pointing of both of them.

This was our Reg, always very helpful but cheeky and at times, good for a laugh.

You will be sadly missed, mate.

Unfortunately a couple of years ago, due to a serious stroke, Jenny needed more attention than Reg (who himself was ailing) was able to give her. Both moved to a retirement / care center in Donvale where unfortunately no matter what efforts were afforded, Reg could not access the Club's repeaters and so could not keep in touch with his friends.

I don't think the maintenance staff at BUPA had ever seen an amateur radio installation before but allowed an external antenna and operating desk to be set up to allow Reg some simple operating pleasures.

Reg passed away on Thursday 5th July after contracting Pneumonia on top of other health problems.

Although he would not have wanted to leave his beloved Jenny, I am sure he will give them heaps of agro upstairs if they don't give him good food to eat. You tell 'em Reg.

Rest in peace Reg. 73s
(Albert and Helmut)



Maria Harding

RIP 6th July 2018

Maria was a person of great spirit with a very kind and loving nature. Wife of Steve Harding VK3EGD and ex GGREC club member.

Maria did not let her Multiple Sclerosis condition prevent her from doing anything important or enjoyable. She enjoyed traveling and with Steve they dragged the caravan around the country side.

In 1993 Maria published a book entitled "Doveton - a brief history". This account of the history of Doveton is compiled from various sources, as well as first hand accounts.

The last 12 months were particularly difficult as Maria was mostly bed ridden.

She is survived by Steve and two adult children David and Katherine.

Condolences to Steve and the Harding family.



Maria's funeral service will be held at the Dubbo City Chapel, in Dubbo NSW, at 10:30am on Friday 20th July.
A memorial service will be held in Melbourne at the Endeavour Hills Uniting Church, at 10:00am on Friday 27th July.

Thanks for the Memories



More at https://www.dropbox.com/sh/r8j0krihl93hp0/AAB-I5tyN_TBoOancMkd11L5a?dl=0

From The Editor – what a week

Wow has the last month being a hectic one, what with three deaths. Narée's was easy from Frankston, albeit, I should probably have left a tad earlier, as there was quite a respectable crowd for what was quite a small church, so I never progressed past the church's foyer.

Reg's was another story altogether. I relied on my trusty Tom-Tom GPS navigator to get me there; well did it lead me up the garden path – quite literally. I first entered in the crossroads address provided, but when we arrived there was no sign of any funeral house. So I entered the street number instead of the crossroads. That result was quite a few kilometres away – so much so that my Tom-Tom sent us off onto the freeway for a good fifteen minute drive. So what did we find at that destination? – Nothing useful!

Third attempt, just take us to Lilydale town central, and we will use our eyes, this of course was another 15 minute drive. We continued on through Lilydale, and just as we were about to do a U-turn, to try the other end of town, I spotted our destination, No thanks to Mr Tom-Tom.

So why was the Tom-Tom GPS so up the creek? I entered Lilydale every time, but it kept taking us miles out of our way. With only a 5 inch screen, it is all but impossible to pick when we are being directed way off course, unlike a paper map where you can see everything. After Narée's funeral we had set off with an extra hour to spare – we needed it, we actually arrived several minutes late, however proceeding were somewhat delayed so all was ok in the end.

Then my mother-in-law decided to take a tumble and break a few ribs. As she lives in Moonee Ponds, the obvious hospital is Royal Melbourne, a Royal pain to get to from this side of the bay. Not to mention the rather pricey car-park, and don't get me started on the Cafeteria prices at Royal Melbourne. (As usual, outsourced to the detriment of the visiting public)

And finally I had to deal with the aftermath of a light-fingered visitor to our local church. He and his girlfriend/wife came in looking for warmth and loving from the priest, and while she shed crocodile tears, he cased the joint. About an hour or two later he came back, firstly forcibly gaining access to the presbytery's power/switch board and turning off all the power, he then sneaked back into the church, nicked a trolley then painstakingly dismantled the church's audio/visual system, as in a HP computer & monitor, a 16 channel mixing desk, three 19 inch rack mount power amplifiers and other sundry's. He also nicked the Alter cloth to cover all his booty on the trolley and wheeled the whole lot out the front door!

No getaway car needed, he only lives a few doors up the road.



Paul VK3TGX



GGREC HAMFEST

Saturday 4th August 2018

Gippsland Gate Radio & Electronics Club invites you to our annual Hamfest at the CRANBOURNE PUBLIC HALL, located on the corner of Clarendon and High St. Melway Ref: 133 K4.

See our web page at ggrec.org.au/hamfest.html for full details.



40 tables of new and used Electrical, Electronic and Amateur Radio equipment.

- All tables are under cover.
- Tea, Coffee and a selection of hot & cold food will be available during the event.
- Great Door Prizes will be drawn at approx. 1:00pm.
- Doors open to sellers at about 8.30am and the Public at 10am.
- The entry fee is \$7.00 which includes a free door prize ticket.
- Tables are available for \$22.00 each and must be booked in advance. Your booking will include entry for 2 sellers and door prize ticket per person. Tables are allocated on a first in basis so don't delay your booking.

Anyone wishing to reserve a table position should contact the Club soon, as tables go quickly.

Email to hamfest@ggrec.org.au

GGREC Hamfest Saturday 4th August 2018.

Preparation is well underway for the annual Hamfest with all but a few tables available for stallholders. You can contribute to a successful Hamfest by helping out in any of the following activities:- Setting up tables; cooking snags on the BBQ; helping out in the kitchen; door security; carpark management; hanging up signs and banners and keeping the stallholders supplied with food and drink. So you see there is a lot to do on the day but nothing that any member cannot do. The surplus from the Hamfest will contribute to the efficient running of our Club and help to keep membership fees down. We will need to move the BBQ, tables and goods to the hall on the morning of the Hamfest so let me know at this Friday's meeting if you can help.

GGREC is very grateful to our sponsors, Jaycar Cranbourne and Altronics Springvale, who have both generously contributed fantastic items for our door prizes. Without their support, we would have to purchase items and reduce our surplus so if you need to buy electronic stuff, please support Jaycar and Altronics. Don't forget to mention that you are with GGREC and you will be very well looked after.

Get involved and help make our Hamfest a fun day for all.

Bruno Tonizzo

VK3BFT

Hamfest co-ordinator 2018.



ACMA Consultation Paper – New Approaches to Amateur Radio Qualification Arrangements

Many members will be aware that the ACMA released a Consultation Paper calling for input into a review of Amateur Radio Qualifications and Examinations. The existing Deed of Agreement (Exams and Callsign Administration) with the WIA expires in February 2019. The ACMA called for input from interested parties as it prepares to consider next steps. Submissions closed on 2nd July 2018.

For those members who may not be familiar with the Deed between the ACMA and the WIA, it is a contract for the provision of services on behalf of the ACMA. Established 10 years ago, it includes:

- Examination services; and
- Callsign Administration services.

The contract describes the services in some detail and specifies service levels and financial considerations. Notably, the services must be delivered on a cost neutral basis; this essentially means that the WIA must set prices that cover only the expenses associated with the services. It also means that WIA members must not be subsidising government services being delivered by the WIA.

The WIA has struggled with the delivery of these services for some years now. Costs have not been well managed and WIA members have been forced to subsidise services by as much as \$20,000 per year. (This advice was provided by WIA directors at the recent AGM). Many people are also concerned that the services have not moved with the times, are slow, inefficient and expensive. Even assessors comment that the processes are overly bureaucratic, paper based and expensive; all seen as inhibitors to attracting newcomers to the hobby.

Many have pointed to the processes in the USA and UK, both more efficient and less expensive than what we experience here in VK. This is a great opportunity for the hobby to look to the future and consider alternative methods for the provision of these services.

Back to the ACMA review. Of note, and something that has not received much attention, is the timeline to which the ACMA is working as well as their strong preference for an RTO (Registered Training Organisation).

There was about four weeks for responses to be crafted and submitted to the ACMA Consultation Paper. The remaining phases of the process (calls or tender, selection, negotiation and implementation) will need to occur relatively quickly.

The ACMA has indicated it has three possible approaches from which to choose, all of which require a Registered Training Organisation (RTO) be in place. Many, including the incumbent service provider, have concerns that an RTO will only add further costs and complexity to the process and is not necessary for a hobby based activity.

Given the ACMA's requirements for an RTO, we can only assume they are looking for a more robust and professional approach to overseeing the delivery of examination services.

“For approaches one and two, the ACMA expects to release a request for tender on AusTender in August 2018. This request for tender would be open for at least a month, closing in September 2018. After analysing the submissions received, the ACMA would notify successful and unsuccessful tenderers. This is anticipated to take place in November 2018 to enable a contract to begin for approaches one and/or two before the end of 2018.

For approach three, the timing and steps are dependent on a range of external circumstances, including ongoing negotiation with bodies associated with the Australian Qualifications Framework. The ACMA will work with the vocational education and training sector to achieve a timeline for approach three, as close as practicable to approaches one and two.”

Both the The Radio Amateur Society of Australia and Wireless Institute of Australia invited input from all amateurs. Both organisations’ submissions are provided in the links below; members are encouraged to read these documents.

RASA: Read the full report here:

<http://vkradioamateurs.org/response-to-acma-exams-consultation-paper/>

<http://vkradioamateurs.org/response-to-acma-exams-consultation-paper-part-2/>

WIA: Read the full report here:

<https://www.wia.org.au/newsevents/news/2018/20180704-1/index.php>

In addition, several radio amateurs made their own private submissions to the ACMA.

73, Chris VK3QB

International Lighthouse & Lightship Weekend

The Club is hiking to the Wilsons Prom Lighthouse on 17 August for the ILLW Weekend. This is now a popular global event with over 500 lighthouses from across 40 countries taking part each year.

Due to a cancellation we still have one bed available for any member who may be considering this epic event - an 18km hike on the Friday, two days of R&R and radio activity from the Lighthouse, and then on the Sunday an 18km hike back to Tidal River.

If you are interested, please contact Chris VK3QB on 0429 187 593 or vk3qb@hotmail.com

73, Chris VK3QB



TO PEE OR NOT TO PEE – INFRARED TECHNOLOGY vs NAUGHTY CATS

By Ian Jackson VK3BUF

There have always been cats around the different houses I have lived in. They are just part of the background noise of a home, willing people to open doors for them, only to stop halfway and stand there, doing a cost-benefit analysis of inside versus outside temperatures. About eighteen months ago Penti (short for Pentium) cashed in her chips at about 20 years of age, and late last year Sparky went the same way at a similar age. It's sad, but our feline friends have a definite use-by date. So we thought we'd try a grand experiment and get matching kittens. They were duly christened Star and Delta.



The star of the loungeroom

We had a cat door into the courtyard and litter trays and all the things that cats use. They arrived shortly before Christmas, so of course they lived in the Christmas tree for a few weeks. We got used to a couple of pair of eyes following us around the room



What is it about cats and Christmas?

through different levels of foliage. That was all fine, but kittens being what they are sometimes had the odd 'accident' where they got lazy and would sneak around the back of a chair for a pee. We did the usual things and dumped them in the litter tray at the first signs of mooching around. We thought that Star and Delta were just going through a bad phase and simply needed the right induction.

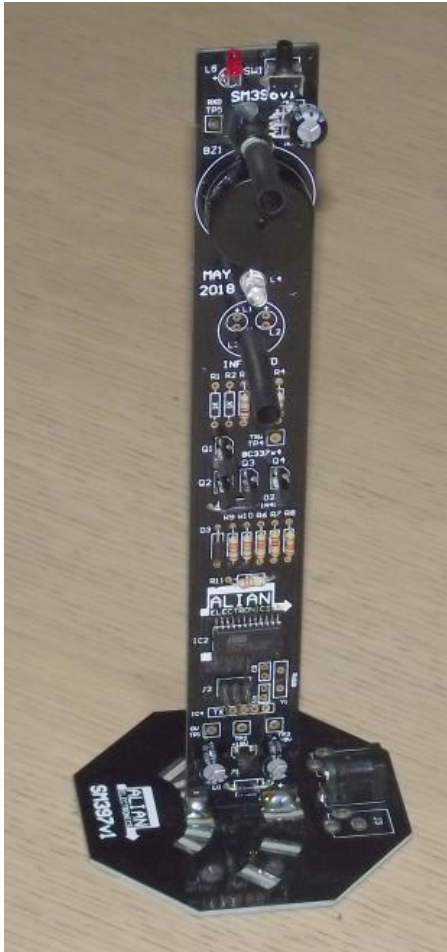


Delta going through a phase

They began to get more sneaky with their 'accidents' but on dark carpet it is almost impossible to see. So I took the infrared camera from the workshop and performed regular security sweeps. A fresh transgression would look like a bright yellow spot under infrared, but if I only came back later it would be a dark cool spot for up to two days and we could tell where to disinfect and scrub. A pleasant odour it ain't!

Our kittens were cute, but they weren't making us very happy after all of this bucket work. Mostly they went into the courtyard to irrigate the lawn, or use the litter box, but there were sufficient bright infrared patches in discrete places to frustrate us. They had even targeted the spot under the life-sized PVC alpaca that stands in the corner of our lounge. Normally cats figure out what to do within a few weeks, but this was taking too long. I suspect that because they came as a pair, played, ate and slept as a pair, that it somehow it had retarded their progress, or perhaps they were just jerks. It's difficult to say.

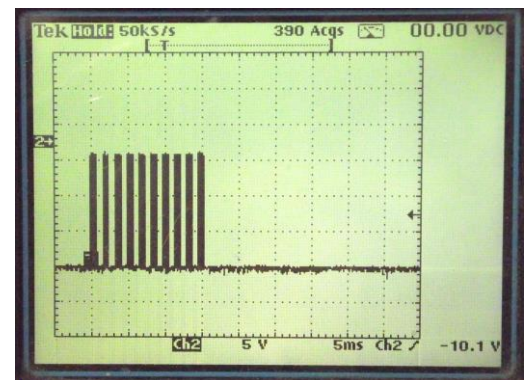
Anyhow, I did the only possible thing left to be done. I created a series of miniature infrared beams and put them behind the furniture and along the walls. It was the next logical step. Each little tower would emit an infrared signal, travel for or five metres to a bit of reflective tape on a wooden block, then bounce back to an infrared receiver on top the little tower. When the cats broke the beam, it would beep loudly and they would run away. They didn't like these electronic beepers one bit. The sound would also alert humans in the room that the cats were being sneaky and needed to be turfed out the door and back into the courtyard for a spell.



A single infrared transceiver tower

The base plate is a separate pcb with a DC power socket and slots to receive the vertical module in several positions, so that they can be a single unit (left) or two strips can be set up back-to-back, or angled at 22.5° or 45° to peak around corners. (for some reason, there are some funny angles in our loungeroom) The slotted footprint also delivers 12V from the power socket to each strip module soldered in place. The pcb strips are about 200mm tall. A 78L05 voltage regulator creates a 5V power rail. An Atmel microprocessor does all of the modulation and decision making work, all written in assembly language code.

About two-thirds up is a single 5mm Infrared LED (950nm), with provision for two more if extra IR grunt is needed. Above this is a high intensity red setup led, which provides visible light during beam alignment. Next is a nice loud piezo beeper which also operates under microprocessor control. Above that is a generic infrared receiver device, the old TSOP1836. At the top is a push-button setup switch and a small status led.



***The letter U sent twice at 1200 baud.
The shaded areas show the 36KHz sub-carrier***

How the beam signal is received is a little bit complicated. The infrared receiver is not simply light sensitive to 950 nanometres. It is a clever little 3-wire part expecting pulses of data typically 1200 to 9600 baud. It will ignore constant light sources. These devices are used inside TV's to detect data from their matching infrared remotes. The receivers have plastic filter material to reject all but infrared light. There is one more important thing about these receivers. They will only process light that has a 36KHz square wave sub-carrier superimposed on the data. This is a sunlight rejection feature, so it will not respond to flickering daylight through curtains etc. The received signal is fed into the microprocessor where it tries to process the received signal as ASCII data

This strategy turned out to be very effective and to date I have not had a single transgression in an area where a beam has been set up on the floor. So, displaced from their favourite carpet haunts, they switched to plan B and would produce the odd yellow puddle on the vinyl floor at the rear of the dining area. Although it was easier to clean up, I figured I had these young asshole cats on the run and just added more infrared beams until they stopped doing it. I didn't care. After I first designed the beam pcb and wrote its software I had a batch of twenty circuit board blanks made in China, air-freighted back to Drouin West, assembled them and dished them out like parking tickets. I'm glad that when I built the house, I put lots of extra power outlets in the lounge. (Just thinkin ahead in case one day I had incontinent cats to deal with.) They tried to migrate their efforts behind the couch in an adjacent room where we watch TV. No matter...more beams, ironically next to a stack of old VHS Star Trek tapes.

The perimeter is secure and now the cats recline merrily (if not nervously) in the centre of the room. Life has returned to normal and the cats have become resigned to the fact that they tried to screw with the wrong guy. Victory is mine and I still have 7 or 8 beams on standby in a box.

So now let's have a look at the technology behind these feline frighteners.



A reflective target block

For the circuit to work, our infrared led has to be fed with just the right signal. The USART (serial data) port in the micro is set up to send a small group of ASCII characters at 1200 baud every 100 milliseconds. In this case I used the letter 'U' in upper case, because the binary version of this byte has lots of alternating bits. I also instructed the microprocessor to produce a 36KHz square wave on a separate port. A two transistor combination mixes the 36KHz with the serial 1200 baud data and pulses the narrow angle LED to broadcast a unique beam signature. With a single LED, devoid of any optical enhancement, this creates a beam range of about 8 metres. As it must hit a block with some sticky-back reflective tape and bounce back, I only get around 4 metres of cover for each unit. Upon power up the software enters a 'dead mans handle' configuration and does a slow and annoying Beep....Beep....Beep continuously if it does NOT receive its own infrared signal. A one-minute timer will put it into a sleep state In

case it gets knocked over.

An as-yet unused feature of this design was the provision for a 433MHz, 10mw RF transmitter just below the microprocessor, with a pcb track as an antenna. The potential is there for the unit to broadcast an alert on an LIPD frequency so that I can be remotely alerted of an incursion up to 100 metres away. I haven't yet tried out this feature because the last thing I want to do would be to over-complicate things.

I figured that aligning to a missing beam would be a pain, so on the top of each strip is a tiny setup button. Press this button once and the status led next to it flashes slowly, while the high intensity red led shines a bright red visual beam in the direction of the infrared beam. Also the beep state is inverted during this time, so the unit is normally silent, then beeps rapidly when it receives its valid infrared signal.

During the setting up time, the reflector can be rotated to reflect the red light back to the source until maximum beeps are heard. Once aligned, pressing the button a second time puts it back into sentinel mode, but now it will be silent until a marauding moggie wanders past.

The cat psychology side is interesting. Very quickly they associated the annoying long beeps with their presence at somewhere that they shouldn't be. They immediately run away from the noise. But they probed the edges until they worked out the extents of the beam and were quick to react when I added extra beams. After just two days they had mapped out the room and avoided the beam areas like a minefield. After one week they rarely tripped any alarms.

Perhaps it may be seen by some as a draconian move, but I'm calling it a success. It only took the one day to draw up the circuit, prepare the artwork and email the design to China for processing. This was followed by another evening ten days later to shovel in some software.

Really it is an exercise in both microprocessor programming and cat programming. Whenever anything beeps from a smoke detector to a reversing truck, they leap up and run away. Think of it as a conditioned survival trait. One day they may thank me for it, but I won't hold my breath waiting for that day.



A corner unit, firing in two directions

GGREC HAMFEST UPDATE:

Our Hamfest Co-ordinator, Bruno VK3BFT, advises that everything is progressing to plan, but we still need volunteers to assist on the day.

We need people to assist with setting the hall up from about 8am, marshalling and generally assisting with enquiries through the day, then helping to pack up and clean the hall; usually around 2pm for about one hour.

Pat VK3OZ is once again leading the charge with kitchen duties, and asks for willing and capable hands to assist in the kitchen. As usual, we need help with the BBQ, food preparation and service and cleaning up the kitchen.

If you're able to help on the day, even for a few hours, please let Bruno know. It's on Saturday the 4th August. The GGREC Hamfest is always popular and well patronised and is our single largest revenue stream, so please help your club with this major event.

Contact Bruno on 0418 945 461 or email at htonizzo@bigpond.com

73, Chris VK3QB

GGREC thanks Jaycar and Altronics for their support

On behalf of the club, the committee extends a big thank-you to Harold from Altronics in Springvale and Peter from Jaycar in Cranbourne for their long term support of the club. This year is no exception with both businesses providing some great products for our door prizes.

Please support both these businesses and make sure you mention you're from the club.

Altronics – Professional Gas Soldering Iron valued at \$136.00

Jaycar – LED Headband

Bluetooth hands free with FM transmitter for the car.

Temperature controlled soldering station

Quality Digital Multimeter

PCB Holder with magnifying glass and soldering station

Jaycar catalogues.

73, Chris VK3QB

Social Media & On-Air Behaviour Policy

Recently there has been an instance of inappropriate behaviour on our social media page. This type of behaviour is unacceptable to the club in any public forum, be it on the club's Facebook Page or on a club repeater.

As a result, the club has reviewed and updated its Social Media Policy of behaviour. A copy is provided in the magazine, on our website and on the Facebook page.

GGREC Social Media Policy

Last updated 30th June 2018

GGREC uses social media to encourage exchange of information in an open and transparent environment. Social Media offers a responsive (real time) informal platform for members to access and share information on their computers, tablets and mobile devices.

The term 'social media' refers broadly to any online media which allows for user participation, interaction or publishing. Commonly used social media tools include but are not limited to, Facebook, MySpace, YouTube, Twitter, Blogs, Flickr, forums and discussion boards and wikis as well as "On Air"

We promote open and honest discourse. In the interests of maintaining harmony and balanced commentary, we ask all users to exercise good judgement when posting comments or replying to a comment. We encourage open debate and analysis of commentary.

However, we will not tolerate any material that would directly or indirectly be:

- Derogatory or obscene;
- Slandering or personal attacks;
- Potentially defamatory;
- Bullying, harassment or vilification;
- Any form of sexism, racism or discrimination in any form;
- Communicate any private information of individuals, groups or the GGREC;
- Communicate anything that is regarded as being in "poor form" or not in line with general community expectations or irrelevant to the objectives of GGREC or the amateur community at large.

GGREC administrators reserve the right to remove or delete inappropriate postings or any that are factually inaccurate or misleading and block repeat offenders from accessing the page or pages.

Copyright and all laws or standards should be observed when posting content.

secretary@ggrec.org.au

Don't Go There



They may be trying their best to get at you but sometimes it's just best to let it go and don't try and return the ball to their court.

Yes, you can give it your all, but just think of the consequences; it could easily end up giving you more pain than it was really worth. You don't have to use your killer stoke every time, sometimes it's just best to let it do though to the keeper, and live to play the game another day.

Paul VK3TGX

More Zaps – The Wrap-Up

The wrap up.

This is the follow-up to the story I had in the 'Editor' section last month, unfortunately much more relevant stories came up displacing this one, but the ending still needs to be told.

On Wednesday my sparkie called up United Energy about 7:30 am.

In the meantime I had Google 'Chief Electrical Inspector', and I had ended up at the 'Energy Safe Victoria' website, so I grabbed their contact details and gave them a call. They checked who did the distribution in Frankston, and advised me to call them. The bloke who took my call said call the emergency number, then promptly hung up! – Such lovely customer support.

A lady answered the emergency number and identified herself as the person my sparkie had been talking too, and that the nearest crew was coming after their current job.

The crew eventually came around 10:30, gave it a quick test, all ok!!!!

So I had a yak to them and they had another look, and eventually found the fault in that brown terminal block, which turned out to be where the lead to the switchboard made its appearance, these days it comes into the back of that larger black box, that also contains the houses 'service fuse', 50A in my case.



To their credit, the fault had been passed to them as 'Low power line', not the sort of fault to get anyone moving, so no wonder it was taking them so long to front up.

Anyway, as soon as they had the brown terminal block opened, all was revealed, However that was past their line of responsibility, so they had to wait for my sparkie to return. By 1:00 we were back on the air again, and I could resume my normal tasks for that time of the week – well back to club magazine creation, at least I now had another story to tell.

Luckily for me the job was regarded as a repair, so like for like components could be swapped in to fix us up. The other option mentioned by my sparkie was upgrading the rather ancient cable that leads from the feed-in box to the meter box. Mine is rated at 50A, however 80A is more the norm these days. Unfortunately the job would now no longer be a repair, but rather an upgrade, and as such everything would have to comply with the current regulations, and I'd need the inspector to attend etc.

The biggest catch in my case is the height of the feed-in point with respect to ground, the current reg is 3M, mine was more like 2.5M, so I would have to have a riser pole attached to lift the box up above the 3 meter point. I had a look around my neighbourhood at houses that had been upgraded, boy were the results ugly.

If I ever end up going for an upgrade, it'll be underground for sure.



Paul VK3TGX



Gippsland Gate Radio & Electronics Club Inc.



AN INVITATION TO STALLHOLDERS

On Saturday the 4th of August 2018, the Club will be conducting its annual HAMFEST for the sale of new and used electronics and radio equipment. As it was last year, the venue will be at the Cranbourne Community Hall on the corner of Clarendon and High Street, Cranbourne. High Street is part of the South Gippsland Highway Melway 133-K4.

The Club takes pleasure in offering you the opportunity to become a Seller at our 2018 event. Forty one tables will be available for stall holders and can be booked online.

Details can be found on our web page at <http://ggrec.org.au/hamfest.html>

- Table hire remains unchanged at \$22 per table. A limit of 4 tables per Stall Holder applies. Table Hire provides access for 2 people to operate the stall and includes 2 tickets to the door prize and free tea/coffee throughout the day
- The \$22 fee must be paid in full to the Club within 7 days of booking your table. Cancellations made more than 14 days prior to the event will be given a full refund by Direct Transfer (EFT) or by cheque if Direct Transfer is unavailable.
- To make a booking please contact us by email at: hamfest@ggrec.org.au. Payment may be made by direct transfer (EFT) to: **BSB 633000 ACC 146016746** or by sending a cheque or money order (payable to 'GGREC') to: GGREC c/- Dianne Jackson 408 Old Sale Road Drouin West VIC 3818. If paying by direct transfer (EFT), please include your call sign/name as the reference.
- When making a table booking, Stall Holders will need to provide a **Name, Postal Address** and **Contact Phone Number** with a **Return Email Address** if different to that in a reply. Table requirements will include **quantity** and if **240v power** is needed.
- Upon receipt of the \$22 per table fee and contact details, a **Booking Number** will be sent as a receipt of payment. **IMPORTANT! No booking is confirmed until this number has been received by the Stall Holder.**
- Access to the Hall shall be from 8.30am (earlier if ready) for Stall Holders (and not later than 9:30am unless by arrangement).
- Transfer of your booking to another person is not permitted. Please contact us if you cannot attend or wish to discuss your booking at: hamfest@ggrec.org.au.
- The doors will open for buyers at 10am with a \$7.00 entry fee.

Each year, this event is a great success with many hundreds of people through the door in our large Cranbourne venue making it a premier event for radio markets in this state. We look forward to hearing from you.

Camcorder Repairs?



Years ago I bought an 8mm Sanyo camcorder. At the time there were two competing formats, VHSC & 8mm, As the VHS option only had a runtime of 20 minutes, I went for the new boy on the block, 8mm. Unfortunately that particular Sanyo camcorder was a bit of a lemon, it barely got out of its warranty period without dying big time.

At the time of its first failure I took it back and persuaded them to fix it, unfortunately that fix was rather short lived, so 6 months later I had basically given up on it and upgraded to a Phillips SVHS (as in full size VHS) camcorder. (It turned out these were made by JVC)

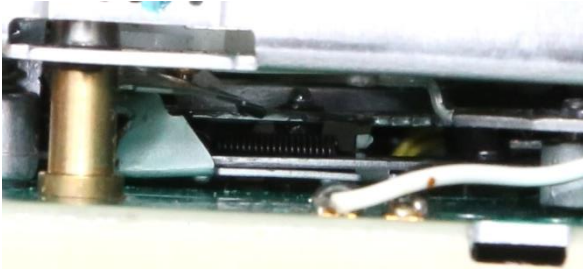
Now many years later, I still have a box of old tapes that I would like to view again, so when Graeme VK3XTA had a cleanout, which included 2x 8mm camcorders, I grabbed them both.

So now I had two Sanyo's & one Sony, surely between them all I should be able to view my old tapes. Unfortunately it was not going to be that easy, as they all seemed to have the same kind of fault, lots of noise and litter in their pictures and mechanisms that were reluctant to obey basic commands like, eject/open, etc. so I can insert a tape. (Retrieval was much harder!)

I ended up pulling the 'new' Sanyo to pieces, it was a bit of a nightmare to disassemble, but I eventually got the rather sticky transport out.

Quite a lot of the bearings were so stiff it wasn't funny, however what sealed this one's fate was part of the metalwork not being able to move, had instead bent, and to make it worse, it (and many other stiff joints) were buried deep between the basic two layers of the transport making it all but impossible to gain access for repair's to proceed.



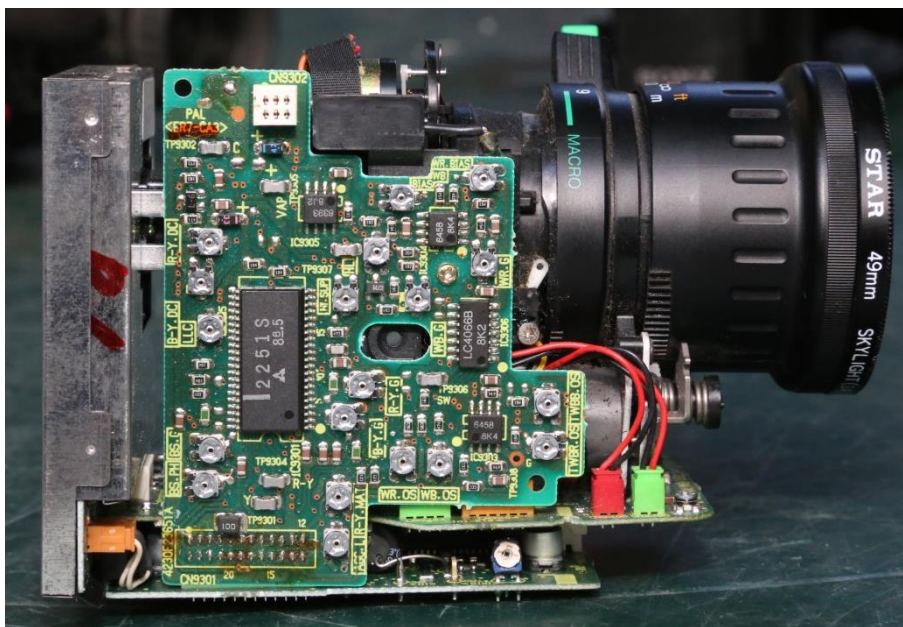


Here is a close-up, the bent bit is just to the side of that brass post. How on earth does one get that out so it can be straightened, and what are the tolerances that it has to comply with, for the transport to work?

Apart from that, just look at how many leavers etc. are in there that may need attention. At this point I

threw in the towel on that one. Next came the 'new' Sony, it seemed to be mainly suffering power supply faults, however on pulling it apart, I could see where someone had had a go at changing several surface mount capacitors near the power supply module, one of them all but falling off. So I carefully soldered it back into place, however I soon smelled the dreaded 'nappy shit' odour as my iron hit leaked capacitor electrolyte on the PCB. I then knew this one was also a gonner, that stuff is corrosive & conductive, and worse of all, can easily permeate through circuit boards creating faults all over the place by resistively linking circuits together that normally would remain isolated from each other. After getting the soldering good enough I had a look with my oscilloscope, the main rails looked good, but there was still heaps of what looked like switching noise (lack of filtering?) in the eyepiece monitor. So was it an electrolyte spill coupling a power supply switching converter into a video line? It kind of looked so.

The other symptom I had seen in this unit was the servo control systems associated with the head drum, instead of spinning it up at 300 RPM, it would sit there and just jitter back and forward. If I tried hard, I could manually get enough spin up on it that the control circuits could take over and bring it up to operational speed, but that was far from the last problem, as the tape supply and take-up systems would then not function, so overall another write-off.

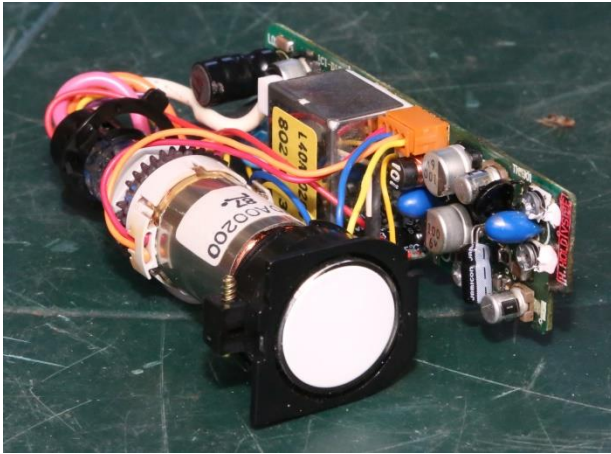


Whilst working on the Sanyo, I noticed an image fault in the viewfinder, a 10mm CRT based B&W screen. On its associated board, one of the trimpots was able to fix the fault, but boy did I have to move it quite a way from its original factory position.

Now looking at the camera assembly, look at all those trimpots, if all of these are also off by a similar margin to the eyepiece monitor, boy do I have some work cut out for

me. What's the chance I can get a copy of the alignment procedure from Sanyo, and then not need some special test jig, or test equipment – ZERO!

For a bit of fun I was able to get the eyepiece monitor to work, 5V was about right as a supply then all I needed was some composite video. One catch though, the picture was upside down to compensate for the mirror in the camera's eyepiece. It didn't take too long to identify the vertical deflection coil wires and flip the picture over.

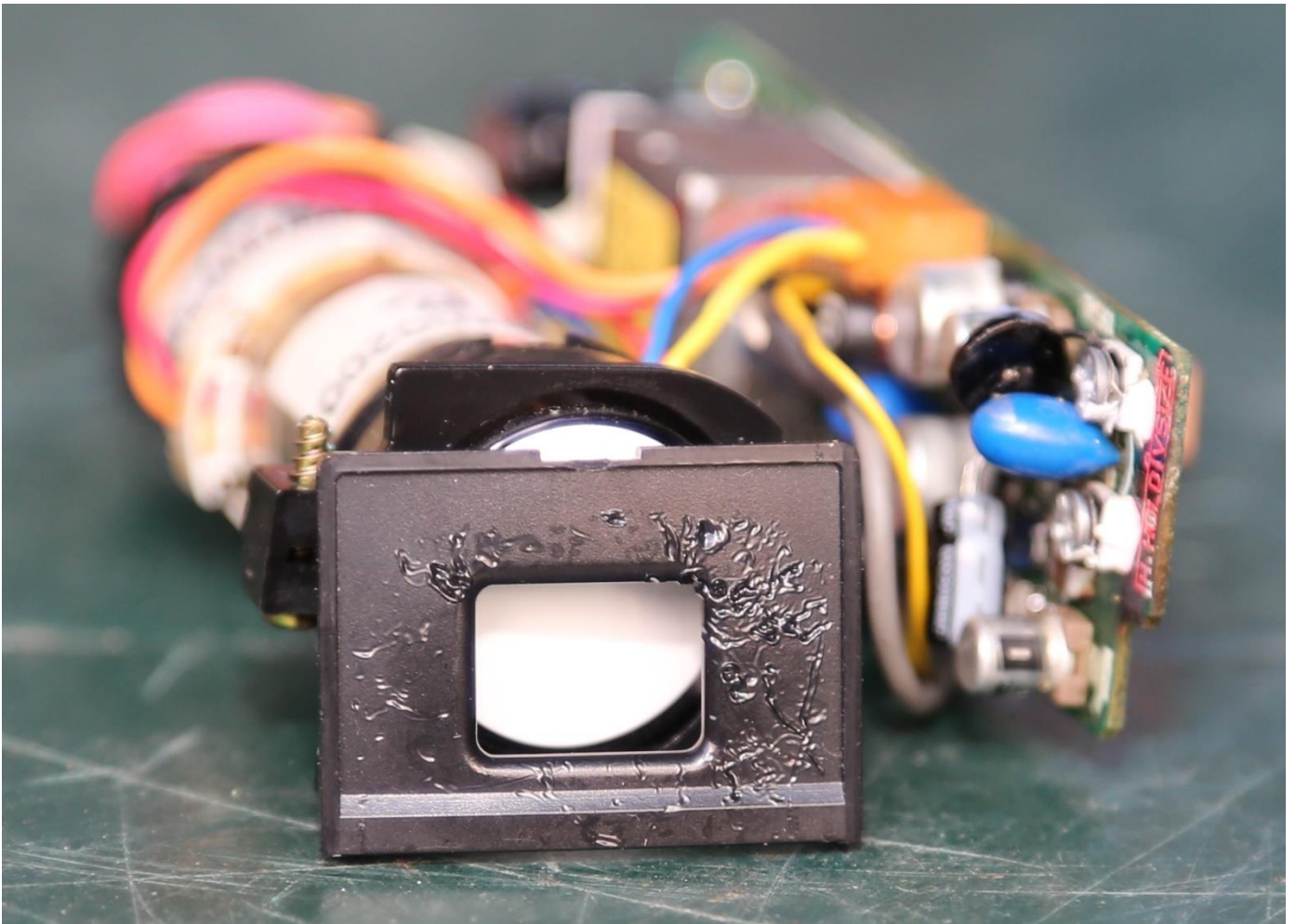


So what can someone do with a 10mm CRT display? I had it displaying live TV courtesy of a digital set top box, but boy, this has to be the smallest picture I've ever tried to view.

So it will probably just live in my curio cabinet till I have an idea for another crazy project.

Any ideas anyone?

And yes, it can be driven by an Arduino.



One strange thing I found was all these burn marks in the plastic surrounding the eyepiece monitor. It looked like someone had shoved a soldering iron in there and had their jolly's (maybe after a previous repair attempt fail) But no, Graeme VK3XTA assures me it's from stray sunlight entering the eyepiece, and being focused by the eyepiece optics on to the screen area.

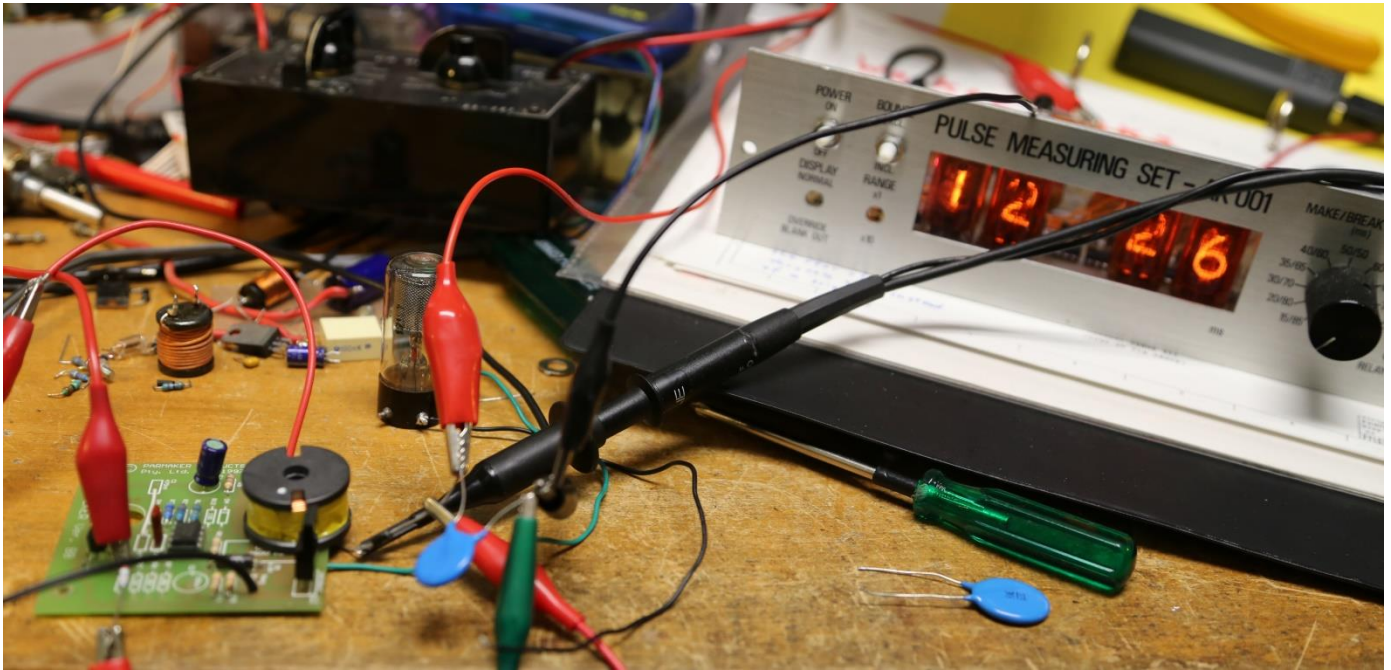
So this kind of says something about how rugged that CRT screen is, no visible damage at all.

So it looks like I'm back to square one, a box of tapes, and nothing to play them on.

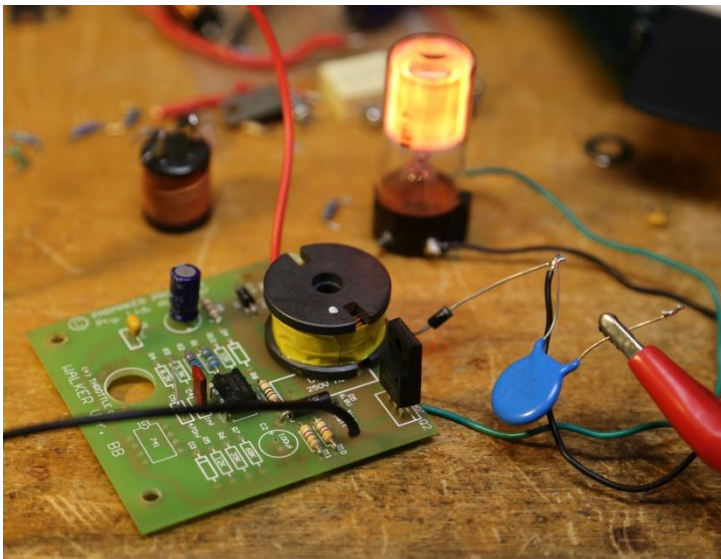
Paul VK3TGX

Arduino & Nixie Tubes

part 3



A bit of an update on my Nixie clock project, not too much headway has been made, too many distractions. I kind of wanted some cabinetry work done, but that should probably wait a touch.



This is the 12V to 250VDC converter mid build. The large neon bulb is both an indicator that it is working, and also a load so that the output does not shoot off the chart and blow something – probably the FET, or the diode.

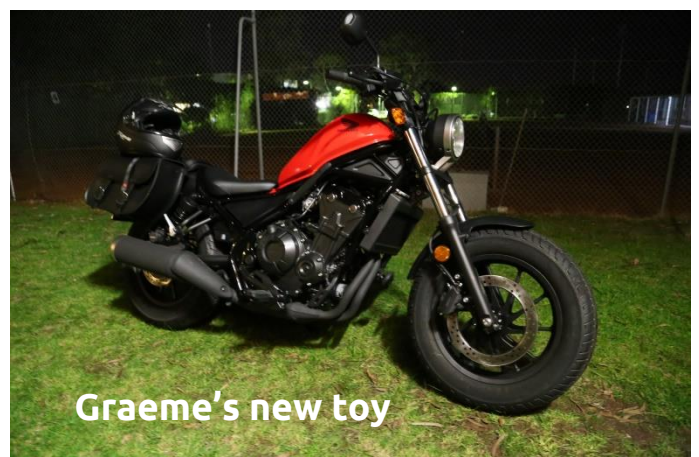
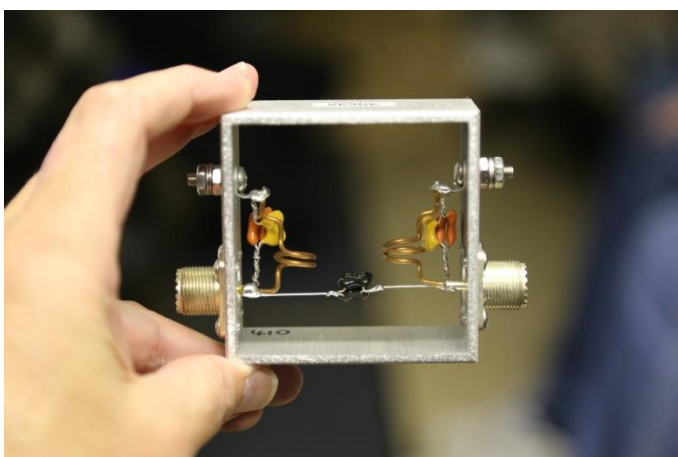
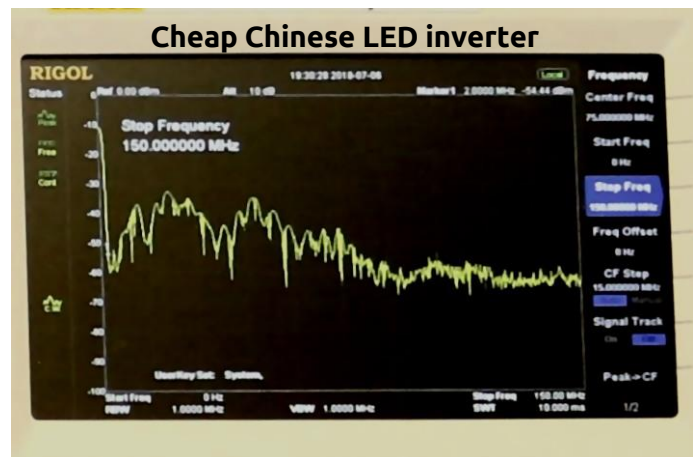
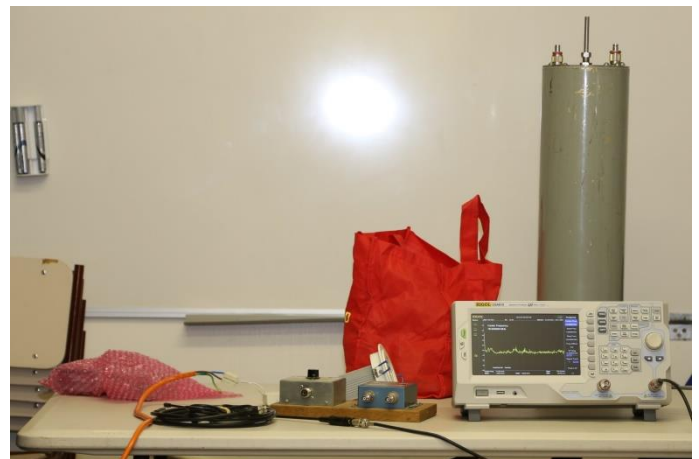
The giant Neon is holding it back to a nice and safe 150V, the blue disc capacitor is the main HV filter, it is rated at 3KV so no chance of blowing that one.

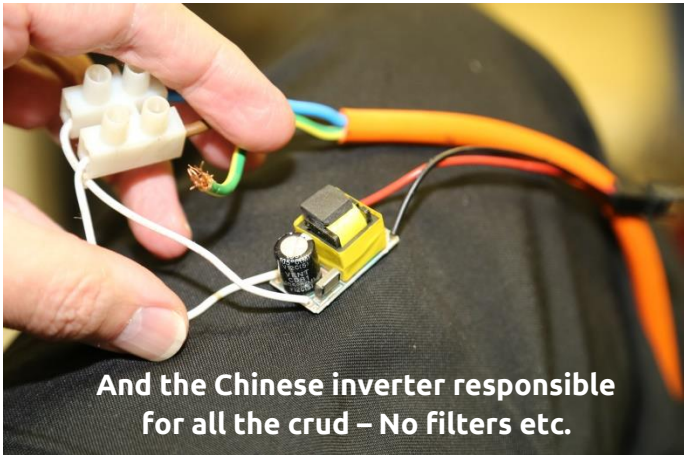
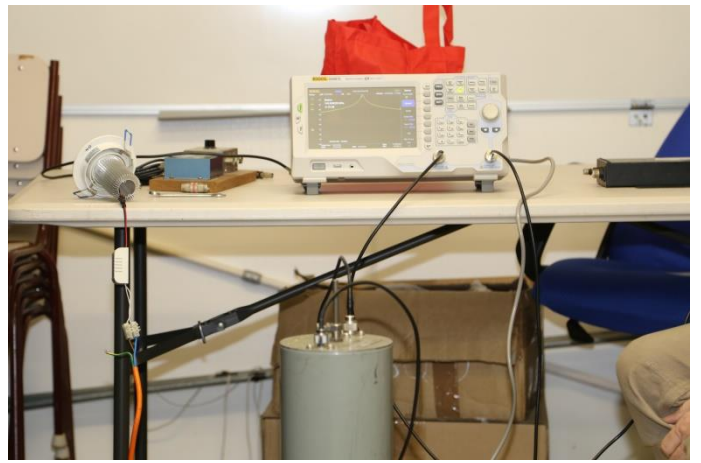


This is the output from the coil, (50V a division) there is quite a bit of dead time with no drive to the coil, (the part between the pulse and the 'step down') so I will probably up the frequency, maybe to double the frequency. The actual 'drive' period, about 50us (the down step before the pulse) has to be kept so the coil gets sufficient charge before it is let fly by turning off the FET.

Paul VK3TGX

Prac Night – Spectrum Analysers





Mid-Year Lunch



Hi,

I recently sold one of my radios via VKClassifieds and got a bit carried away with the advert, I hope you can use it as a bit of light entertainment in the next Gateway mag?

By the way the radio has been sold Must have been the advert that nailed it!!

Kind Regards

Glenn Corrie
VK3GC

Loving housed in a smoke free home this nothing short of amazing modern piece of ICOM engineering has provided me trouble free operation since I had the honour of became its original owner after purchasing this radio from ICOM Australia via Slim's toy shop in Bayswater Melbourne. Meticulously cared for and always stored under cover, inside and out of reach of children, this IC-7410 is typically driven by a licensed operator, on Sundays (but not to my local church ... that's only walking distance from my place, not that I've been to church for years, but in case I do want to go, I won't need to take the IC-7410).

This particular ICOM IC-7410 has been connected via the USB port on my laptop (typically comm port 8) to help me log only 1,097 contacts into my copy of Ham Radio Deluxe (HRD). Many exotic locations appear in my log book, all due to the luxury of owning this IC-7410, locations such as USA, Russia, Spain, Nicaragua, and Springvale. I only use version 5.24 of HRD (the free version) like most hams I'm too much of a tight ass to pay for version 6 ... but that's a story for another time. You too can fill your logbook with these rare DX locations simply by making me an offer to purchase this radio.

I have a software release policy that ensures firmware is maintained at least n-1 ensuring the most up to date firmware is loaded in into the radio, but the fact that ICOM have never released any software updates for the IC-7410 means I've never needed to update it, so rest assured the radio will be supplied to you with the most recent firmware version directly from the ICOM factory in Japan. That reminds me I need to book that teppanyaki restaurant for next Saturday night.

With my headphones plugged into the Phone jack (it's a 6.3mm jack on the IC7410 ... seriously who still uses these?) and the stock standard HM-36 hand mic (that one uses an 8 pin connector) typically held in my right hand, my on air reports are nothing less than spectacular.

Optional IF Filters FL-431 (3 khz) and FL-430 (6 khz) are designed to reduce interference from strong nearby signals, these can be installed by carefully following the instructions on page 95 instruction manual, I haven't done this so I can't really tell you if it's worth paying the extra for them. I'm sure if you wanted to add these optional extras, authorized ICOM resellers or reputable retail outlets like VK Classifieds, eBay or Gumtree could be the place to pick up one (or both) of the beauties at a bargain price.

The ICOM IC-7410 followed the now discontinued IC-746PRO and/or IC-7400, neither of which I have ever owned, but I'm reliably informed the IC-7410 is a significantly better radio (*reliability of the trusted informant is somewhat subjective).

The technology of superheterodyne receivers was patented in 1917 and is a well tried and proven receiver methodology. The IC-7410 I'm offering for sale has a double conversion superheterodyne, so I recon this makes it twice as good as anything else using single conversion superheterodyne (**this is my own assessment and not that of the trusted informant I previous made reference to, he's a garbage truck driver and has never heard of Ham radio, I tried to explain to him that is just like the CB radio he's got in his truck, and he wants to know if we say breaker-breaker and 10-4 rubber duck like he does?)

The IC-7410 will receive on all your favorite HF + 6M bands and for no extra cost I'll throw in the ability to transmit. TX power is available in 1 watt increments all the way up to an astonishing 100 Watts (SSB), assuming that you connect it to your own previously supplied and installed 13.8 V DC output power supply with a capacity of at least 23 Amps. Please refer to the instruction manual of your power supply for further details as my knowledge of power supplies is limited to that of my own.

Consistently rated 5/5 on eHam by your fellow ham operators around the world, except for this one bloke who gave the IC-7410 a lower rating because he couldn't get the USB interface to work with his PC, but that ended up being caused by using a faulty USB cable, not the IC-7410's fault, so that makes the average rating for the IC-7410 on eHam drop slightly to 4.8 out of 5. This HF/6 transceiver sits in the mid market price range but performs like a high end radio. So if you want a high end radio and are prepared to pay a high end price, don't bother contacting me I can't help you because I'm only selling an IC-7410 not an IC-7851.

OK lets cut the crap, here's the deal, I'm seriously trying to sell my ICOM IC-7410 to free up some funds to buy a new SDR, I'm the original owner, the radio is in excellent condition, with all the original mic, power cable, packaging, manuals etc. The radio is stock standard, it's never been modified, never had a fault, never had the covers taken off it. Everything you want to know about this radio can be found on the internet, particularly eHam

<https://www.eham.net/reviews/detail/9658>

You're most welcome to arrange an on air test with me or even come to my QTH to see the radio in operation. Pickup on purchase is most preferred, however if you do want the radio shipped to your location within Australia this will be at your additional expense (including insurance).





Club Information



Meetings 20:00hrs on third Friday of the month at the
Cranbourne Guide Grant Street Cranbourne
Prac nights first Friday in the Peter Pavey Clubrooms Cranbourne 19:30hrs
Visitors are always welcome to attend

Office bearers

President			Web Master	Mark Clohesy	VK3PKT
Admin Sec	Michael Van DenAcker	VK3GHM	Magazine Editor	Paul Stubbs	VK3TGX
Treasurer	Chris Chapman	VK3QB	Property Officer	Bruno Tonizzo	VK3BFT
General 1	Barry Hamilton	VK3ABH	Secretary	Ian Jackson	VK3BUF
General 2	Ron Lacey	VK3FRDL			

Call in Frequencies, Beacons and Repeaters

The Club Station VK3BJA operates from the Cranbourne Clubrooms.
6m Repeater Cranbourne VK3RDD, In 52.575 Out 53.575 CTCSS none
70cm Repeater Cranbourne VK3RLP, In 434.475MHz Out 439.475MHz CTCSS 91.5Hz
VK3RLP Repeater supports Remote Internet access (IRLP), Node 6794.
70cm Repeater Seaview VK3RWD, In 433.575MHz Out 438.575MHz CTCSS 91.5Hz
Simplex VHF - 145.450MHz FM, Simplex UHF - 438.850MHz FM
VK3RLP Beacons 1296.532MHz & 2403.532MHz (currently inactive)

Membership Fee Schedule

Pension Member rate \$40.00 Extra Family Member \$20.00
Standard Member rate \$50.00 Junior Member rate \$25.00
Fees can be paid by EFT to BSB 633000 - Account 146016746.
• Always identify your EFT payments.
• Membership Fees Are Due at each April Annual General Meeting.

Magazine Articles to editor@ggrec.org.au or vk3tgx@gmail.com Cut off, 10th
All other Club correspondence to: secretary@ggrec.org.au
or via Snail Mail : GGREC, 408 Old Sale Rd, Drouin West 3818
GGREC Web Site & Archive may be viewed at: www.ggrec.org.au
Website errors, contact web master via email webmaster@ggrec.org.au
Facebook Page www.facebook.com/GippslandGate