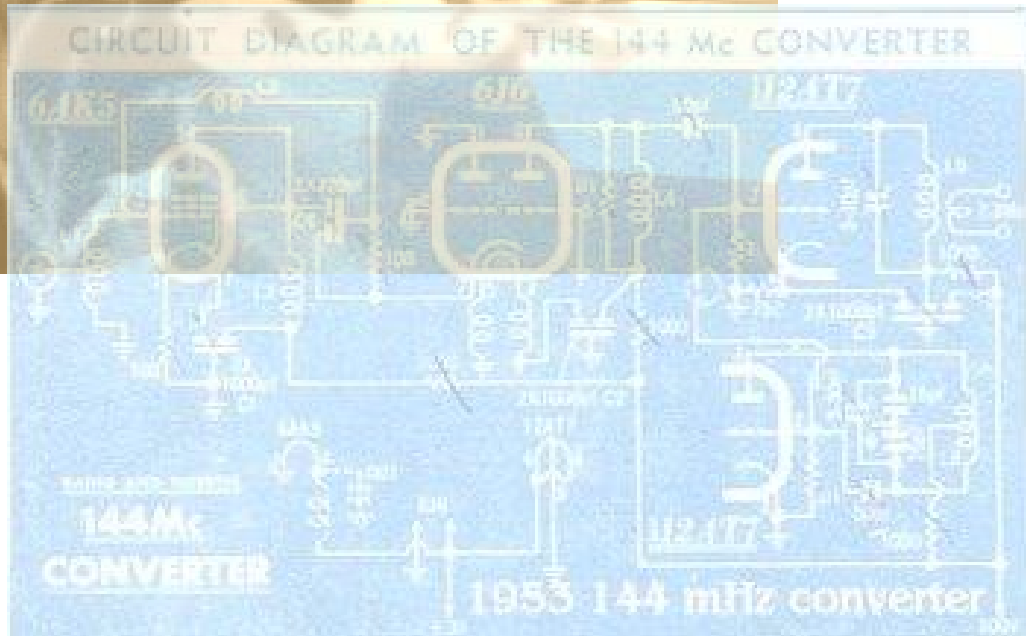
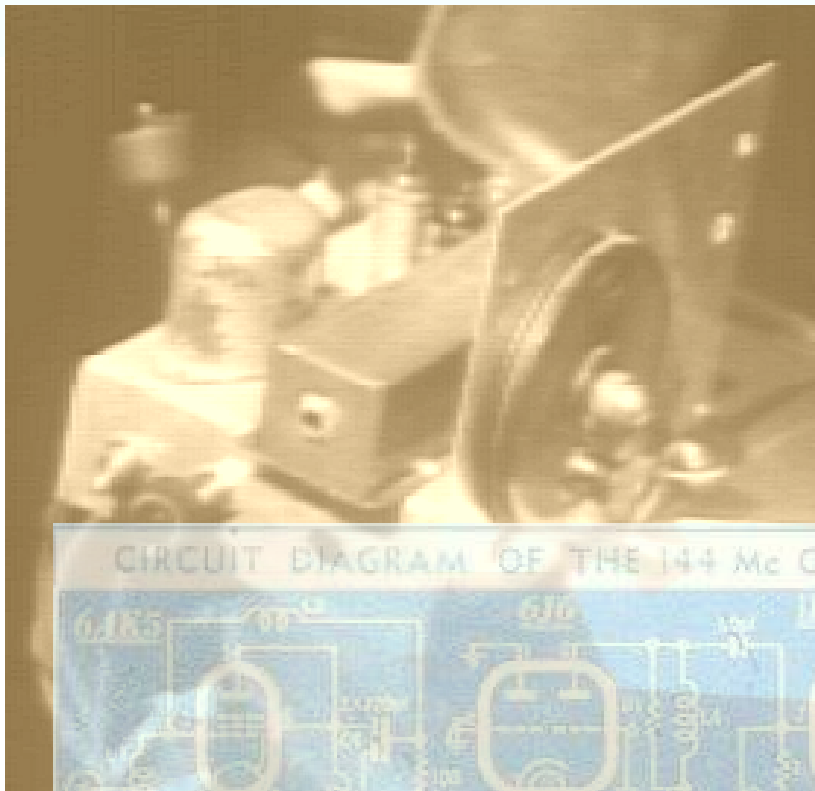


# Circuits, solder and JD

## 1944 to 1995



I dedicate this book to Joshua  
D'Alton our first grandson, a  
clever boy.

May 2005 by John C.E. D'Alton Toowong Queensland  
Australia.

I produced this book 2005 “Circuits, Solder and JD” using  
OpenOffice.Org (OOo) an Open Source Software application.

I scanned images with my Olympic colour scanner.

Later images I took with my Nikon E4100 digital camera.

I edited images with The GIMP, another Open Source  
Software application.

I printed it with my Lexmark Z25 colour printer.

I Exported it as a PDF directly from OOO, the filename is;  
“Circuits\_Solder\_and\_JD09C.PDF” which is available from  
my Web site at;

[www.paradox.com.au/~jcdalton/JCED15.htm](http://www.paradox.com.au/~jcdalton/JCED15.htm)



Victoria is where my electronics life commenced



*Manufactured the year I was born*

## I lived in Officer, Victoria

I was born in Hobart, Tasmania in 1936. Mum and step-father (dad) moved to Victoria and I continued my schooling, grade 1 (year 1) in Melbourne. We moved about three times until dad bought a 10 acre farm with house in Officer.

## We moved to Officer.

Officer comprised the post-office, a general store, primary school which I attended, a hall, garage and railway station. There were a couple of other businesses that I can't remember. There were many apple orchards also, one that dad worked at. Officer is on the main highway number one or Princess Highway heading from Melbourne to East Gippsland. A very busy and important part of Australia.



*Our little home in Officer*

1944

1945

## Tape Recording

An American John Mullin found Magnetophones at Radio Frankfurt in Germany with 1000mt reels, 6.5mm ferric coated BASF tape with a twenty minute capacity. He sent two machines to the U.S. With fifty reels of tape. This speeded up the work on the media which had been invented by a German named Dr. Fritz Pfleumer.

1946

I was in my sixth year at the Officer State Primary School and somehow became interested in electronics. Perhaps it was something that happened at school that started the ball rolling. I just do not remember! We were too poor to buy magazines and we didn't go to any libraries which would have been in Pakenham or Berwick anyway, too far for me to ride my bike on my own. Dad used to buy the Melbourne newspaper I think called The Argus. I used to make little electrical things such as a cell and a light globe. I used to like seeing the globe light up. I controlled it myself.

**Circuits, solder and JD**

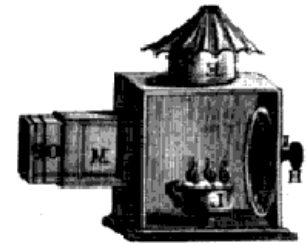
I remember I used to see magic lantern slides at the local hall and I loved the beautiful colours of them. There were picture theatres in Pakenham and Berwick but I didn't go to them. I suppose it was too expensive and I wasn't allowed to ride my bike there anyway unlike my step-sister Jill who was five years older than I.



*Me and my blonde hair*

## 1947 Dandenong High School

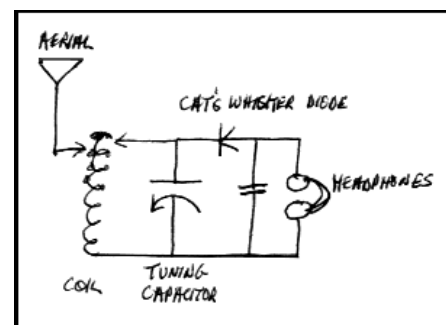
I commenced my secondary schooling at the Dandenong High school which is about 20km SE of Melbourne. I was 11 years old. I don't remember but it would have been the previous year or this year that I read an article in The Argus newspaper about building a crystal set.



*A lantern slide projector*

## Crystal Set

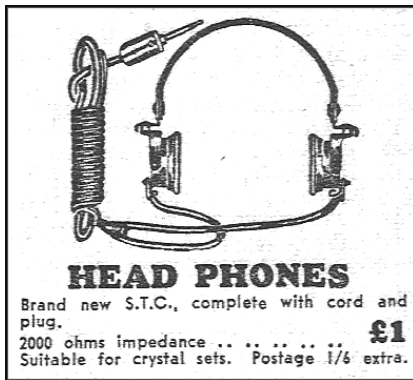
I don't have a photo of it and don't remember what I built it on but I suspect on a piece of apple box board. I don't even remember where I bought the electronic materials from but mum probably took me to Melbourne and I may have purchased parts from Collins Radio in Lonsdale Street.



*Circuit of a crystal set*

A crystal set can be built to receive signals on long wave to HF, about 500kHz to 30MHz. This one was for the broadcast band AM. Wire to make the coil, a tuning capacitor (then called condenser), a crystal cats whisker unit and another capacitor. The headphones I purchased by mail from Deitch Brothers in Sydney which cost about \$2 (then £1) which was a lot of money. I had been buying an occasional Radio and Hobbies magazine and would have seen the advertisement there. They arrived many days after I posted the letter with the money. That same day mum and dad decided to go for one of our very rare drives by car to the beach at Frankston. I was glad to get back home to connect my new headphones and listen to my crystal set. I was so excited when I heard the radio stations.

Crystal receivers do not amplify the signals so one needs to be either close to a transmitter or have a long and high wire strung outside, tens of metres long and 10mt high. Officer is about 40km from the Melbourne transmitters so I probably heard most of the stations.



*The type of headphones I bought*

This very basic crystal set provides not much selectivity so one can hear two or more stations at the same time. In any case I would have been very excited!

*An Argus newspaper radio article*

Life was still rough as many things were still rationed, clothing, food and petrol.

1948

There were plenty of electronic equipment and parts suppliers and shops. As it wasn't many years since the end of WWII in 1945, there was a lot of ex army, navy and air force equipment which was called disposals items.

### Names of suppliers/businesses

Prices Radio, Waltham Trading Co., Motor Spares Ltd., Surplus Stores, Classic Radio, Metropolitan Radio Suppliers, Collins Radio, A.C.E Radio and many others. Most were in Melbourne and Sydney.

I came by a telephone hand wound generator, the type that were built into telephones which I took to the High School one day or perhaps on more than one day. I connected it to two wires of a fence that students used to climb through. When a boy climbed through I wound the generator to give him a mild but not dangerous shock. I left school in December 1948 which meant I passed the Intermediate year but I did not continue to the equivalent to Queensland's Senior level.



*Dad and myself*

1949

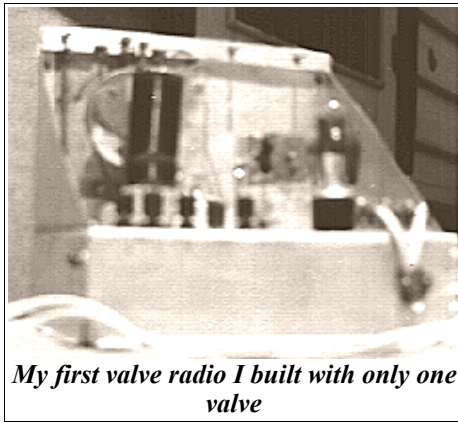
### My first valve radio

*My one valve radio*

I think it was during 1949 or later that I built my first radio which used just one valve and was operated by batteries. I made a proper chassis out of a kerosene tin using a pair of scissors or tin snips. I bought the parts from parts stores in Melbourne and Sydney. Collins Radio in Melbourne was well known at the time.

The photo here shows the rear view, the one valve, five terminals and a plug-in coil on the left side. For the benefit of young readers, a valve is like a transistor or chip inside a glass tube. Very primitive by today's high technology standard.

In 1948  
Columbia  
introduced  
the first  
30cm (12  
inch) 331/3  
RPM

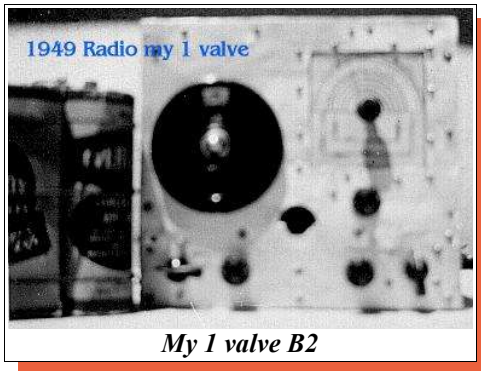


*My first valve radio I built with only one valve*

microgroove LP vinyl record. This started a record speed and size “war”.

I made this radio using kerosene tin which I cut with tin snips. I don't think I or dad had a small hand drill so I used a nail and a hammer to punch the various holes. There is a wooden strip along the top of the front panel which was used to strengthen the thin tin front panel.

Again I can't remember where or how I obtained the parts but most likely by mail. The most exciting part was when I first opened the valve carton which was a 1J6GT type, a triode on an octal base. It looked great with the silver getter on the inside of the glass which of course I did not know what it was at that time. Something is done during manufacture of valves to remove air which leaves a silver lining on the inside of the glass. It used one 45volt battery for the valve's high voltage line and one 1.5volt battery for the valve filament and dial lamp. It would have been very basic super-regenerative one with bandsread.



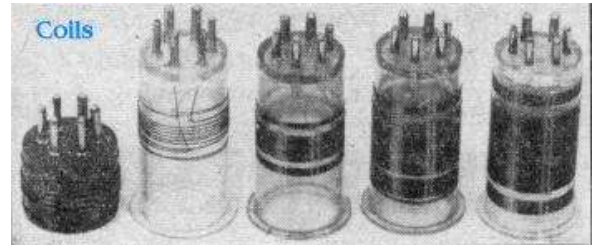
*My 1 valve B2*

1950

With my valve radio I was listening to the broadcast stations on the AM band as well as shortwave stations around the world on the SW bands and sending reports to them. This meant that I was a Shortwave Listener (SWL). In August I sent a report to Radio New Zealand and received their QSL within days. I was very excited. Below is a scan of the first entry in my Short Wave Listening book which was for Radio New Zealand, the entry August 1950. I was 14 ½ by then.

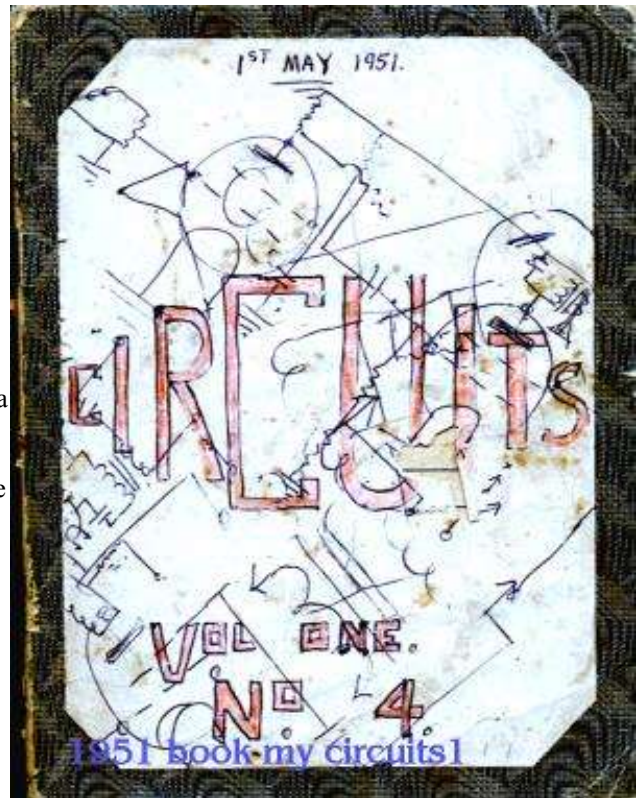
1951

I cannot remember how many weeks or months it was into the new year, one day Mum said, “I’ve got you a



*Plugin coils for my receiver*

job”. It was at the local post-office. I would be a TELEPHONIST. I think I was frightened at the time because I was shy and I didn’t like the idea of leaving the safe confines of home and go to a place and talk to other



*My first SWL book*

people, adults at that, scary!

My first job, a Telephonist

Our home was 1.5 km (1 mile) from the little town of Officer. But Officer was a very small town as I have said so there were only fifty two subscribers connected to Officer’s post-office telephone system, only fifty two people with ‘phones. I had to sign a special declaration that meant that I would not divulge anything that I heard on the telephone. I then became a Commonwealth Public Servant working for the Postmaster Generals Department. This was changed decades later to two sections now known as Telstra and Australia Post.

So off to work I went.

The switchboard was not as big as the one in the picture but nevertheless it was daunting for me at first. The top part has the little dropdown lids indicating which subscriber was calling. The black and metal phone 6mm plug I plugged into to the socket for that call then a key moved to talk and hear the callers voice. The switch is in front of the plug for the caller's plug which has been plugged into it's socket. When the caller stated the number required the coinciding plug was



Telephone switchboard

was not given within a few seconds I just pulled one of the plugs so disconnection the parties. Simple! Telephone lines were in short supply so time was valuable. No excuses were excepted. If the calling person who was paying for the call answered "yes" then I pushed the switch back to neutral and pressed the time clock for another three minutes.

Calls outside Officer were rare as I have just said and had to be booked. Sometimes I couldn't contact the other exchange for a quarter of an hour or so. When I did contact the exchange if the telephonist at the exchange was able she could connect me to that number so I could connect my caller. If not then the exchange 'phoned me later, could be up to an hour and I could connect my caller. So complicated compared to today's world wide immediate system.

Above the switchboard was a small Kriesler radio that I used to listen to a lot. As a teenager of course I would listen to the pop music hit parades. As I had also become interested in Amateur Radio I listened to the shortwave bands.

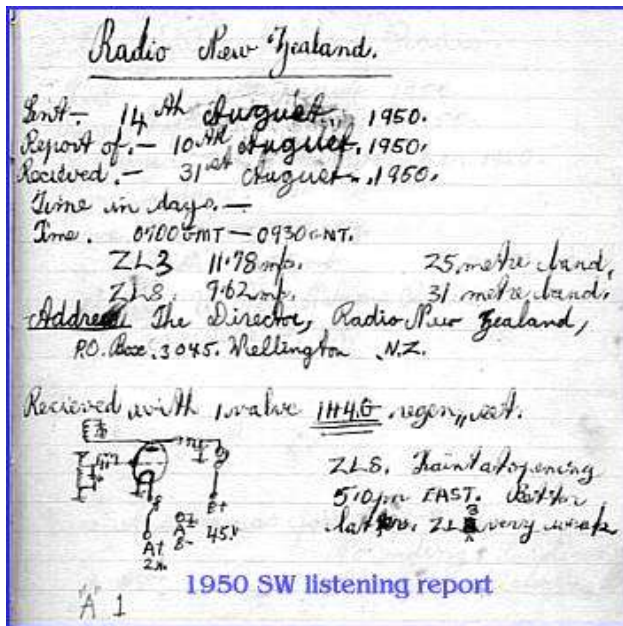
I do not know how long I worked at the Post Office, it was until Mum and Dad sold our Officer home and farm. It meant that I was no longer a burden on Mum and Dad. It also meant that I could pursue my radio hobby.



A Kriesler radio at the Post Office

In May I commenced study of a Radio Servicing Course by mail. The advertisement included this photo of a man servicing a piece of equipment which turned out to be the test equipment that I would receive during the course. I was very much influenced by the ARC advertisements and the photos of such equipment.

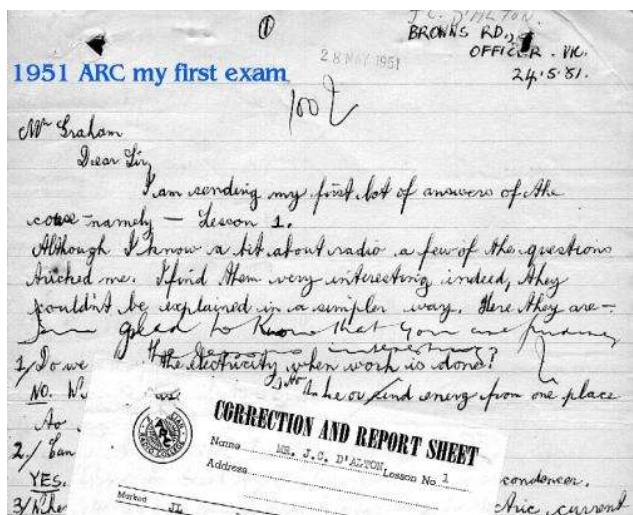
The school was in Sydney and still exists, called The Australian Radio College (A.R.C).



My first entry in my SWL book

plugged into the socket of the number being called. I then turned the rotary generator a couple of turns to ring the number. If it was a local number it was one of the other sockets above, in the red part. If it was a long distance (STD) number then I had three exchanges to choose from. Pakenham East, Berwick and Dandenong. To call them I turned the rotary generator using a series of ring codes, different for each one.

People didn't 'phone people outside of the Officer area as calls were quite expensive. Such calls were timed by me pressing a lever on the clock above the number flip lids. When three minutes was up I used to break into the conversation by pressing the switch for that call and say "Three minutes are you extending?" If I was not given an answer within a few seconds I said it again. If an answer



My first ARC answer sheet

My first lesson answers are dated 24.5'51 with 100% correct. I could send my answers to the lessons to ARC at my own pace but was about once or twice per month.

With the course from time to time they sent me pieces to build up a setup that included test equipment. It was very interesting and most helpful.



*Advert by ARC*

Then Mum and Dad sold the farm and house and bought a caravan. They intended to travel all the way around Australia. So I tore out important pages of the magazine called RADIO and HOBBIES to keep because we would not have much room in the caravan. We headed for Adelaide from here. It was exciting.

At sometime I had acquired a 4 or 5 valve portable radio so I could listen to pop songs. It didn't have shortwave bands for me to listen to the Hams.

## Adelaide Philips

One day Mum and Dad took me to the Philips factory at Hendon near Adelaide. I think I was looking for work as an apprentice. I was shown how cables were fitted to equipment racks but I can't remember why I didn't get a position. Perhaps I didn't want the work. In later years I did work for Philips which you will read later in this book. Then we went to Loxton and picked grapes and other fruit. I continued my ARC studies and sent my answers to them from time to time. From there in mum and dad's caravan we travelled to Mildura, Albury, Canberra and Sydney. By then it was 1952.

## 1952

During 1952 we travelled to Canberra and Sydney.

Somehow I got the idea I wanted to stay in Sydney while Mum and Dad continued travelling up to Queensland.

## Sydney

They found me a place to live which was in a nice quiet home owned by an old woman and her daughter situated in Arncliffe. This is an inner suburb of Sydney on the main highway south to Melbourne, about 8 km from the city.

## The Kriesler Factory

I was very lucky to get a job at the Kriesler Radio

factory as it was during a recession and unemployment was high, not that I knew then.

I started on the 19th of May which was only one week from the time we arrived in Sydney. My pay was £3.19.00 (\$7.90) per week. The cutting from a newspaper below gives an indication of the hard times just passing.

I cannot show a logo of Kriesler because I do not think there ever was one. The factory was situated in Alice Street Newtown although I always thought it was in St. Peters

because that was the railway station I travelled to and from each day. St.Peters station is only two railway stations closer to Sydney than my new home at Arncliffe.

My job here at first was to assemble power transformers. The transformers that I helped make were most likely also used in the tablegram.

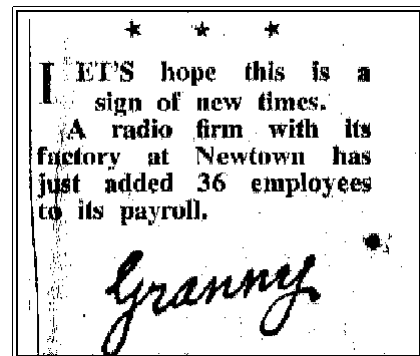
The copper wire was wound onto a paper former and I had to put two laminations into the former then two in the other opposite direction, repeating this several times until there was no room remaining. Another job which I liked that I did at Kriesler was welding the cases of the transformers together. These were for as far as I can remember for a mantle radio 11-20 as pictured here. They

were a very popular little four valve shortwave and medium wave unit. Technically it was a *superhet*. I also did something for a table radiogram similar to the one shown here. I think I sprayed the motorboard with a brown



*Kriesler 11-25 tablegram*

fuzzy material. At a later time I did some assembly work on radios and radiograms. The unit that played a record was called a record changer as in most cases it was a multi record playing device. Some models were fitted with BSR or Garrard units, both companies being British. The radiogram was a new design. I must point out that records



*Krieslar 11-20 Bakelite mantel radio*



then were 30cm (12 inch) and 25cm (10 inch) diameter and played at 78 RPM (revolutions per minute).

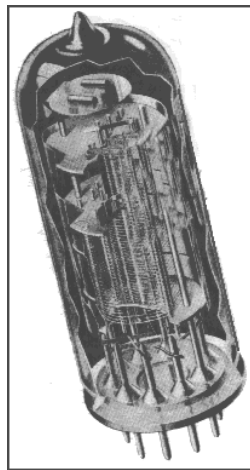
I enjoyed working there as I was working in the environment that I desired. About this time I applied for work at the PMG (today called Telstra and Australia Post) but I have no record as to what the work would have been or how I applied.

One day I travelled by train to Kogarah which is a big suburb on the same line as Arncliffe, about 10km away. I bought an old radio which was an STC, an Australian company, from a radio shop. Here is a photo of an old console that gives the reader an idea of its size. About 1mt in height, the loudspeaker as shown in the inside view I think would be a 30cm diameter one. I point out that television was still in the thinking stage at this time. The height would be about waist high.



1937-39. Armstrong C5 inside

It was probably a 1930s model, a big floor console



A nine pin valve

type as they were known standing about waist high.

So I humped it home on a train. I purchased a Scope soldering iron so I could do soldering. In the weeks to come I experimented on this old radio. It was good because I could use it in relation to my ARC course. I still have my notes in a school book of the experiments I did by changing various components. I must have had a fun time. It would have helped me with my ARC course. Here is an advertisement I put into my ARC Student's Newsletter about selling valves and exchanging parts. I saw many electronic parts in the factory and shops but I could not afford to purchase such things. I really was only existing!

My wage was about £3.19.00 (\$7.90), my board was about \$6.00 and added to that was my train cost to work so there was not much left over.

Occasionally I could afford to buy a packet of biscuits. I advertised in a newspaper that I could shop for radio parts for country people, see the photo of the cutting. The word "Mantel" are what small radios

were called that could be placed on a mantel piece. A mantelpiece is the little shelf above a fireplace.

I made friends with a radio amateur (ham), and attended a couple of WIA (Wireless Institute of

Australia) meetings which indicated that I was very interested in becoming one also. On one occasion I visited one Ham I saw the early test transmissions of television on his home built equipment. It used a 5BP1 oscilloscope tube which had a green screen and only about 12 cm diameter. It was primitive but at least one could see TV even if in a green colour.

About this time I had already built a couple of sections into the ARC test unit, being the multimeter and an audio oscillator.

In the October issue of Radio and Hobbies was an article about the first link up of television of two countries being England and France. In the same issue was an article "Don't be scared of Valves!". It was about building a valve radio using a 3S4 battery audio valve.

The new valves were smaller than the older octal valves being about 25mm diameter and 70mm to 100mm long. The new valves were seven and nine pin units.



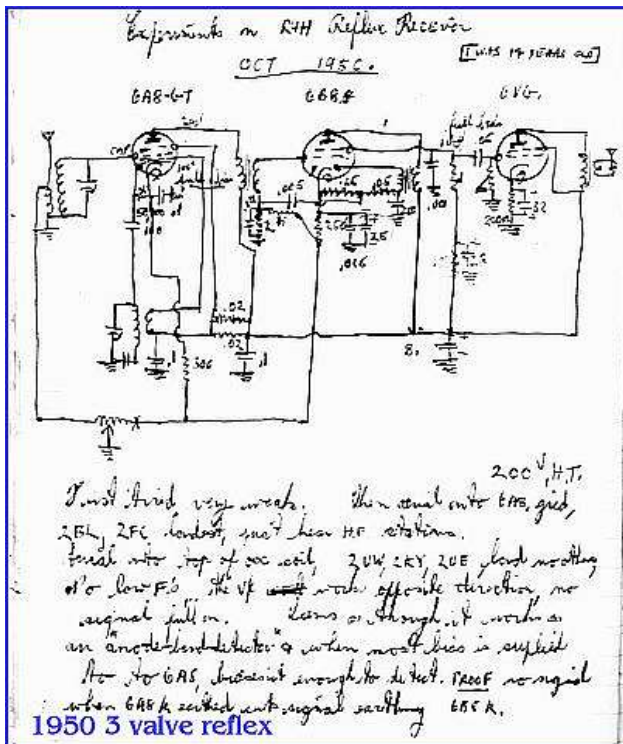
Scope soldering iron

**FOR SALE: 1952 my advert**

Miniature battery type valves and ordinary octal based battery valves. Price—from 7/- each. Also portable receiver cabinet, loop aerial and other parts. Wanted, or will exchange some of the above parts for, a power transformer and indirectly heated rectifier.

Write to J. C. E. D'Alton, 20 Brennans Rd., Arncliffe, N.S.W., Australia, for particulars.

*An advert I put in the ARC newsletter*



Circuit of a 3 valve receiver I experimented on

After some months the recession was coming to an end but I could not save any money. I was not earning enough money because I don't think that I deposited any in the bank so I decided to follow mum and dad and go to Brisbane to live with them. Mum and dad had bought a block of land at Clontarf and were going to build a house so I made up my mind to move up to Brisbane. I remember mum saying that the climate was so good that most of the time Dad wore shorts. I left Kriesler on the 24th of October. I packed my radio gear into something, probably a box and sent it to Brisbane by Goods train. I left Sydney on the 30th of October by train.

## Off to Brisbane Queensland

I arrived in Brisbane on the the 31st of October 1952. I travelled up by train. It was so hot that I could hardly believe it.

## Brisbane

On Monday the 17th of November I went to a Commonwealth Employment Office (CEO) which I can't remember whether it was in Redcliffe or Brisbane. They gave me a short test, probably an IQ or aptitude test. They then told me to go to Mr Quin at Radio Corporation in Brisbane. On Thursday the 20th of November I went into Radio Corporation (Astor Radio) for an interview.

## Radio Corporation

Radio Corporation was an all Australian company with the Head Office in Melbourne about the same size as AWA. It was the manufacturer of one of the most popular brands of home radio equipment under the name ASTOR. The logo was a swan. That was in the days when Australia made perhaps most of our electrical goods such as radios, refrigerators, toasters and clothing, cars etc. Now that has all changed.

I was interviewed by the service manager Mr Wally Quin. When I told him that we (mum and dad) had an Astor car radio in our car, he commented rather favourably. At that time I did not know that Radio Corp. made Astor radios. So I had a new



The Astor logo

job. The photo of a car radio shown here is an Airchief but they were manufactured by Radio Corporation in later years, the same radio with a different badge.

I suppose I told him that I was doing the Australian Radio College radio course. My job was to receive peoples faulty radios, to book the jobs in. Also answer the

'phone. Thirdly to work in the spare parts store, issuing parts to the service technicians in the workshop and filling orders of service parts for dealers all over Queensland and northern NSW.

## Radio Corporation

On Tuesday the 25th of November 1952 I received a letter from the CEO telling me to start next Monday the 1st of December and I would be on probation for one month.

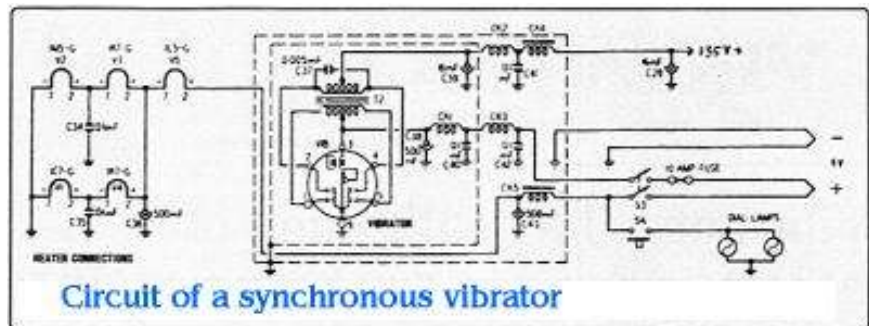
So it only took a few days to find a job and one to my liking. Not like the struggle people have these days. My pay was to start at £5.10.00

(\$11.00) per week. So much more than I was receiving at Kriesler. Radio Corporation was as big as AWA in those days, solely owned by Australians. The head office was in Melbourne.

Radio Corporation was an L shape around the still existing Spring Hill Hotel. The part that I worked in was the service section on the Leichardt Street side. The main office and the sales section was in Little Edward Street. As I mentioned earlier, the boss was Wally Quin and 2IC was Ken Bateman. My job was to be as I mentioned before, receptionist, to book in radios for repair, book in peoples cars to have a car radio installed and work in the spare parts store.



Airchief car radio



Circuit of a synchronous vibrator

Circuit of a synchronous vibrator

I started each day at 8.30 am, had 30 minutes for lunch and finished at 5.00 pm. Of course I had morning and afternoon tea of about 10 minutes each.



goodness as it was impossible to remove engine noise as I think the body was made of fibre glass.

Astor used to publish an A5 size Bulletin which is pictured here.



*A Goggomobile*

My work in the spare parts storeroom was to issue the technicians with parts. I also received orders from dealers in Queensland and Northern NSW, did the paperwork, wrapped and posted the parcels.

A Radio Corporation workshop and office was located in each state. We had a lot of contact with agents for Astor products. To go to work I rode a push bike to a Hornibrook Bus stop about 2km away, about 300m from the Clontarf end of the Hornibrook Bridge. At that time the bridge was a toll bridge. The bus terminated at the Sandgate Railway Station where I caught a train and detrained at Brisbane Central Station. Sometime during the year England and France commenced television transmissions. I was still doing my ARC course and



*ARC service unit in a Service Box*

learning plenty. Here is a picture of the metal panel fitted into a portable case which cost extra. I received the panel only and fitted the parts to it as I continued the course.

## 1953

I was accepted at Radio Corp. because I was still working there well into 1953. I think Mr. Quin would have told me but I don't remember the occasion.

In March I built a four valve radio, a superhet which was a big leap forward as I was learning a lot at work. As my image of the circuit shows it used a 1A7GT in the RF section, a 1T4 IF stage, a 1S5 detector and a 3S4 audio output. The power supply was two 45volt dry cell batteries and a 1.5 volt dry cell. I think it worked as well as factory built units. In the right hand bottom corner can be seen a little box with details and my initials which is the usual procedure on circuit drawings. The date shown is March when the 240v mains power had not yet been connected to our house. I helped dad and a chap named Mick Tivendale who was a carpenter to build our home at Clontarf. A very



*My Radio Shack - servicing and VK4ZAG*

modest home.

By now I was doing an occasional simple repair job in the radio installation yard then doing installations by myself. Many of the car radio faults were the vibrators that were intermittent starting or not starting at all. With the Airchief/Astor JL and JM models it was simply a matter of pulling the front section away so one could easily get to remove and replace the vibrator.

The power (240volt) to mum and dad's home was connected in



June which meant I was able to do much more with my electronics endeavours.

In October I sent my answers to the final exam paper of the ARC. But I did not pass although I was so confident at the time I thought I would not have any problems except for a couple of rather difficult mathematical calculations. They suggested I study again reviewing the entire course and try again but I did not. Looking back I don't think my electronics life has been affected by me not passing the final examination. I would have received a Certificate which would have been nice to put on show in later years.

I built another section of my ARC service unit this being a signal tracer. A signal tracer is used for tracing audio and radio frequency waves. Because electronics was simpler in those days one did a lot of signal tracing to find out if signals were moving through different parts. Now most signals are digital. I started on my Ham equipment rack which I built from timber but not as wide as the industry standard which is 19 inches (48cm). See the photo below.

I built a simple reel-to-reel tape player which fitted over my record player. The image here is of a commercial unit but mine did look similar. It was placed over the centre spindle of the turntable which spun in an anti-clockwise direction so the tape moved from right to left. From the right hand spool to the left hand spool. This is the opposite to tape recorders these days.



**Reel to reel tape player**

### 1954

I bought an AJS motorcycle, a 250cc British built motorcycle. I built a radio for it in a small metal box which I think was a four or five valve superhet which I listened with headphones built into my soft helmet, which were used by aeroplane pilots decades before. The bike vibration caused me plenty of problems as I was constantly resoldering joints and fastening nuts and bolts. There were no rear wheel shock absorbers on motorbikes those days. The radio measured 16cm x 13cm x 10cm high. It was a superhet using two 1T4s, a 1R5, a 1S5 and a 3S4, the usual arrangement. I had batteries in my saddle bags, 1.5 v and 90 v for the power supply.

### My first car, a Renault

After a minor accident on my AJS I purchased my first car, a Renault 750 costing me about \$600.00. I sold the AJS for \$360.00.

### 1955

I built up quite a bit of radio equipment into my rack and some being Amateur radio gear as I was studying by myself so I could obtain a licence. The bench I originally built all the same waist height but later cut the right side

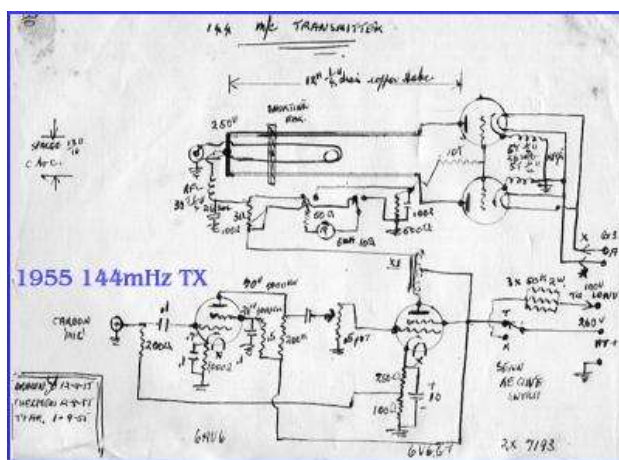


**My Renault 750**

down lower which was more

comfortable for Amateur (Ham) contact use. This can be seen in the photograph.

This was in my bedroom with my bed I think on the opposite side of the room. A window was on the right of the bench. The new equipment rack is on the right side, on

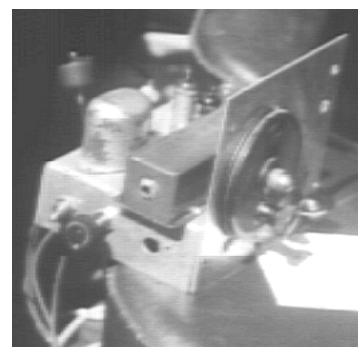


**Circuit of one of my 2 metre transmitters**

the low part are the receivers, above is my 6 metre transmitter. To its left top left of the photo is part of my ARC service panel where the multimeter and signal generator to its right can be seen. To its right is my 2 mt transmitter. On the lower section to the left of the main rack is a HF receiver and I think my 2 mt receiver.

I think I had quite a good setup. The ARC service panel was the only commercially built piece. I did a few simple service jobs for friends and neighbours. I still have a little receipt book where some entries (receipts I gave people) I charged as little as £1.00.00 (\$2.00) and up to about £5.00.00 (\$10.00) big money then, well big for me.

In September I built a 144 MHz (2 mt) transmitter consisting of a 6AU6 microphone amplifier, a 6V6GT modulator and two 7193s RF Transmitter.



**2 mt transmitter**

I was close to becoming a Ham! At the time to obtain a Limited Licence one didn't have to learn morse code for transmitting frequencies below 144 MHz (2 mt). I had been teaching myself morse code during the previous couple of years because I remember when I used to ride my AJS motorbike to Radio Corp. I used to sound out the dits and dahs of the words of the overhead advertising signs on the the Hornibrook Bridge from Clontarf to Brighton. Of course plenty of other times also.

Printed circuit boards were being used in electronic equipment but not where I was working.

1956

## Radio Amateur

On the 24th of January I was issued with the call sign VK4ZAG for my AOLCP licence!

Ripper!

I do not remember where I sat for the exam but possibly in Brisbane at a PMG Radio office. I think it was a fairly easy examination.

## My first contact

My first official contact was on the 3th of January to Ces VK4ZAB on 2 mt, 144.8 MHz. What excitement. At that time many electrical value words were different than what they are today. Frequency was designated in cycles or CS or C/S . Now it is called Hertz or Hz named after an electronics pioneer. I think the transmitter used a single 6J6 which gave an RF output of about 3 watts. Flea power. From then on it was full steam ahead regarding Ham radio. I gained many new friends via Ham radio but none becoming long time friends.

## John a Nasho

I only got going on Ham radio when I was called up to do my National Service. On the 26th of April I commenced my National Service in the Australian Army. We were called Nasho's for short. Every young man was called up but I think a few were exempt due to religious reasons. I was stationed at Wacol on the southern side of the Brisbane to Ipswich road. It was a big shock to me and also to many others with very strict discipline and hard work.



Private D'Alton

On the first leave weekend I went home to Clontarf and drove my Renault 750 back to the camp and parked it somewhere on the base. I don't remember where. I had many contacts (QSOs) during my time as a Nasho. We were only called up for three months so my stint ended on the 1st day of August 1956.



1956 Pte D'Alton, John C.E.

Private J.C.E D'Alton

## Radio shop work

Somehow I got some part time work at a radio repair shop in Clontarf. I made and installed a new type radio

Regulation 40 A  
Form W.121

Certificate No. 173

COMMONWEALTH OF AUSTRALIA  
Wireless Telegraphy Regulations

**AMATEUR OPERATOR'S  
Limited  
Certificate of Proficiency**

This is to certify that John Charles Edward D'ALTON has satisfied me that he possesses the knowledge and qualifications specified hereunder, namely:—

(i) A knowledge of wireless telephony and electrical principles; and  
(ii) A knowledge of such of the Radiocommunication Regulations annexed to the Telecommunications Convention and the Wireless Telegraphy Regulations as relate to the operation of amateur stations using Wireless Telegraphy.

Dated this 26th day of January, 1956.

By direction of the Postmaster-General,  
*J. J. Leonard*  
for Director-General, Posts and Telegraphs.

Controlling Officer—  
*F. A. Jurch*  
for Controller, Radio Branch.

Date 27/1/56

Signature of holder—  
*J. C. E. D'Alton*

Date of Birth 6th January, 1934 Place of Birth Hobart, Tasmania

NOTE—This Certificate may be cancelled or suspended, at the direction of the Postmaster-General, in case of misconduct, or being at the time of issue in contravention of the Wireless Telegraphy Act 1926, 1930 or 1934.

G.W.E. 200

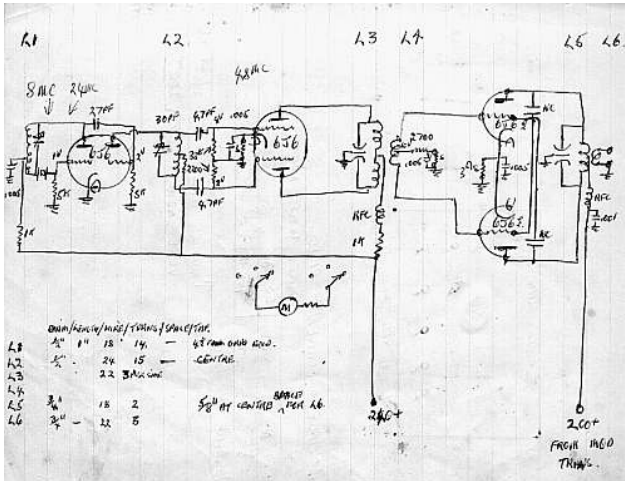
W. A. Mccormy, Government Printer, Melbourne. (B) 111

**VK4ZAG Licence**

antenna for 2 mt called a 5 over 5 because it had five horizontal elements on two bars, one above the other.

I couldn't afford aluminium tubing for the parts where the beam elements were fitted so I used timber. The microphone I used was a carbon one similar to the early telephone mics which were much less expensive than other types. I actually made my first carbon mic myself. I used to go on transmitter hunts. Another Ham went to a location within Brisbane and set the transmitter running continuously with a tone. We hunters would use a little directional beam antenna to locate it. I think the frequency used was in the 2mt (144MHz) band.

## Crossband



**My first 2mt transmitter**

The normal operation of a Ham station was conducted on one band. That is both transmission and reception was on the same band, on the same frequency or different frequencies. One is transmitting while the other is receiving. In November VK4OB and I conducted a crossband contact, he transmitted on 7035 mc (MHz) on the 40 mt band and I transmitted on the 2 mt band. VK4OB had a full licence which made it possible. About 30 minutes before he contacted me on 2mt so we could arrange it.

In September the first full time Australian Television transmission commenced from QTQ9 in Sydney. The ABC, channel 7 commenced soon after ready for the 1956 Olympic Games in Melbourne.

## 1957

During the year I received a letter from the PMG informing me that we limited licence Hams could use a lower frequency Ham band, the commonly called 6 metre band, 56 to 60 Mc/s (MHz). So I decided I would use this band also.

I started another hobby which was photography, developing and printing my own negatives and prints. I took some photos at Clontarf to use as QSL cards. A QSL is normally sent to the other person of the contact.

Communications for we Hams with low RF power, usually in a few tens of watts allowed contact within about line of sight or to the horizon at most. Most of my contacts were with Hams in the Brisbane area, Redcliffe to Southport to Ipswich and then only by the other Ham and I rotating our beam antennas to point at each other. Not all Hams could rotate their beams so communication was rather restricted.



**My 2 mt 5 over 5 antenna**

Rich Hams had an electric motor that turned their beams. The older full ticket HF band Hams usually had rotating beams which was necessary when communicating with Hams around the world on HF.

In June my activities work and Ham wise took another back step when I did two weeks army training as I was then a member of the Citizens Military Force (CMF) at Greenbank. After we completed our three months as a Nasho one then became a member of the CMF.

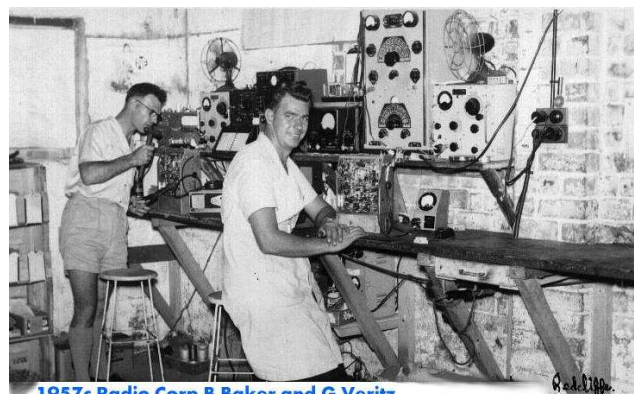
## Narangba

In August dad, mum and I shifted from Clontarf to Narangba to a block of land about 20 hectares in size. It had a very modest house built on it. Dad wanted to have some cows and do some farming. I was not too keen on the move because I was going to operate without 240 volt power again.

In June before we actually move dad and I set up in the back yard an old petrol motor with a 12 volt generator which I connected to charge batteries. It was an old one cylinder motor which made a lot of noise and jumped around which we had trouble fixing it to one place.

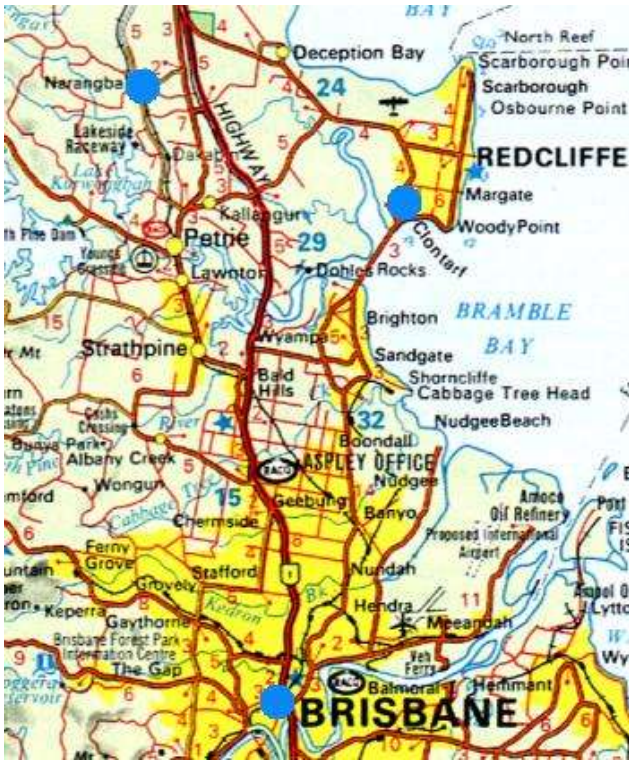
By the time we moved in I had run wiring around most of the little house just for the lighting, 12 volt bulbs.

My Ham station power was supplied from 12 volt batteries then one or two genemotors. I had my first contact from Narangba with Mick Pettiford, VK4ZAA. Mick lived at Shorncliffe who was one of my first Ham friends. I think his call sign appears more than any other Ham in my logbook. About this time a new idea of changing a station on a car radio was developed. It was built around the mechanism of a push button tuner radio where one pushed one of about five buttons which mechanically moved the tuning coils to tune to a radio station. The mechanism was a solenoid which moved the tuning unit. A big switch fitted to the floor of the car was pressed that worked the mechanism. Press the foot switch once and the tuner tuned into the next station. Press it again for the next station. Press it four times and the mechanism tuned to the fourth station. And so. But the device was not too successful because the mechanical thumping did not treat the radio too well. The foot switch was similar to the old car headlight dip switch.



**1957c Radio Corp B Baker and G Veritz**

**In Radio Corporation's taxi radio workshop**



*Brisbane to Narangba*

1958

In February a Radio inspector inspected my Ham station which was passed as OK!

His signature is the last entry in my Logbook until 1960.

Below is the official and I think worldwide phonetic alphabet. I often used “very keen four zulus after girls” as my call sign.

PHONETIC ALPHABET.

When using telephony, call signs are liable to be misunderstood on account of phonetic similarity. To overcome this difficulty, phonetic alphabets have been introduced. The following table is suggested as being most suitable for use by amateur station licensees:-

Letter	Word	Pronunciation
A	ALFA	AL fah
B	BRAVO	BRAH voh
C	CHARLIE	CHAR lee
D	DELTA	DELL tah
E	ECHO	ECK oh
F	FOXTROT	FOKS trot
G	GOLF	GOLF
H	HOTEL	hoh TELL
I	INDIA	IN dee ah
J	JULIET	JEW lee ETT
K	KILO	KEY loh
L	LIMA	LEE mah
M	MIKE	MIKE
N	NOVEMBER	no VEM ber
O	OSCAR	OSS cah
P	PAPA	pah PAH
Q	QUEBEC	Kwee BECK
R	ROMEO	ROW me oh
S	SIERRA	see AIR rah
T	TANGO	TANG go

U	UNIFORM	YOU nee form
V	VICTOR	VIK tah
W	WHISKEY	WISS key
X	X-RAY	ECKS ray
Y	YANKEE	YANG key
Z	ZULU	ZOO loo

My Ham activities were on hold because of the situation of not having 240v power and I became interested in girls.

I purchased a Philips portable transistor record player. I don't know much about it other than it played 45 RPM and possibly 78 RPM and 33 RPM records.

The record technology was changing, the formats of the discs or records as we called them at the time. The new portable record players allowed the playing of records anywhere. New record companies were popping up all over the world. Here in Australia there were companies such as; Australian Record Co., Carina Records Pty. Ltd., E.M.I, Festival Records Pty. Ltd., R.C.A., Phonogram Pty. Ltd., W.E.A. Records Pty. Ltd. and Summit Records Australia. These companies used different label names on their records, about 250 names. E.M.I used Decca, Capitol etc., Festival used Hot Wax, Rocket and so on.

### TV lessons at work

These were conducted in the radio workshop at the rear of the building next to the car radio installation yard. I should have mentioned before that the whole place had been a bread bakehouse in earlier times and the ovens still existed at the rear. Gordon Veritz started at Astor sometime after I did. Two way radios were finally small enough to be installed in taxis which was done by Gordon and another mechanic by the name of Brian Baker. The radios were quite big, about 40cm wide and deep by about 12cm high. Of course there was enough room in Holdens to fit them. The antenna was mounted after a hole was cut in the centre of the car's roof. No temporary clips and clamps in those days. I remember that they had to be tuned to the antenna when refitted back into the taxi after being serviced. I think the taxi battery had to be replaced by a bigger one due to the high power required, many amperes.

Getting back to our TV lessons. These were conducted in the taxi radio workshop by Gordon Veritz and possibly by someone else. This is when I found out that my eyesight was no the best. I had problems when I was in Nasho service because I wondered why I couldn't see in the dark like the other soldiers. I could see vertical and horizontal lines such as capacitors but not the diagonal lines of resistors. I have worn spectacles ever since.

Other workers in our service installation section around that time were;

Ken Bateman, Keith Arthy, Max Allan and others I can't remember.

The main radio and appliance and music record store and state office was around the corner in Upper Edward Street.

I remember IF Transformers. The coils were wound on a plastic type former which used to shrink due to the heat in the radio. All service on radios included re-alignment being carried out on all coils because of the



problem. Most times the coil slugs could not be turned to tune them. Later new low voltage valves were used which helped in this regard.

### I shifted to Enoggera

In November I shifted to a work mate's home. Max Allan lived in Enoggera.

### I met Marie Ebert

I had been doing a lot of roller skating and learning ballroom dancing and no Ham radio. I met Marie Ebert at the Redcliffe skating rink which was about 70 mt east of the present jetty in the centre of Redcliffe.

### I purchased a Dauphine Renault

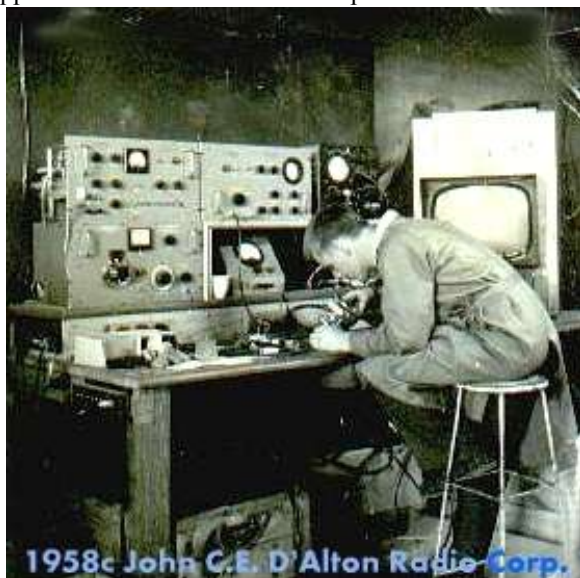
I paid £595.00.00 (\$1,190.00) for it at a used car sales yard.

This car was a luxury compared to the Renault 750 but I soon found out why it was a bit on the cheap side, it must have been in an crash because the front end was out of alignment and so it wore tyres out quickly.



*My Dauphine car  
1959*

It was about this time that our entire service and car radio installation section moved around the corner in Upper Edward Street into the new premises.



*1958c John C.E. D'Alton Radio Corp.*

*Myself in EIL TV workshop*

Electronic Industries Service

## Pty Ltd (EIL)

The name was changed to Electronic Industries Service Pty Ltd (EIL). It was so much bigger and ready to take on the onslaught of television servicing. At the front just inside the door was a big 2 mt high rack containing the TV workshop transmitter. Behind that along the southern wall was the TV service section. To the right was the spare parts store. Behind that was our radio service workshop. To the right from the back wall to the front big door was the car radio installation area. I think the taxi two way radio section was also there.

Upstairs were the offices. At the rear and on an upper floor was General Accessories (Gen Accs) which was managed by Ken Bateman.

### I became a radio technician

On the 11th of May I became a full time radio technician. It is no secret that I never started let alone complete an apprenticeship and to this day I don't know why. Life was simpler those days. I had done various types of work so I assume the bosses thought I was good enough to be one.

Our radio workshop had room for about eight technicians if I remember correctly. We had new friends, new people of all types. Office staff, technicians and apprentices. What a big change! An exciting time!

A couple of men were Terry (Tex) Barker and Allan Sutherland ( Fuzzy). We used to go swimming at the Spring Hill baths and at other places.

### Apprentices

Malcolm Aldred, Graham Buchanan and John Coats. Also Tex Barker who I shall mention later.

New low voltage valves were used in every place possible, it was quite a big step in technology particularly for car radios as the high voltage, 200 v or so, was not needed so the vibrator, transformer and rectifier valve were not needed so making for cooler radios. The coils did not need replacing as I mentioned previously. Radios such as the Astor HJL which used a 6ES6 RF, 6DS8 converter, 6DR8 IF amp and detector, 6BA6 AF pre-amp. Two transistors were used for the first time, a CK874 AF pre-amp and a CTP1 138 as the output. But now another problem cropped up, the radio had a polarity situation. Both positive and negative models were manufactured because of this.

### Negative or positive

The HJL was a negative to chassis unit.

The JQJ was a positive to chassis unit employing a 6ES6, 12AD6, 6ET6, 12FK6, CK874 and 2N301.

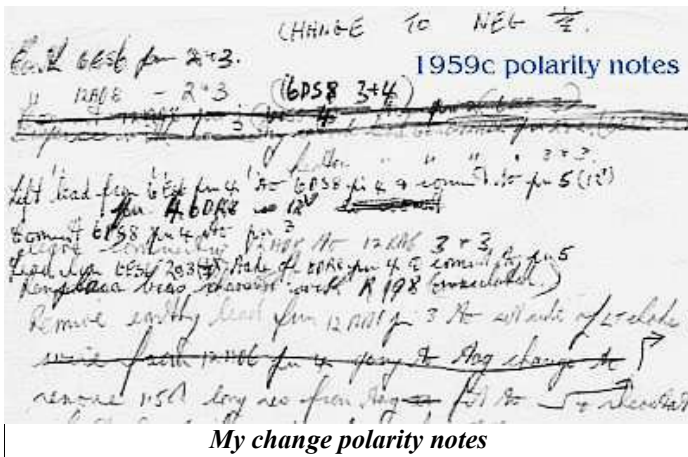
There were so many models being released that we found it hard to keep up. As the reader can see above, 12 volt and 6 volt valves were used. Not to mention the high voltage 6BA6. What a schmossel!

### Changing polarity

As cars were still being built using different polarities it was cheaper to change the polarity of a radio than buy a

new radio. At the time it was still normal to buy a car without radio installed, it was the choice of the purchaser

## QTQ9 TV



On the 16th of July QTQ9 commenced full-time operation in Brisbane with Hugh Cornish having the pleasure.



*An Astor SL B&W TV*

In September I bought an Astor portable TV on hire purchase, its cash price was £90.12.00 (\$181.20). The model was the SL, quite big and heavy, not really a portable as it was only 240 volt power

as it was a considerable cost added to the cars price. So we did that work. I have some drawings now that I drew to show what was done. It took a couple of hours to do the job.

### Bad insulated wire

About the same time there was another more serious problem. Some of the insulated wire used to go gooey and melt. The insulation, a rubber or plastic must have been badly manufactured and as far as I know most if not all Australian electronic equipment manufacturers were caught by this disaster. It was another job we performed on car, home and portable units.

I drew up diagrams and notes describing step by step. The image above is part of a page in my handwriting. This one in relation to the model BJL which was a positive to chassis unit. I had forgotten but Malcolm who I made contact again this year, 2004, reminded me that I insisted that if a wire was a red one then a red wire had to replace it. This applied to about five different coloured wires. It took about half a day to do the job which I think Astor did without cost to the customer. I may be incorrect here but that is my belief.

In February I shifted to a big boarding house in Wilston which cost me £4.7.6 (\$8.75) for a room per week.

I was doing some service work with Gordon Veritz at a radio shop in Ipswich called Hoey and Ploetz on some Saturdays. It was good money and good experience for me. Gordon arranged it.

At EIL I also did a lot of overtime work at night replacing TV picture tubes. We did it without any protective goggles, we didn't even think about the danger. My wage had increased to £16.10.00 (\$33). About this time Gordon became chief Engineer.

operated but had its own dual telescopic antennas. It didn't have a standard power transformer with the 240 primary input winding and separate secondary winding. Yes, the chassis was connected to one side of the mains which was popular in years past but safety concerns since put paid to such practices.

The Astor valve portable PS, BNP and others were very popular. The BNP was one of the last valve portables. It used three 1T4s, a 1A7GT or DK32, a 1S5 and a 3V4 output. It was a five band radio operating on a 1.5 volt A battery and two 45 volt batteries. I mentioned the PS a few pages back.

### Taa taa Dauphine, hello Austin

Because of the tyre wear I traded it at a used car yard for an Austin A30 panel van. It was a slight step down comfort wise but OK regards mechanical reasons. A dark green colour.

So I was seeing Marie quite a lot of course and not doing much regards radio and VK4ZAG.

Soon after I fitted some shelves inside it with a connection to the 12 volt car battery so I could do simple little service jobs. I also fitted a 12 volt to 250 volt genemotor to work my future Ham gear. A genemotor is simply a motor connected to a generator. Both on the same shaft. I think it had an output voltage of 250 volts at a few hundred milliamperes, enough to run a small transmitter.

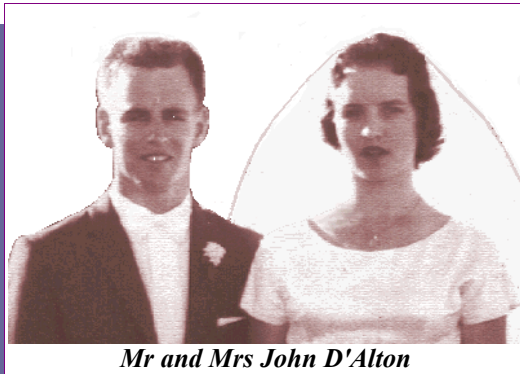


*An Austin A30*

### Helical Scan

Toshiba demonstrated the prototype helical scan Video Tape Recorder (VTR) which used 50mm tape running at 15 ips over just one head.

1960  
I married Marie



*Mr and Mrs John D'Alton*

On the second day of the New Year 1960 we were wed in Strathpine, the first wedding in the church up to then. Tex (Terry) Barker, one of our apprentices was my Best man.

I was back at work on the 25th  
of January.  
Our own abode

We shifted to Enoggera into almost half a house with no kitchen sink or bathroom. Just enough room for a little of my Ham gear. A note in my diary states a man named Wes Cooke brought me four radios for service.

Another shift, Toowong

A work mate whom I can't remember his name, got us a house to rent on Sylvan Road. We moved there in July. John was born a few days later on the 27th.

This full house belonged to Mr Walker and his daughter Cecily. It had been a shop because the front part had lots of shelves so we think it had been a grocery shop. A great big place for my Ham radio and workshop.

Electrical Trades Union

I joined the ETU in February 1960 which cost me £4/01/00 (\$2.10).



*35 Sylvan Road, Toowong*

Back on the air

Circuits, solder and JD

On the 15th of October after three years inactivity of VK4ZAG I made my first contact on the 6 metre band with Mick VK4ZAA, Laurie VK4ZGL, Tom VK4ZBH which must have been exciting for me.

All transistor car radios



*Astor JVT 7 transistor car radio*

Another step was the all transistor car radios, in fact all radios were now all transistorised.

The one pictured was the negative chassis JVT which is pictured on the front cover of the service manual under the logo of EIL. I suspect all manuals showed an image of the item on the front of manuals from then on.

The transistors were, 2N484 RF, 2N486 converter, two 2N483s IFT, a 1N295 diode detector, 874 pre-amp and a 1138 output.

The reader may think that car radios were my favourite items as I haven't mentioned other types so far. Car radios were my entry into servicing I suppose but I can assure the reader that I was involved with the others also. So the portables were becoming smaller. One very popular one was the Astor CPN which had six transistors (TS) using four AA cells giving 6 volts. About 17cm x 11cm tall x almost 5cm deep, quite small. There were larger ones about twice this size but I suppose the public was intrigued by the small size. I must have serviced hundreds of CPNs. The photo is of an FPN which was almost identical to a CPN with a leather case.

And of course there were TS record players that had small DC motors, all transistorised.

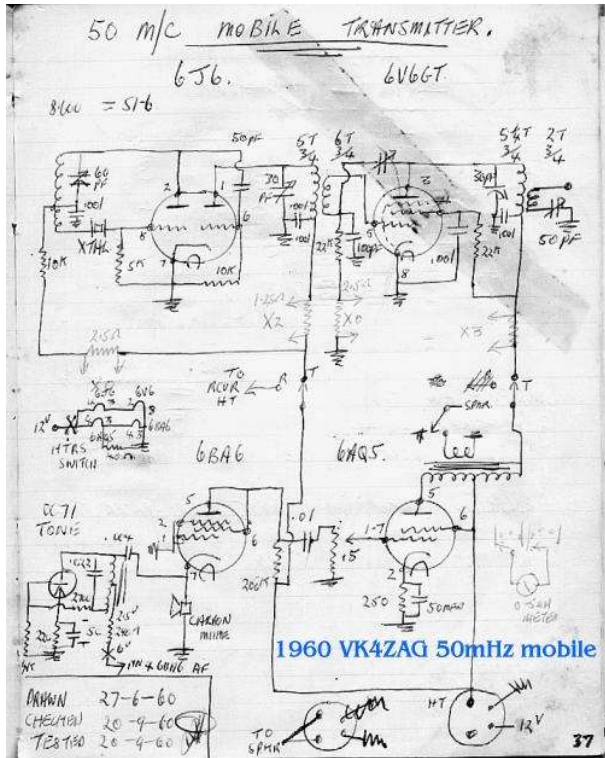


*Astor FPN in leather case*

Things were changing so much and I can't talk about the televisions because I wasn't interested in them even

though I walked through the TV service section every day. My Ham gear was still using valves of course which were cheaper than transistors. Some older radio servicemen could not make the change to the new transistor world. Life must go on.

### My first Ham contacts interstate



My first 6 mt mobile TX rig

In November I made contact with VK5MK with my mobile rig. I built it myself in an old case which had been something which I don't remember. The circuit is above. Notice the one and only transistor (TS), an OC71 audio TS which was a tone generator used to adjust equipment and so. The microphone was an old carbon unit, probably a telephone one. I had a switched meter that was used for adjustment and checking the various current and voltages. This can be seen tacked onto the top front panel, I think it was an after thought because the metal was very hard to cut.

Following are photos of it and my 6 mt receiver RF front end which fed into my car radio on the Broadcast (BC) band.

### 6146 TX valve

Also I made my first contact for three years using my new 6 mt rig which I built using a 6146 valve, power input about 25 watts.

It was a fantastic busy time for us in particular with our little baby John being a good baby. My radio work at EIL was a good time as also my Ham radio activities.



6146



My 6 mt mobile transmitter



Underneath view

My 6 mt mobile I also built as shown here.



6 mt RF to BC receiver

### 1961

Norm Phithian VK4ZNS was a particular friend whose family we befriended. Norm and Shirley had three children and John used to talk to Mark on the Ham radio.

In January I conducted my first cross-band contact. VK4ZAP who I don't know his name, transmitted on 2 mt and I on 6 mt. A few minutes later we reversed our transmission frequencies. In February another Ham who I also don't have his name, VK4ZBH conducted a duplex contact. This means that we talked and listened at the



**VK4ZAG Ham operators**

same time, similar to a normal conversation. I transmitted on 2 mt and he on 6 mt. What fun!

### I Left EIL

On the 26th of May I left EIL to start at Philips. It was a sad step after a little over eight years. I did

not collect Long Service Leave because I had not been there for at least ten years. I took my Superannuation because Super was not transferable in those days.

### I Started at Philips



I had an interview with someone in the Philips TV workshop in Elizabeth Street on the eastern side and about 50 mt south of Edward Street. I was accepted! I started at the new Philips' workshop and office which was in Hampton Street South Brisbane. I reported to Geoff Lake and

workshop foreman Mick Burton. My start time each day was 8 am, lunch at 12 noon if I remember correctly although this varied when I was out on outside service. Finish time was 5 pm. Of course I had morning and afternoon tea times of about 15 minutes each. Philips also supplied me and all service personnel with a couple of different uniforms. They were blue in colour with the Philips emblem on the chest pocket. I still have some of the tools that I was supplied with in a special carry case.

So now my service life was different, only Philips brand equipment was serviced. My job was servicing amplifiers, intercommunication units as well as the usual consumer radios. I was Mick Burton's offsider going on outside servicing of intercom systems. Intercoms are voice communication equipment as used in offices, factories, schools, churches, shops and such like.

I remember my first day out with Mick was to an office or factory which was a bit frightening for me. We had to service a Philips Philiphone system. The units were model number 1152. I was surprised that these used three octal type valves, old types. To use the Philiphone the calling person needing to speak to another person switched a switch selecting that person then pressed down the talk switch when talking and releasing it into the listen mode to listen. The called person would just have to press the switch down to reply and release it to listen. The Philiphones operated between more than two people so they had no private facilities.

The press to talk (PTT) switches were the very common PMG type switches that I had used at the Officer P.P. 'phone switchboard when I was a Telephonist so many years before. Everything seemed so different at Philips. It was an adventure. I was being trained to take over the outside servicing of all the equipment as I have

Here are two of the first QSL cards I received from two of my EIL apprentices, Graham Buchanan and Malcolm Aldred dated March and April.



**Graham Buchanan VK4ZEX**



**Malcolm Aldred VK4ZEL which has faded quite a lot.**

already mentioned. This allowed Mick to remain mostly in the workshop as foreman. In June I did work at what then was called The Deaf and Blind School which was in Cornwall Street Annerley, near the Princess Alexandra Hospital. It was a very different environment with special sound equipment for the children. I also installed wire loops under the floor which transmitted to the student's hearing aids. This may have been the first time for me having to crawl around under a building's floor.

My ham activities continued or should I say Marie and I continued activities when she assisted me on our transmitter hunts which were in our car.

Baby John also went transmitter hunting. Another ham or hams put a small 2 metre transmitter somewhere which emitted a beeping signal which we had to find. In our case Marie held the small directional antenna out of her window and turned it to guide me to the hidden transmitter. One such transmitter hunt ended at Mt Glorious. It was fun!

One of Philips' intercommunication units called a Philiphone used a bank of three position switches, down, centre and up which I mentioned before. I obtained some used ones and built up a new console using one or two of these banks. I think each bank had ten switches. These switches and others and lamps I built onto a metal panel

which can be seen at the bottom left. Above is a tape recorder I built and a manufactured one on the right. The Ham rack was on the right. This is the console that John used to use to talk to Mark Phithian. I will talk about the tape recorder later.

### Ham activity stopped for a few years

I stopped my ham radio activities about this time due to my lack of interest and did not go on the air again until August 1982.

1962

Work at Philips continued which I liked very much as I went out a lot on service work mainly at commercial places and schools. Public Address (PA) equipment was a big money earner for Philips. PA is used to address people from one or a few places using microphones. Some units also incorporated music devices such as radio tuners, record turntable and/or a tape recorder to provide background music.

Intercommunications equipment, that is devices that allowed speech between people in a business at the same location was manufactured by Philips. There were two main types. One had a base station and the other units were called remotes. Such as a main/base unit at a reception desk. The receptionist could talk to any remote unit but only one at a time. The remotes could not talk to each other.

The second system is where there is no base unit, everyone could talk to everyone else but only two people at a time.

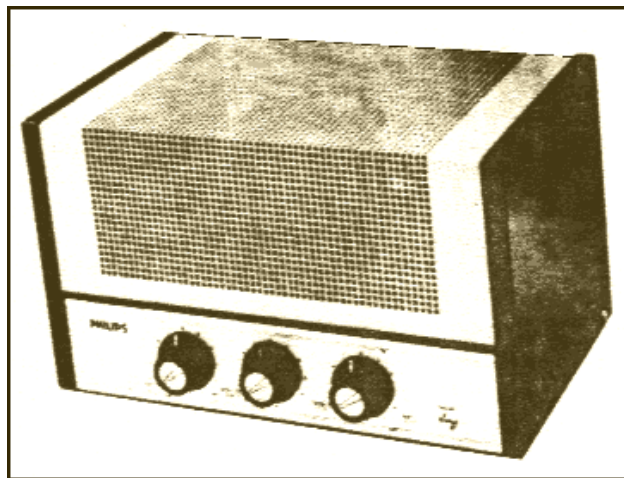
These were tricky to service due to the fact that the units were in different locations. One hard part was to find the remote unit/s which could have been in locked rooms or a workshop. I also did small installations which meant working with hundreds of wires and learning colour codes.



*My Ham console and tape recorders*

Other workmates were Jim Jessop and George Mahoney who were TV technicians.

### A Philips amplifier



*Philips PA amplifier*

The 6CM5 valve which was used in TVs were also used in the audio output stage of Philips amplifiers but only lasted a couple of years. I serviced thousands of these amplifiers. They were :-

EV4430	30 watt using two 6CM5 s
EV4432	60 watt using four 6CM5 s
EV4437	100 watt using six 6CM5 s

The pre-amplifier valves were two 12AX7s.

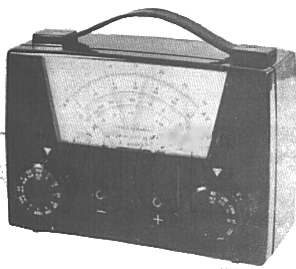
### I serviced All Types

By now I was getting used to outside service to such places, some which still exist, GJ Coles, Queensland University, Commonwealth Engineering, Cathedrals, fire stations, factories, schools, offices, in other words a varied diet. One piece of equipment was a Philips multimeter, model P81700. It was a taugt band type. The needle was suspended by a taugt band instead of the usual pivot bearings as in most equipment which meant it was quite robust. This was long before the advent of LED and LCD read-outs. I still possess this multimeter which still works OK.

### P81700 Multimeter

The manager of Philips was Bert Brayne who seemed a fair boss although I didn't see him very much.

I serviced all types of radios when I was not servicing intercoms and amplifiers. One portable radio was competition to the Astor but was not a transistor unit. It used the common valves, 1R5, 1T4, 1S5 and a 3V4. It used the usual 90volt (276P) battery and a 7.5 volt 717/3717 battery.



**Philips P81700**

It could also be plugged into 240v power but seemed a little old fashioned because its case was made of what I think was leather instead of hard plastic as was the Astor.

The transistor model 198 used the same case but was a battery unit to power the transistors being,

OC44, OC45, OC71 and a OA79 diode.

When I had no PA or Intercom work I serviced the usual domestic radios, tape recorders and record turntables or record changers.



**Philips**

**1963**

Most of Mick Burton's work was servicing tape recorders. Philips had a good range of quality domestic recorders. The one I show the reader here was a very popular unit because it was portable with a microphone clipped into one side, on the left below the handle.

Some of my new work mates were Jack Pedigrew, Graham Lainge, Peter Freudigmann and Mrs Hambridge in the office, plus Bob McGavin and Maurice Price who were the two apprentices in the workshop. Jim Short was our Service Manager. Greg Doyle was now Service Promoter.

### Maria born

In July Maria Jean was born.

### Restricted Certification of Competency

In April all technicians who did not have one had to obtain a Restricted Certification of Competency. This allowed me to service or replace the 240 volt wiring from the unit to and including the 240 volt plug.

I had to pass a simple practical and written examination which I did.

### My Reel to Reel Tape Recorder

I don't know when I built this unit but it may have been in 1961 or 1962 as I have mentioned it with a photo earlier in this book.

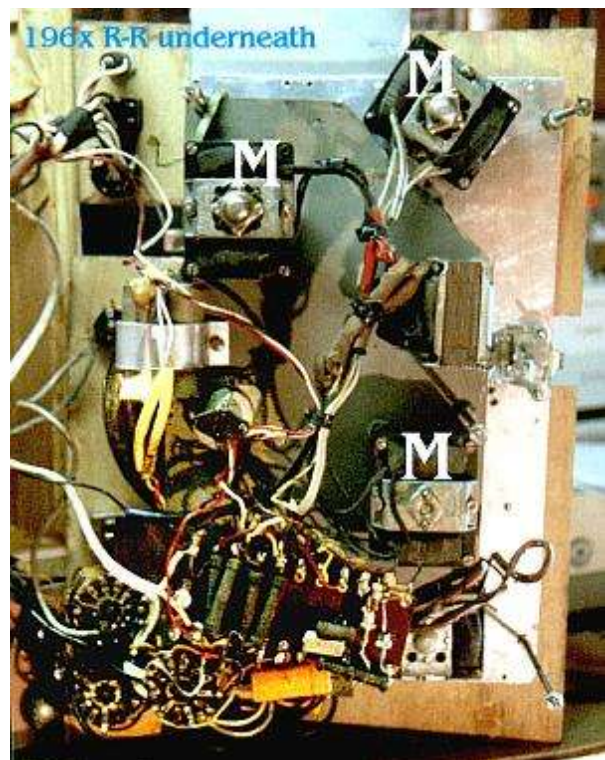
I used three 240 volt AC motors, one for each spool which are direct drive and one for the capstan. The tape spools are 7 inch (18 cm), normal left to right, separate record and play heads, one erase head. In front of the left



**My reel to reel tape recorder**

spool (TO) is the pinch roller switching mechanism to move out of the way to allow threading of the tape. To the right of the big red on lamp is the track switch. Two tracks, mono, are recorded onto the 7 mm wide tape. The other tracks are recorded after the tape is wound to one end and turned over manually.

On the left are the sound controls. I made the belt for the capstan using plastic spaghetti tubing as used in craft work. It was quite affective.



**Inside of my reel to reel tape recorder**

Here is a photo of the underside of the mechanical part. M denotes the three 240 v motors. I can't find my circuits for it but I can give the reader a brief description. The left (TO = take off) spool motor was mounted so that its direction of rotation was opposite to that of the spool in play mode. I applied about 80 v DC to it so tension was

applied to the tape. In rewind all 240 v AC was applied for full torque. The right (TU = take up) spool had about 80 v AC in play to keep tension to wind the tape. In fast forward 240 v AC was applied. The capstan motor had about 150 v AC applied at all times. To brake the TO and TU spools I applied DC to the motors.

The wiring is a bit of a birds nest as the 10 w resistors can be seen in the bottom of the photo. The audio and RF part was mounted on a separate panel/chassis to the left as seen on the top view photo. I think I used a couple of 12AX7s, an EF86, a 6267, a magic eye valve, a 6X4 and a 6AQ5. I had all necessary controls and switches, I always liked using plenty in my equipment. The use of DC and direct drive to motors was applied to many professional tape recorders at the time. The unit ran at both 31/4 and 7 inches per second (IPS). The use of separate play and record heads made for simpler electronics. One could listen to the sound recorded on the tape a fraction of a second later. This meant immediate monitoring could be achieved. It was fun to use by talking into the microphone on record and listening to headphones at the same time.



**Paper tape**

Most people stuttered in this case. John used to do it some times when he spoke into the mic.

The use of a microphone by Marie, John and later Maria when using tape recorders and my Ham equipment meant they became quite used to talking into microphones.

The early tape that I used was Pyral paper which was cheaper than the "plastic" based tape. Here I show a container box for a reel of 5inch (12.5 cm) in size.



**Malcolm's father, Phil VK4ZEP QSL card**

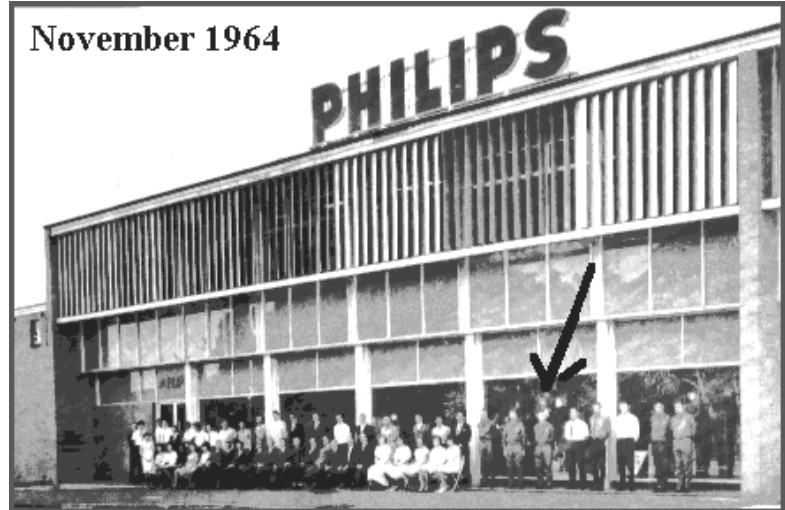
In June I received a QSL card from Phil Aldred, Malcolm's father. An image of his QSL card is shown here.

## 1964

My wages were about £19.8.0 (\$38.80) and I was enjoying working at Philips. Some of my work included running/installing multi core cables for intercom systems. Some cables had twenty pair cable. This means two wires twisted together multiplied by twenty giving forty wires.

They were all colour coded of course as I will attempt to explain. One pair had a white and red twisted together, another had white and green, another white and blue and so on.

Then another common colour was orange instead of white so the pairs would be orange and red, orange and green, orange and blue and so on. In later years some wires were striped of two colours to give a greater variety.



**1964 Time Capsule photograph**

It got very complicated at times but as long as one kept to a standard and wrote the colours and connection numbers down it helped.

## Amoco Time Capsule

In November a Time Capsule was launched by Amoco Australia Pty Ltd, a petroleum company. A sealed capsule containing hundreds of microfilmed documents, brochures, magazines, newspapers, films and scale models about Queensland were put into an underground vault at Bulwer Island on a site donated by the State Government. It will be opened in 2065.

A part of Philips' contribution is this photograph taken of most of the staff at the front of the building in Cordelia Street, South Brisbane. In the left part of the building was our workshop which was at the corner of Cordelia and Glenelg Streets. The photo was taken looking at the front door of Philips in Cordelia Street

The black arrow points to myself.

On the 22nd of April Mr Barry Hill was a new workmate to service general radios and small appliances. He later was to become one of my good friends. He is in the photo.

## 1965

In April the Radio and Hobbies magazine was renamed Electronics Australia. In July another TV station began operating in Brisbane, Channel 0, which in later years changed to a higher frequency, CH 10.

Work at Philips was going along OK with people leaving and of course new people coming in. Some technicians did the rounds of different companies, I suppose searching for more money.



Some of my outside service jobs were;  
 University Bookshop, Victoria Barracks, Bligh, Jessup  
 and Bretnall, South Queensland Tobacco Growers  
 Association and others. These were all  
 intercommunication jobs.

### Sony VTR

Sony introduced the first consumer 15mm (½ inch)  
 format helical scan VTR priced at about \$5000.00.  
 Expensive!

### 1966

### Decimal Currency

We changed to the new decimal currency system.  
 Remember the little song “ .... on February 14th 1966...”

Mick Burton had been operating PA systems at various  
 places, mostly at Festival Hall. About this year I did more  
 to ease the burden on Mick by doing some at Festival  
 Hall. The boxing, wrestling, Waterside Workers  
 Federation (WWF) and The Roller Game were my  
 speciality.

### Roller Games

At the Roller Game one of the songs that I used to play  
 during interval and other times was “Boots were made for  
 walking” sung by Nancy Sinatra. I think the music was on  
 78 RPM and LP records. We had records with various  
 countries national anthems recorded on them that could be  
 played when required. There were various teams from the  
 USA and one Australian team called the Australian  
 Thunderbirds. The image shows the setup of the banked  
 track.

Wrestling and boxing was of course also popular. But  
 the wrestling was rather a joke with all the fake  
 movements and antics put on by the wrestlers because  
 television gave them good coverage. I have notes in a little  
 book I used that Mick Burton must have told me in  
 relation to operating the sound system for the wrestling.

One 1115 microphone for ringside, music while  
 people file into the hall, “God Save the Queen” after the  
 first boxers enter the ring, mic volume up while the ring  
 announcement is made then down, music between bouts  
 and at the end as people leave the hall.



*Roller Game in Festival Hall*

### Philips RF and IFT modules

About this year Philips manufactured little modular  
 circuits that were in radios, car radios, radiograms etc.  
 The blocks were about 8cm x 5cm and about 5cm deep. It

was my job to service these so I had a special jig on my  
 bench. The RF and IF stages consisted of about five  
 transistors and associated components mounted on a  
 circuit board. In a radio the module was connected by  
 soldered wires to the rest of the radio or what ever the unit  
 was. Many of these modules were sent to Philips from all  
 over Queensland and I think Northern NSW so I serviced  
 hundreds of them. I think a module sent to us was replaced  
 by a new one or one that I had serviced, in other words on  
 an exchange basis.

### Our Own Home



*30 Bayliss Street Toowong*

In October we moved out of our rented home and  
 moved into our first own home at 30 Bayliss Street  
 Toowong.

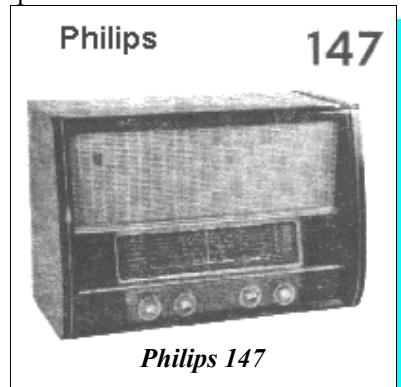
Here is an image of a Philips 147 big table radio.  
 These were good performers but so complicated in regards  
 the mechanicals. To replace a dial cord on similar units  
 was a nightmare compared to the Astor radios.

### 1967

### E.L.A. Building Rack Systems

During this  
 period I was doing  
 a lot of sound  
 system  
 construction work  
 for Mr Reg

Robinson who was  
 the salesman for new sound and intercommunications  
 equipment whose office was upstairs. This was the boom  
 years when factories, schools, offices, churches were  
 installing sound equipment. I installed the equipment in  
 table and floor cabinets. These were a standard size of  
 56cm wide and varying from 28cm to about 120cm high.  
 Philips manufactured radio tuners, preamplifiers, bell  
 sound units and the amplifiers that I have already spoken  
 about. My job was interesting fitting all the units into  
 place, connecting and testing them. Reg would then



*Philips 147*

deliver the unit to the site where one or two subcontractors would connect it. The two men were Arthur Walz and Harry Alderdice who both operated their own businesses. The wiring in the building/s was usually done by them also. Sometimes I would have to go on site to correct any problems but this was rare.

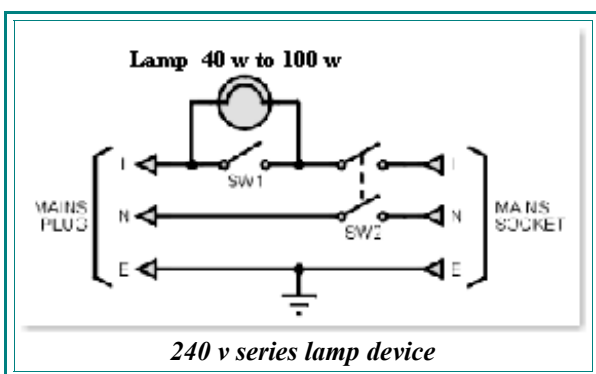
### Series Lamp device

Along with other pieces of equipment that I built was a gadget that I used a lot up until 1995 was simply a series lamp unit.

I show the circuit here.

Depending on the equipment I was testing or servicing, I used to vary the 240 volt lamp from a 25W to a 100W lamp.

The series lamp dropped the 240V down to a voltage which depended on the load or current draw of the device being serviced/tested. If there was a dead short in the device, say a capacitor across the mains or a short circuit



in the power transformer then the increased current drain causes the lamp to light brightly. This is better than having to replace an input fuse. If there was no circuit then the lamp does not glow at all. This can be checked with a 25W lamp in place.

With some solid state/transistor equipment I needed to be aware that a low input voltage may cause the equipment to not function correctly and give a wrong impression that something may be at fault when there may not be a problem at all. Using the device needed years of experience.

Another use for the unit was to plug an AC current meter in place of the lamp to check current drain.

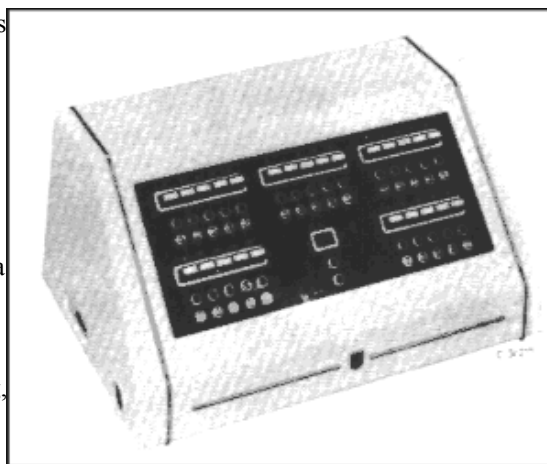
It may have been about this time that a new section was set aside to stock parts for the Industrial electronics part of Philips. Allan Barge had been selling and servicing such equipment for some time, hospital Xray, transport weighing devices, laboratory equipment and so on. The new part was called SIED (Scientific Industrial Equipment Department), that's what it stood for if I'm correct.

My boss was then Allan Barge.

### RF Paging Systems

This was the for runner of radio paging and beeper systems. This came under the umbrella of SIED.

I did see the transmitter and console at the Mater Hospital but was not proficient to service it. Doctors and others wore a beeper device which only emitted a beep or beeps to alert that the person was required to contact the



**RF Paging console EL 7353**

office or where ever. No voice or text

messages in those days. I show the unit worn by the receiver and the console. The receiver was about the size of a spectacle case.



**EL 7366 receiver**

### Solid State Amplifiers

Such a lot of new equipment was being manufactured it was hard to keep track. Special devices for hospitals such as Nurse Call systems, intercommunications etc.

### Six minute periods

About this time Philips commenced a new system of time keeping for we technicians. A period (p) was six (6) minutes in duration which meant there were 10 p to one hour. We had to fill in our job cards and time sheets in the new p format. It was not well received by us but we were stuck with it.

Here is a photo of an EV 4703 Master intercom unit with six rotary switches giving a selection of one of twelve remote units.



**EV 4703 Master unit**

Underneath the speaker at the left one can see the old PMG telephone key with a bar attached to it for the press to talk operation. These were still valve units but was soon replaced by transistorised ones. The EV 4701 as shown was manufactured about the same year still using valves and looking similar in colour. This unit has only one bank of selection switches capable of selection of twelve Philipphone units. The old PMG telephone switch was replaced with another type switch which was operated by the bar under the switches which is the full length of the width of the unit.

This switch arrangement was not successful as the switch action depended on the pressure the operator put on the bar and where on the bar. I serviced these units just for that problem on probably hundreds of occasions.



EV 4701

Allan Shurety who I mention later in this book was servicing dictation machines for commercial places. Dictation machines are devices where a person speaks into a microphone so the sounds are recorded onto a media, at this time being tape. A typist then played the tape back and typed the document using a typewriter. These Philips units were quite good with rewind, fast forward and play which could be controlled either by a foot device or the buttons on the machine.

## 1968

Lyn Pitcher was another audio Salesman doing the same type of work as Reg Robinson. I used to go out with Reg or Lyn onto jobs before and after they were completed for one reason or another.

### School Intercom units

Big schools and colleges used the existing intercom units but in a bigger form. Such colleges as; Women's College, Grace College, St. John's and others.

These provided more headaches than usual. The master – remote type system had scores or hundreds of switches at the master/office unit. Each remote unit had a switch and add to that were the cables. Multicore cables with hundreds of wires which sometimes I had to fix in the connection in boxes. The Women's College at Saint Lucia Campus had a full height, about 1.8 mt commercial rack which I must have spent weeks over the years servicing it. What a nightmare!

In August we purchased a second hand (used) Ford Falcon XB station which was obtained by us trading in our Austin A30. I have not shown a photo of it as I did not install any Ham radio into it.

By this time I was doing quite a lot of my own service work outside of Philips as this was usually done by technicians at the time, I was no exception. I had built up a good rapore with Philips and my own customers.

Philips released transistorised/solid state amplifiers which were not as reliable as their old valve predecessors which used more parts and were harder to service. About this time Barry Hill was doing some of my PA and intercom work.

## 1969

### The ETU and me

In mid-year the ETU were making various demands on technicians and service companies mostly about wages and membership. Marie and I did not like this so we decided that I should leave the ETU, that is not be a member anymore. I tried a few times to tender my

resignation by mail and in person but the ETU would not release me. They put pressure on Philips to get me to change my mind, but I would not. Jim Short was our Service Manager at the time. I didn't like the attitude of the Philips management with the whole thing.

The last attempt by me was to get a JP to draft a letter which I sent by registered post. The Post Office informed us that my letter had been signed by whoever received it at the ETU which was all legally and properly done. After this I was legally no longer an ETU member and their last words were that I was blacklisted and would never be able to get another technical job.

This really got our gander up. After some thought we decided to go into business for ourselves so we chose July next year, 1970.

## Our First Telephone

Sometime this year we had Telecom (Telstra) install a telephone in our home, our very first telephone. This was in preparation for our new business. At the time of typing this, 2005, younger generations could not imagine not having a telephone.

## Year 1970

This year was a big year for us.

Australia's population was 12 million.

I had been servicing equipment on the side, for ourselves outside normal Philips working hours and was building up a good clientèle. Even some Philips customers said they would be happy for me (us) to continue to service their equipment. So we were preparing for the big event, D'Alton Radio or whatever name we decided on.

With all the extra planning we were doing, I forgot to pay my Ham radio licence which was always due in January. Des Shepard at Philips asked me if I had relinquished my licence. I was so surprised that I contacted the Radio Branch as quick as I could. It was all fixed up as I only had to pay my yearly fee. This meant I didn't have to sit for another examination.

## Our Cairns Holiday

In May we took our usual holiday time and went to Cairns. We knew that this was going to be our last holiday for a few years due to our own D'Alton business.

## I Left Philips

I left Philips on Friday the 26th of June. I was given a good send off and a big card that hung in our office for many years. On the front the cartoon character "peanuts" says, "**I've developed a new philosophy... I only dread one day at a time**". The back was signed by about 54 people, probably all the staff. They also gave me a very good leather briefcase which has two locks and three compartments. This was going to be our portable office that I would use when I was on outside service. Great. It was a very appropriate gift.

## D'Alton R.I.S.

This was short for **D'Alton Radio and Intercommunications Service**.

Yes, a long name which we changed years later. I have

not been able to find the original certificate of registration of our business name. We visited a solicitor to advise us of setting up our business and so on. It was an exciting time.

I had arranged with Reg Robertson and Lyn Pitcher that I would do some work in regards to new installations that they had organised and also some service work on a sort of contract basis. On Wednesday the 1st of July I did a job for Reg or Lyn (Philips) at Chermshire Builders which was at Chermshire near the picture theatre.

### Business Cards



*Our business card*

We designed two cards ourselves and had them printed by Ray Evans who operated from a house and called his business ABC Printing. He was a committee member of the soccer club that John joined to play in.

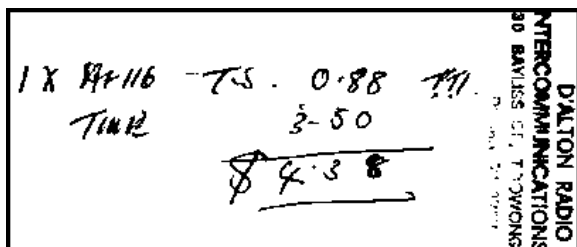
Two early jobs were at Amberley Air Base and PGH Brickworks at Strathpine which were on behalf of Philips.

The first cheque I (we) wrote was to General Accessories for \$8.03 for parts. On the 10th of July the first credit of \$117.61 was credited into our DRIS bank account which was a payment from a customer.

The third job card that I wrote out was for Greenlees Radio and the amount was \$4.38 to replace a transistor in a National transistor radio.

**\$3.00 Per Hour**

We charged \$3.00 per hour. When we closed our business in 1995 we charged \$35.00 per hour. Here is part of our third job card which shows the cost was \$4.38 for replacing a transistor.



*Our third job card*

had been doing some after hours service jobs for Viv Gold who was one of three men who operated Greenlees Radio.

A few of our customers for our first year were:-  
Cloudland Ballroom, Provincial Traders, Iona College

at Lyndum, Lang Park, Ipswich Hospital, St. Andrews, Mt. Olivet and Xavier hospitals, Swanbank Power Station, Arnott-Morrow Biscuits, TAA (now Qantas), St. Laurence, St. Peters, Women's and Grace Colleges, Gaythorne RSL, South British Insurance, Rothmans Cigarettes, Tower Mill Motel, South Queensland Tobacco, Queensland Butter Board, Downey Park Sports, Ballymore, Lang Park, Festival Hall and others.

Of course I serviced the usual radios, car radios, amplifiers, tape recorders that people brought to our workshop, our home.

### Muzak

We had an arrangement with Mr Geoff Lake at Muzak to do some work for them on a sub-contract basis. Muzak was then called Planned Music Pty Ltd and was a division of TV channel 9.



*Ken Betts at Muzak*

Muzak was specially selected and designed music that was available over the telephone line to customers.

I think the amplifier, speakers and equipment remained the property of Muzak. The music was all instrumental, no vocals at all. The day was split up into sections. During the early part of the day the music was soft in volume and slow in beat. As the hours went by the music became louder and faster. The idea was that in the later part of the day as people became tired, faster beat music should keep people awake. I did service work in chemist shops, small factories and offices. Muzak supplied me with most of the necessary spare parts which I kept in the car along with all our other parts.

I carried other tools, soldering iron, cables, meters and so on. There was a lot of equipment in the car which was valued at hundreds of dollars. We had lots of spare parts too such as transistors, valves, plugs, sockets, stylii, mic inserts, switches and more. All had to be counted at end of year stocktake. Of course all similar items were in our workshop which too had to be counted. Quite a lot of work.

**1971**

Some time in 1971 Philips bought out Radio Corporation (Astor/EIL) so I may have worked for Philips if I had stayed at EIL.

### Our Holden HR

On the 29th of March we purchased a 1967 model Holden station wagon, an HR model for \$1395.00 from a

car sales yard on Coronation Drive. It had 48,130 miles (77,008 km) on the speedo.

In the April issue of Modern World magazine was an article about the new development of the Philips Cassette sound tape. It was actually put onto the market by Philips in 1963 but was not a success for some reason. The article showed graphics of sixteen different brands (manufacturers) that used the new medium. Hitachi, National, Sanyo, Toshiba, Sony and of course the Philips "EL3302". Philips still own the design as far as I know so that manufacturers have to pay a licence fee to make the drives and I think also the tape.

In the June issue of Electronics Today, the other Australian electronics magazine, there was an article about a new type record turntable pickup arm. It was on a Garrard "Zero 100" turntable. Garrard was an English firm that manufactured turntables which were installed in about a quarter of the radio grams in Australia. The other firm was "Collaro".

The Arm pivoted as it transversed the record so that the tracking was nearly perfect. The stylus was kept in line with the record groove which was the most favoured position for best quality sound.

### K Mart Opening

On Wednesday the 18th of August, K Mart opened a new store on Gympie Road Chermerside. I supplied, installed and operated our small PA system which was used for crowd control, the opening speeches and other uses on opening day and for the next couple of days.

In the photo the two vertical sound columns that I installed can be seen pointed to by the arrows under the "K" and the "T". This was the first K Mart to open in Queensland if I am correct. It was a big affair. I used to roam around inside and outside the store during these couple of days to make sure the sound was OK. I also did other small things such as checking the main Philips internal store sound and intercom systems.



*K-Mart Chermerside*

In September I did a quotation for Cloudland Ballroom to supply and install a new sound system, our quotation of \$1348.26 was for a rack system consisting of all new Philips equipment.

An EV4418 250 watt amplifier

An EV4438 pre-amplifier



*A sound rack I built for Cloudland*

Various attenuators to control the speakers all in an EV4481 rack about 120 cm tall see the photo.

I fitted a big, big for the time, 120 watt amplifier which had a meter which could be switched to check various voltages. There was a speaker switching panel with four switches which can be seen in the photo. Above that I fitted a pre-amplifier. It was quite adequate at the time for such a big hall.

Our business was doing so well, plenty of work for us

that we decided to have the front below the house bricked in so it would be secure for DRIS. , some house stumps replaced and a concrete floor laid. During this time we operated DRIS from the front verandah. In the photo you can see a little of the new brickwork. There was bad flooding in Herston during a storm which included the premises of a car accessories place at Windsor. We had about a hundred car tachometers to dry out and test. The whole family joined in the work.



*John helping in our new workshop*

We were so busy in the business that we could afford to do many improvements to our home that we would not have been able to achieve in such a short time otherwise.

Here is John helping with the tachometers that were under water at Herston.

### 1972

Sometime this year Philips shifted from Cordelia Street to where I worked for EIL in Spring Hill. Barry Hill recalls how hot it was there compared to the Philips air-conditioned building from where he moved.

By now we were doing some service work as a subcontractor for Communications Systems Australia (CSA) which was a little like Muzak. We also did some subcontract work for Bob McKnight and Arthur Walz.

Arthur Walz had been involved in the Women's College at St. Lucia with me when I was with Philips. This system was probably the biggest intercom system in Brisbane because the College had about three hundred rooms, all with an intercoms.

## Easter Holidays to Sydney

We arranged for Austas which was a company that answered the 'phone in a way that the caller thought it was the company/person business or place actually answering. Austas took messages that they passed onto the third person, in this case Denny Olive. Austas arranged with Telecom (Telstra) to intercept the call/s. In our case we arranged with a friend, Denny Olive who conducted his own TV service business from his home in West Chermerside. Denny rang Austas each day or whenever and collected the jobs and did the service on our behalf.

I did a job for Arthur Walz which I think was at the Women's College at St. Lucia. I was doing more work at **THE** gentleman's club, Tattersalls Club in Edward Street.

They didn't have much sound

equipment wise. A 1mt high sound rack with a 100 watt valve amplifier, a smaller standby amplifier, a radio tuner and microphone for announcements. Upstairs there was a smaller PA system which was used for meetings and social functions.

There was a doorman of course who checked everyone entering.

About this year, 1972 Australia's radio and television licensing system changed from being a payment scheme to a free system.

## Tasmania Holidays

Again we used Austas and Denny Olive to look after our business. We departed in December.

## Philips Laser disc

Philips demonstrated a laser disc playback only unit.

## 1973

We returned from my home state Tasmania in January. I had plenty of work so the time seemed to fly. We decided to move from Bayliss Street due to impending building in the area. We signed to purchase a more modern home in Agnes Street about 2km distant in Torwood.

I had to build a floor and internal walls for our DRIS

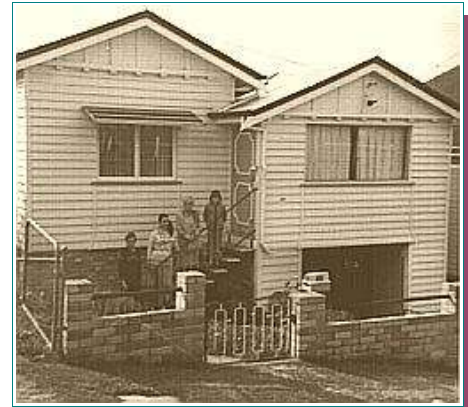
workshop which I did myself.

It was a very rushed experience for us but all worthwhile. John and Maria helped the best they could.

## We Shifted To Agnes Street

On Saturday the 21st of April to Friday the 27th we shifted into our new home in Agnes Street Toowong (Torwood) which was over the Anzac Day holiday. Our first sleep in it was on Friday the 27th. I think our telephone was out of service for only a few hours as both lines to both houses connect to the Toowong exchange. Great!

It was a very busy time for us. Marie tended to her plants which meant a thousand or so pots under the back lounge we call the



*39 Agnes Street*

Panorama Room while I had to set up our workshop. Business wise we were as busy as ever.

Jobs during 1973 were Commercial Travellers Club, QLD Irish Club, Auchenflower Bowls Club, Noahs Tower Mill Hotel which was opposite the old Tower Mill in Spring hill. Brisbane Markets Club at Rocklea, Union College at St. Lucia, Stuartholme Convent and Park Royal Hotel in Alice Street.

## 1974

## Brisbane Floods

January was a disaster for many people. Over the Australia Day holiday Brisbane suffered the worst floods for decades, I think not since the floods in the 1890s.

We had been to the Festival Hall to see the famous Harlem Globetrotters basket ball show. We drove home along Coronation Drive through a lot of water on the roads.

In the morning Coronation Drive was covered by about 5 mt of water. It was caused by cyclonic rains that we had in the last week or so then a king tide. The Brisbane River was 6.7 metres where as the normal height is 2.5 metres at the Port Office at the river end of Edward Street. The photo was taken from Charlotte Street near the intersection of Albert Street looking south.

Calls for people to give flood affected people lodgings were put out in all the media for a few days.

We had plenty of work due to the floods. Various electronic equipment at some of our customers such as, Lang Park, Greyhound Coaches and a builders place in South Brisbane.

## Electronic Organs

I had decided to service electronic organs so I bought some service books and advertised in the Western Suburbs Advertiser.

We were in the process of installing an intercom system in a massage parlour in Bardon and I had run the cable to the units which I still had to connect. One night a fire burnt the insides of the place out, probably set by opposition gang people. As we were not getting any answers to our 'phone calls we decided that I go to the private house of one of the company heads. There was no one home so I left the account there but of course never received any responses. That was about \$600 down the drain.

About this time Reg Robertson had installed a sound detection device at the TAA terminal building at Eagle Farm airport. I was involved in adjusting it. Because there were more air flights the noise during busy times in the terminal was quite high. Then in quiet times it was very quiet. So there was one or perhaps two microphones situated near the ceiling to pick up the ambient noise and adjust the output sound of the public address system accordingly. It wasn't too many months later that a big event occurred at the terminal. I had been up in the ceiling and noticed that some of the electrical cables were quite warm. There were scores of cables running all over the ceiling, above the ceiling in the roof. What a rats nest I thought!

### TAA fire

In September TAA (now known as Qantas) suffered big damage due to a fire at the Eagle Farm Airport Terminal. This was where the igloo type buildings were built during WW2.

Ansett, TAA and the International section were situated in two of the igloos. Philips called me to urgently go out and help set up a temporary PA system. I think it was about 10pm one night.

I had been doing all the sound service and most sound operating work at Cloudland which was a good money earner. One such job was a convention for G.R.E.A.T.A. Which I don't remember what the letters stand for but it was something to do with insurance. Some conventions were held in the recently added extension on the western side over the driveway called The Panorama Room. I think I worked that for three or four days.

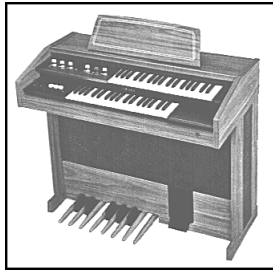
### Darwin and cyclone Tracy

In December on Christmas Eve cyclone Tracy caused terrible damage to lives and property in Darwin.

1975

### Our New Ford Falcon

We went to the RNA Show and among other things we



*A Yamaha electronic organ*

checked out the new cars. We checked the Ford, Holden and Valiant.

We purchased a brand new Ford Falcon 6 from Metropolitan Motors in Spring Hill. Marie and the children chose the blue colour which although it was not my first choice I was quite happy with. It cost us \$4676.00 cash and we received \$700 trade in on the Holden HR.



*Ford XB VK4ZAG mobile*

### A Monastery

On August the 5th I did a service call to the Carmelite Monastery at Ormiston. I was ushered into a reception area then was told some rules that I should abide by. Then another nun took me through another doorway into the Monastery proper. We were to talk very quietly and walk slowly as she rang a little bell to inform the other nuns of my whereabouts. It was rather inconvenient but amusing.

### I Attended A Convention In Sydney

I travelled by train to an electronics convention at the Sydney University. I was away from the 23rd to the 31st of August. I stayed in one of the dormitories. I remember one of the main talks was about the new video tape standard which of course is defunct now.

In October another K-Mart store opened, this time in Kippering at Redcliffe. As I did previously at Cannon Hill and Toombul openings, I set up of our temporary PA system and stayed around for some time. I don't know for how long. It may have only been for the one day as by now there were less people going to the openings. We had another meeting with Geoff Lake of Muzak to consolidate our agreement. I did many jobs for them at Super Value Supermarket stores. In stores such as these they also had microphones at the checkouts, similar to Coles and Woolworths. So we were servicing almost all of the supermarkets and K-Marts, a big arrangement which kept me/us very busy.

I travelled to Redcliffe, Petrie, Kenmore, Ipswich, Sunnybank Hills, Wynnum and Manly.

I was clocking up a lot of kilometres in our new Ford. I will mention here that Marie always made me a cut lunch and a piece of fruit. If I was on the road on outside service which was about 75% of the time I would stop at a park and have my lunch when it was time. Only very occasionally did I have lunch at the business I was at in their canteen. Also very rarely was I offered a cup of tea or a drink for morning or afternoon tea time when I was carrying out service in a private home. So sometimes I didn't or couldn't have lunch until 2pm or even 3pm. Most days I had a short nap lying in the car or under a tree

in a park.

## Telephone Number Changes

Also in November the Australian telephone system had another change. An extra number (digit) was added to the most significant (left digit). So our 'phone number was changed from 71 3707 to 371 3707. A few years later there were more changes.

Our letter head for our correspondence was designed by a man at St Lucia. The picture here shows a business card with the additional "3". On our new letterhead was also printed the 'phone number, 364 368 which was Peter Freudigmann's home and business number. We had an agreement that he would be a backup 'phone number for us. Peter was one of my workmates at Philips but was now operating his own business.



Another card with 371 3707

1976

On May the 23rd Eric Greenlees died. This left Viv Gold and Col Schultz to go their own way so commencing their own

service businesses. Viv kept the original name and operated from a shop in Edward street.

Some customers about this time were:-

Muzak at Cut Price Stores, AV Jennings, Breakfast Creek Hotel and AMP Insurance.

Ansett, Villanova College, Royal Queensland Aero Club at Archerfield. One day John came with me to the Aero Club and helped me.

Auchenflower Bowls Club, TAA, Marist Brothers College and others.

One of our main suppliers for sound equipment was a firm called Teleacoustics. I don't know who owned it but Reg Robertson who left Philips may have. Another friend by the name of Rodney Dinte who was an ex Astor technician was with him.

Most of the radio, stereo, turntable parts we purchased from Audiotronics at West End and C.A. Pearce at Spring Hill. At the time of me typing this all three business' no longer exist.

## Our New Zealand Holiday

All four of us had our holiday in New Zealand this time.

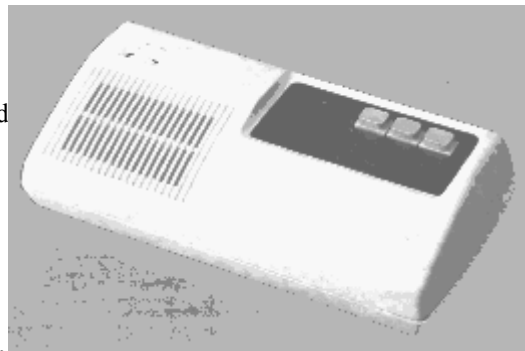
We arranged with Austas again to collect and give DSS calls to Denny Olive

On December 25th we all departed to holiday in "The Land of the Long White Cloud".

1977

## My Modified FM Intercoms

Also this month I went to the Patents Office to check

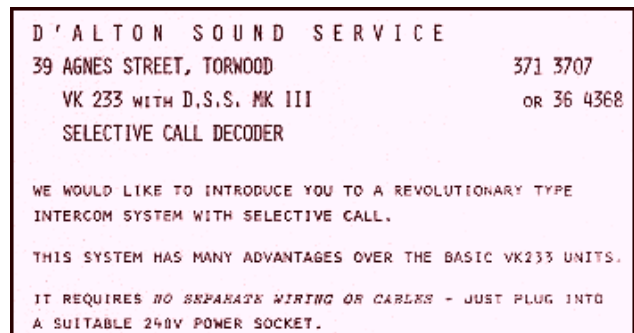


A National intercom

what I could do about the project I had been working on for a few months. The unit was the National VK233 FM

intercom unit. Two or more units could communicate via the 240 volt mains that the units were plugged into. All units could speak to any unit as there was no individual selection. In other words they were really only useful for two positions. I designed a system of audio tone circuits so that each unit had a particular tone. This meant that unit "1" could communicate with unit "5", unit "3" could communicate with unit "2" and so on. The picture does not show the extra unit selector and privacy switches. I had special advertising sheets printed which I distributed to a lot of businesses but nothing ever came of it. I suppose I didn't do the correct type of marketing as I was never a sales type person. But it was good experience.

Similar units came onto the market some years later but were never really a success. The beauty of the FM system is that there is no special multi cable required which can be a major part of the system cost.



Advert for my modified intercom units

## John's First Computer

(I talk about John's first computer because it shaped our business later on.)

In about April John bought and built his (our) first computer from a kit. It was a National Semiconductor SC/MP. It did not have a VDU screen. The input was through a small keypad, similar to a calculator. The readout was also similar to a calculator. I built up the 5 volt positive and a 12 volt negative power supply. He wire wrapped about 200 hundred points. It would not function so we took it to the agents who were in Paddington. They fixed it under warranty. He got only one connection incorrect, what a fantastic achievement. It had only 256 bytes of RAM. Today PCs have up to 128Mbytes of RAM.

More news about the SC/MP later.

## IREE Computer Group



On the 10th of June John and I attended the very first meeting in the Windsor School of Arts in Lutwyche of the IREE Computer Interest Group. IREE stands for Institute of Radio Electrical Engineers which had been in existence for decades.

In June I attended a school for electronic organ servicing for two days which was put on by EMI (HMV) which were in Fortitude Valley. This was the beginning of an era where the manufacturers of audio/radio did not give free seminars. It was a matter of technicians not working for a big company having to teach and battle on by oneself. The days of the big companies, Philips, Sony, National, NAD and the rest did not offer much help.

By now there was a bit of a revolution in turntable design. The turntable I mean is not the railway type but that which is used to play records such as 45 RPM and 33 RPM discs. The record changer was not popular anymore so turntables (T/T) would only play one record side at a time. The new design consisted of the motor being electronically controlled. This meant that sound wow or wobble was non-existent. Of course they cost more.

One of these was the Technics model SL - 1500. It used fifteen transistors, ten diodes and about as many capacitors and resistors. Yes, quite complicated.

By now most of our sub-contract work had ceased, Philips, Better Music and others. It was good while it lasted.

## 1978

### We serviced Woolworths

In February I did work for the Queensland Cane Growers Council which was in Edward Street. It looked after the affairs of sugar growers in Queensland. They had big meetings a couple of times a year so I checked out their sound equipment and repaired any faulty items. There were about twenty table microphones around the big table so that all speech was recorded on reel to reel tape. It was a good job to do.

I had a meeting with Mr Caterall who was manager of a section of Woolworths and we came to a gentleman's agreement that we would commence servicing the



*John's SC/MP*

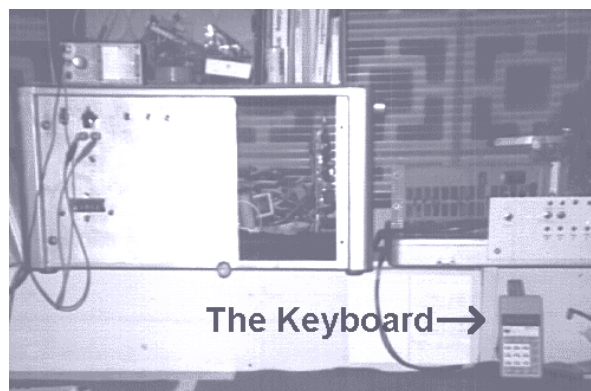
Woolworths Stores in the Brisbane area. This was on Thursday the 20th of April. The work was similar to

servicing Coles and K-Marts.

This was a good arrangement. The jobs were very similar to Coles ones with the usual checkout, front end, office, store microphones and various types of intercom systems.

## SC/MP Computer

The little SC/P computer that John had constructed was then to be a hobby for me as I was not understanding what John was telling me. I started constructing various parts to its little system. The original input device was the little calculator keyboard, see the arrow.



*The SC/MP computer*

In August Muzak had a new CEO whose name was Stan Jacques. At this time we were paid \$12 per hour for the contract work we did for them.

In August I built a board that more RAM ICs (chips) could be fitted to give more RAM for the SC/MP. It was then up to 1Kb, great!!

In regards to the SC/MP I was doing a lot of digital electronics experimenting both hardware and software. Digital electronics involves AND, NAND, OR, NOR using various chips. It did help me later on when digital electronics was used in the sort of equipment I was servicing.

In October I did jobs for the Gardens Point Campus Club which was the club for students of what is now a part of the Queensland University. Also Kedron Wavell Services Club and Saint John's Cathedral, Toowong

Music, Tattersalls Club which was a Men only club in Queen Street. Commonwealth Industrial Gases (CIG) at Archerfield. This was a good customer as they had extensive PA and intercom systems. Also Boomerang Bus Company.

## 1979

John had been working on the SC/MP so that we could input via our #15 teletype machine. These machines were used during WW2 and are quite a magnificent unit. Two machines can be connected by two wires and a person can type on one and the data is printed out at the second machine. One night when Marie and I returned home from a dance at Upper Kedron John greeted us with excitement. He had written the software in Machine Language (ML) so that we could type into the SC/MP. **Fantastic!**



***15 teleprinter and my control unit***

Some days later I built a device that detected when our 'phone rang and printed out the time etc. I had learnt Machine Language (ML) by now and wrote the software.

We placed an advertisement in volume 1 number 2 (March) of the new Musicians Union newsletter called "The Professional Musician". I think we paid \$10 for it.

During March, from Sunday the 11th to the next Friday we supplied and I operated the sound system for a special fashion parade put on by GJ Coles, a good customer. With these types of jobs for K-Mart and Coles I gained a wealth of experience in the entertainment field. I also was in contact with top brass management of the companies. Another similar one was held at Eagle Farm Racecourse in the Guinness Room.

### **My Advert Mixer**

About this time I developed another project which was a device to play a cassette tape at certain times. I designed it to be used by supermarkets and the like so that a pre-recorded advertisement would play over their PA system at selected times. I loaned the stores a unit and connected it to their system. After a couple of weeks I went back to collect the unit and checked if it was useful to the store. There were no takers although many managers said it was a good idea. Units that do this job have since been put on the market but were never a success for some reason.

In June the first meeting of the IREE computer group held in the new location in the old South Brisbane Town Hall took place.

I haven't mentioned radio, electronic and computer magazines so far which by the end of this decade, 1970s were becoming increasing in number.

Electronics Australia cost was \$1.90 and the editor was Neville Williams. Other magazines included Elektor, Practical Electronics, and Electronics Today all of which were Australian magazines. All these magazines actually had articles about building all sorts of things. Using a soldering iron, a multimeter, an oscilloscope, signal generator and other test and measuring devices. The items included the usual radio, amplifier, transmitter, tape deck, computer, devices to connect to a computer and so on.

### **More SC/MP**

In November John and I wrote software so that we could finally save and load programmes and data to/from cassette tape. Of course we could load programmes and

data from tape. Cassette tape save and load data was the norm for many small computers at this time. The big commercial computers were using big tapes and punch cards for this purpose. I can't imagine how many months or years it would take a person to type in a present day programme such as MS Word for DOS. One would only need to type one mistake and it could be disastrous. What does the reader think?

Sometime during 1979 I designed and built another device that connected to the SC/MP and was used when I tested an amplifier for extended periods.

The SC/MP controlled my signal generator and kept my oscilloscope (CRO) in track of the different tones that drove the amplifier under test.

Jobs during the year were:

Exhibition Bowl which no longer exists but was near the RNA in Fortitude Valley, Commercial Hockey Club at Windsor, Haydon Sargents Greenhouse at Indooroopilly Shoppingtown, Hendra Bowls and more.

## **1980**

By now John had other interests and so the SC/MP computer was really mine and in February I added more RAM to it. I built the printed circuit board which also was a wire wrapped board. I added 1Kb of RAM, yes one kilobyte, actually 1024 bytes. I also wrote software so that we could use the TTY machine as an input device just like a standard keyboard. Of course it did not have the extra F1 - F12 (function) keys nor the PgUp, PgDn, Del, Home, End, Ins and arrow keys which are on a modern keyboard.

### **John and Lyn Announced Their Engagement**

On Saturday the 1st of March John and Lyn announced their engagement which was the reason I was pretty much on my own using the SC/MP.

I started doing service work for a company called the Reception and Department Academy which was Mrs Lorraine Martin's company.

She had a room setup to teach typewriting. She had some Akai cassette recorder machines that played various tapes. Lorraine made the tapes herself. They were for different typing speeds for various levels that students were in and progressing. The tape recorder dick units were Sony GXC - 39D which were expensive and had a glass record-play head which means they never suffer from tape wear.

### **New name, D'Alton Sound Service**

In May 1980 we applied for a new name, D'Alton Sound Service (DSS) because the old DRIS name was too long.

Another K-Mart opened at Toombul was another job but the crowds were smaller than previous openings. K-Marts and bog shopping centres were becoming common.

### Admin. Services work

We had come to a gentleman's agreement with a Commonwealth Government department called "Administration Department" (Admin).

This department looked after the affairs of Army, Airforce and Navy service personnel when they moved from country to country, state to state and so on. For any electronic sound equipment that was damaged in transport, they called on us to service it.

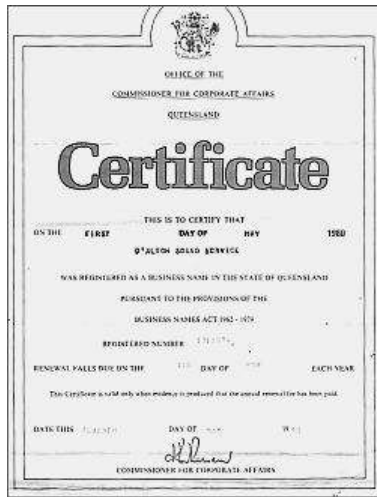
Most times we had to give a quotation which was always accepted then I went out and finished the job/s.

Some jobs were at Canungra which were quite profitable due to the distance.

On Saturday the 27th of September I attended a computer seminar of the 2650 group which I think was at the South Brisbane TAFE. The 2650 was another 8 bit microprocessor IC (CPU) and more advanced than what our SC/MP used.

On Tuesday the 30th I went to a showing of the Tandy TRS80 computer at Lennons Plaza Hotel. As you can understand the progression of the computer world was increasing.

In October I saw Brian Jones of Audio Engineers to arrange us servicing DUAL turntables. This later proved I had made a very good business decision which earned us a lot.



*DSS new name registered*

### John's Last 'Phone Message For DSS

As John was still living with us just before his wedding day, on Friday December the 5th, he took a telephone message for us being a DSS business call. Here is the image of his message.

### John Married Lyn

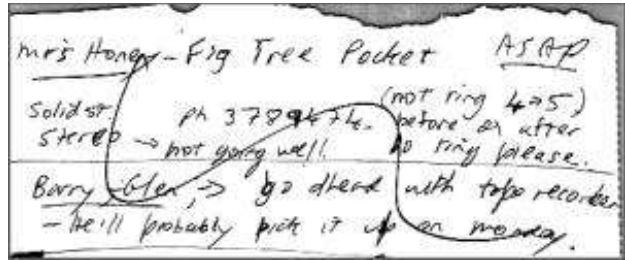
What a great day. Our first child getting married. The wedding to Lyn Gray was at the Wynnum Gospel Hall (Church).

From 1980 we were servicing special sound tape/35 mm film machines for Queensland Aero Club.

The units were "Insta-Load 35" and I think

manufactured in the USA.

They were designed for teaching situations so were ideal for use to teach learner pilots. The tape section was a normal Philips cassette design but could detect tones



*Last phone message John took for DSS*

recorded on the tape which then caused the film to advance to the next frame. The film was standard 35 mm film strip. The film was rear projected onto the front left side, where the shuttle is represented in the photo or if desired for a group of people out the left side onto a standard screen.

Most of the work was normal tape deck faults, belts, pinch rollers, play heads and so on. The electronic tone part hardly ever gave any problems. IDC supplied me with test tapes and films to service the units. The cost of a unit was about \$600.

We were servicing these units for Qld Aero Club, Rex Aviation and occasionally Sun Coast Flying School on the Sunshine Coast brought their units in to us to service. It was good money work.

Also sometime during 1980 we were servicing alarm units that GJ Coles food supermarkets used in relation to the refrigeration system. The small alarm boxes used a plugin device about the size of two Mars bars side by side which had a relay, some LEDs and a few components.

### 1981

I did a small job as a sub-contractor for another music company similar to Muzak called "Better Music Installations" at the Carlton Hotel which was in Queen Street.

In June I did a job for Rhonda Collieries near Ipswich. They had an intercom system with the master in the main office and about six remote units at various points. Some points were where the loading of the coal onto trucks took place. The job was the dirtiest I had ever been on. Black coal dust everywhere so I made sure the car windows were closed.

About this year was when a new generation of video tape recorders (VCR) were developed by Sony, National, RCA and others. Video cameras for home use was now a reality although quite expensive.

CB radio is something which I haven't mentioned so far which I didn't take any interest in but nevertheless was very popular. I suppose it was the beginning of the era whereby "ordinary" people could communicate by radio. Technical knowledge was not required to obtain a CB licence. CBs were a boon to long distant truck drivers and like people could put CBs to good use regarding road condition, weather and so on. Many CBers later became more interested and became radio Hams.

## NZ holidays

This time we used Austas which was a company situated in Albert Street Brisbane. People calling our phone number were transferred by arrangement with Telecom (Telstra) to Austas. A human answered the call and took messages. The caller was not always aware that it was not us answering the call. This time we had arranged with a friend Rodney Dinte who conducted his own Intercom business to be our backup with Austas. He would phone Austas at various times to receive the messages which were read out by a human. It did cost but was not expensive. Rodney then took appropriate action which was to do the work or otherwise.



In September I purchased a tape cassette telephone answering machine from Dick Smith. I think it used one cassette tape. I used its little remote unit which I used at public 'phones to collect any messages. This freed Marie up so she did not have stay home and be tied to the 'phone. At first people did not leave messages as it was new technology.

I was servicing so many Dual turntables that I built a special jig and an electronic unit that was connected to the SC/MP computer to test turntables. This meant I could test a turntable without having to manually start it. I built it from wood which held the turntable and I could turn it 180° or anywhere in between so I could work on the underneath of the turntable or changer.

## 1982

We drove to Sydney in the early part of the year when I visited a company that was the Australian agents in Gosford called "Ideas Development Corporation" (IDC) for the Singer film/sound projectors that I was servicing. They gave us the OK to continue to service the special units that I have mentioned in 1980. They were used by air flying schools situated at various small airports to train air pilots.

We returned on the 1st of February. Maria looked after our DSS business 'phone calls by using our new answering machine.

One very memorable job we had was at Metropolitan Funerals which was next to the Fortitude Valley Pool. I was doing some wiring work which was inside up near the ceiling. I looked over a wall petition and got quite a shock!

## A Corpse

A corpse! It was in pieces as someone was working on it but I could not watch for more than a few seconds. Yuk!

Other jobs were Safeways Store Buranda, Corpus Christi College at Nundah, Grace College, Saint Andrews

Hospital and others. The work at Saint Andrews Hospital was a carry over customer from when I was at Philips. Hospitals at that time had two sound systems. One was a system of being able to listen to one or more radio stations or other music on headphones. The headphones were not electronic but were made of soft plastic which could be sterilised. The headset tubing was plugged into a small special driver or loudspeaker unit mounted on the wall next to the patient's bed. The wall unit also had a switch to allow selection of the programme. The headset was similar to a doctor's stethoscope. Anyway the switches gave a lot of trouble because many people, patients, staff and visitors would fiddle with them. The switch was also affected by the cleaning fluid used when the wall units were cleaned. The other was the usual PA system.

Another system is a nurse call system that the patient could call by pressing a button to call a nurse.

About this time Sanyo workshop service charges was \$24 per hour for audio and \$32 /h for video. I have no record of our charges at the time but was at least half those of Sanyo. Philips also charged heavily and may have been the highest.

## Holidays to S.E.Asia

On the 24th of June we departed Brisbane and arrived in Singapore.

We had arranged with Austas to again collect our DSS 'phone calls and pass them onto Maria who then contacted Rod Dinte. She did a great job as usual, also Rod Dinte.

Austas charges for the service was \$35 per week which totalled to \$140 for the four weeks.

We returned from South East Asia on Wednesday the 28th of July.

On Wednesday the 11th of August I made my first ham contact, on 2 metres since 1961. When we were in Hong Kong I purchased a 2 metre Trio handheld transmitter receiver unit. It was a TRIO TR2500 which cost me AUD\$240.00, not cheap. Things had advanced a lot in the time that I was last on the air. My ham radio enthusiasm was replenished.

On the 8th of August I made my first mobile contact with it to VK4BNL. On the same day I made my first contact via a repeater station.

For my 2 metre mobile installation in our Ford, I made up a bracket on the dashboard for it to fit into. I also made up a timer that I set that allowed me to talk (transmit) for about three minutes so that I wouldn't ramble on whilst driving. I also made up a headphone and boom microphone unit. It was ahead of its time as I hadn't known any other hams with such a device. I spoke to hundreds of hams and only a handful had a boom mic/headphone setup. It was much safer using it whilst I was driving, great!

A repeater station is a receiver and transmitter that is usually situated on a high altitude such as a mountain so that 2 mt line of sight communications can exist between the transmitter at ground level at a distant point. The repeater transmits so the the other station which would be at ground level and at a distance can receive the signal. In the case of the Brisbane repeater, it was situated if I remember correctly on Mt. Glorious, about 70km north-east of the city. This meant that hams in the greater

Brisbane area could make contact with only milliwatts of power.

There were and still are repeaters all over Australia, indeed the world. Other repeaters in South East Queensland were at Darling Downs, Gold Coast, Ipswich, Sunshine Coast and a RTTY station at Mt. Cotton, VK4RBT.

And so I was having a great time again but the technology had changed so much that making equipment from scratch was minimal. I think the last piece of equipment I made was the Ford's dashboard unit I mentioned above.

1983

### Dick Smith

Dick Smith was a young man who started his electronics parts business about 1975 in Sydney. His business grew strongly due to his immense drive and enthusiasm.

New semiconductor had been developed where new Op-amp chips used BiFET and BiMOS devices. Other devices were now in use including MOSFET. I'm not going to explain how they work as it's much too technical for myself anyway. We in the service industry took these new devices as another thing to try to learn about, which I suspect most didn't either because of time required or were not interested. There were really no schools or learning sessions conducted by the manufacturers of such devices other than what was taught by the formal educational schools such as University and TAFE. In any case by the time one learnt such things they almost became old hat and not suitable for our servicing of home equipment.

We service men usually didn't have the time.

The equipment I serviced became more complicated not only in regards to the electronics but also the hardware. Although I was not replacing individual components as I did decades ago such as resistors, capacitors, transistors and so on but whole parts of a circuit which were built into a chip. RF, IF, AF and power supply chips. Dismantling the unit to get at the circuit boards became a problem. Whereas years ago things were screwed together but they were now held together by clips. The clips were part of the plastic case, mounting section or printed circuit board.

I had to either push where a clip was or pull it. There were no instructions unless one had obtained the expensive service manual. A real pain!

I intended to use my new Trio handheld in New Zealand so I made a plastic pouch with a belt so I could wear it. The Trio had its own inbuilt microphone but I bought a standard hand mic to use. I had been grass skiing for some months and tested it the first time at Samford grass ski park. It was successful. I obtained a temporary NZ ham licence for the trip and inserted an advertisement in the NZ Ham magazine asking if any Ham could help me in regards to accommodation. Marie would be with NZ friends for some of our time in NZ. A Ham offered me accommodation in Oakune which is at the base of Mt. Ruapehu, the skiing part called Teroa.

More N.Z. Holidays

Circuits, solder and JD

Yes we went to New Zealand again, our flights costing \$342 each. We used Austas again to be our telephone service who directed business calls to Rod Dinte and private calls to Maria who was still living at home.

We departed on the 4th of July and returned on Tuesday the 2nd of August.

My temporary NZ call sign was ZL0TAB. I used in on the mountain in my ski gear on skis and made about forty contacts in total.

Most contacts were via NZ repeaters, one was via a repeater on the north of the South Island which means it was a long distant contact, about 500km round trip. Fantastic from a little hand held but of course I was about 2000mt ASL so the repeater was line of sight.

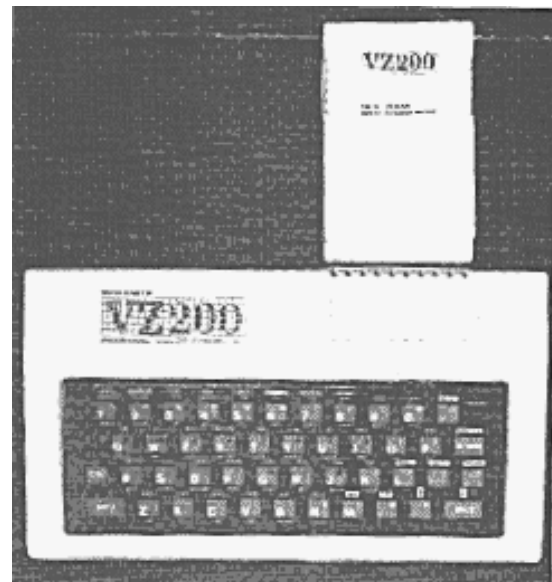


Two NZ QSL cards

My hearing

Some time in August I experienced my first hearing problem. My left ear went a bit deaf for an hour or so, well not 100% deaf but the high frequencies above about 1 kHz were non existence. I began to think if this would happen again, if so it would make things difficult for me as my work evolved sound.

### VZ 200 Computer



My first VZ 200 computer

On the 4th of November at a computer expo I purchased a Dick Smith VZ200 computer. It cost me \$199 which had only 24 kb of memory. The system included only the 12v power pack and small operating book, nothing else. I used an old black and white TV to use with it as a VDU (screen). From this my interest in computer

became stronger. It meant I could see things, text and graphics on a VDU which was a small black and white TV at first. The VZ had eight colours but I couldn't see them on the TV.

At this time 5¼ disks were expensive at \$26.95 for ten in a packet. That's right, \$2.99 each. More expensive Verbatim disks cost \$63 for ten, \$6.30 each.

Sometime during the year I had a gentleman's agreement with a firm to repair home vacuum cleaner systems. I think its name was "Valet Ducted Vacuum Systems".



*Valet System advert*

The brand name was "Valet" and consisted of a big motor mounted at the rear of the home which created a vacuum. The pipes were routed from this unit to various rooms of the house. A wall plate was situated low down like a power point and a vacuum hose and head similar to a normal vacuum cleaner would be plugged into

it. This switched on the big motor and the cleaning began. The system is still being installed in bigger expensive homes for people who can afford it.

In December I did a job for Valet at a big house at Scarborough. I only did perhaps three or four in a few months. The firm paid us without problems so I don't know why the jobs ceased.

At one stage we had our D'Alton business card printed at the bottom our address as **Torwood, a locality of Toowong**. We had to do that because many people became confused between the two suburb names.

Jobs during the year were, St Andrews Hospital, Queensland Lawn Tennis Association (QLTA), Carmelite Monastery, Newmarket Hotel and the Paddington Tavern.

1984



*JD in DSS dustcoat*

During the month I walked and visited many city hotels and restaurants to advertise our DSS business as by now work was becoming harder to get. Sometimes I did this in a suit or in my nice clean white dustcoat as pictured.

I bought a printer for my VZ200 computer which was a Seikosha model GP100 new for \$295. It used a ribbon but was not a dot matrix type in that it had a revolving roller which was hit by a little bar. What a step up from the old 15 teletype.

On Friday the 9th I attended the funeral of Viv Gold at the Mount Thompson Crematorium.

### Le'VZ 200 OOP

Some time this year I commenced a little club and published a one page newsletter which I called "LE'VZ 200OOP". OOP stood for "VZ Owners and OPERators".

### Holidays to the Snowy Mountains

We departed by our car in April and arrived back home on the 8th of May. While in Sydney I visited the agents for DUAL which was a company called The Falk Electrosound Group which was in Rockdale. I received much information and service data as servicing the Dual turntables provided a big percentage of our income.

Again we arranged with Austas to take all 'phone calls and divert them to either Maria or Rod Dinte.

On the 16th Marie and I attended a meeting which was a Steering Committee for the newly proposed "Electronics Communications Industries Association". It was to be a voice for the industry that we were in, namely communications. I think that we did have a couple of more meetings but it never got off the ground.

During September our backup man Rod Dinte and his wife, went on holidays so we were his backup this time for four weeks.

I did jobs for him in various home units that had intercom units between the front door and the units. These are very common these days as they also provide good security. The front door which is usually on the ground floor can only be opened by a tenant electronically. Other jobs were to senior citizen housing parks where there are call systems for communication from each room or unit to the office.

When a button is pressed a signal is shown at the master unit in the office. A similar system which is called a "nurses call" is used in all hospitals. A button on a flexible cable is placed near the patients hand so it can be pressed if needed. I had never had much to do with these "nurses call" systems even though I had serviced most Brisbane hospitals.

## The "AT" PC Released

In November the "AT" computer was released. "AT" stands for "advanced technology".

Some jobs during the year were,

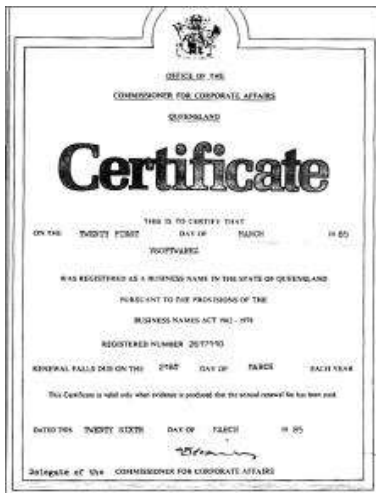
Carlton Brewery, Paddington Tavern, Marist Brothers College, St. Columbans College, St. Josephs Convent, All Hallows Convent, Grace College, Corpus Christie College, Villanova College, Toowong Uniting Church, Royal Aero Club, Fyfe's Flying School, Toowong Senior Citizens, Gardens Point Campus Club, Rhonda Collieries and Robertson Dance Studio. That was commonly called the Ritz and it was another dance place Marie and I attended a few times.

Other jobs we did were due to arrangements that we made with John Brimblecolme who operated his own service business servicing mostly electronic organs. We didn't do more than about ten jobs for him though. I also made arrangements with a Bob Oliver who operated Brisbane's only Grundig agency. Grundig is a German firm that manufactures high quality and expensive radio, audio and video equipment. The units were quite complicated and hard to service. I serviced only a couple of these units.

## 1985

Sony and Philips developed the standard for Compact Disc Read Only Memory (CD-ROM) which used the same laser technology as the audio CD.

## VsoftwareZ



*VsoftwareZ Registered name*

This year was the year that we registered another business name, "VsoftwareZ" which was the computer side of DSS. As I was doing a lot of VZ software business we registered the name "VsoftwareZ".

In early August the IREE Computer Club was closed down because the attendances were becoming smaller. It was commenced in

June 1977 when John and I were founding members. In eight years microcomputers had changed from simple units without screens (VDU), keyboards, disk drives and mouse to forerunners of the systems of the 1980s.

I was now placing advertisements in various magazines for VsoftwareZ. I wrote a small data base application which I named "LeVz Data Base" (I sold about ten in total). The advertisement as pictured was in the September issue of Electronics Australia. The disk unit was a 5¼ floppy that held a maximum of about 80kb of data.

**VZ200/300: Disc base data base at last, a useful data base unit for personal or small business use. \$98.00. Also other quality software, educational, machine/L and games. Send large SASE to: VSOFTWAREZ, 39 Agnes St., Toowong, Qld 4066. Ph (07) 371 3707.**

### *Our DataBase advertisement*

During July I demonstrated my Dbase and other software to various Dick Smith stores in Brisbane and the Gold Coast. As the usual sound and radio work was becoming less I/we thought we should diversify.

On Saturday the 5th, the day after my birthday, I did my first tuition of the computer language called "BASIC". This was on the little VZ200. I also visited various schools about me teaching BASIC. Nothing became of this venture.

On February 10th to the 23rd power union workers went on strike. Parts of Brisbane and I think elsewhere were without power for short periods of about one hour at times.

I decided to install a small 12 volt emergency lighting system which ran off the car battery in the workshop. I installed small incandescent and fluorescent lamps in all three bedrooms, both lounges, kitchen, bathroom, workshop and in the garage. Shortly after the Bjelke Petersen state Government sacked all the power workers and had new workers employed in their place.

## Holiday to Rockhampton

On Wednesday the 27th we departed home and took Mum and Dad Ebert with us.

To attend to our DSS business for this short time Maria used our telephone answering machine and sent various DSS service calls onto Rod Dinte. Maria was living in our home, her home.

We went to Rockhampton because Marie attended a cacti convention. While Marie was at the convention I visited some people and the local Dick Smith store and demonstrated some VZ200 software of which I sold a few pieces.

## My First Computer Expo

As my little VZ club was gaining strength due to my by-monthly newsletter and contacts with Dick Smith stores, I decided to hold a mini show.

On Saturday the 7th I held it in our Panorama Room. About twenty people attended, more than I expected.

So you see we added another string to our bow, computer software using our little VZ200.

Of course I still carried out the usual sound and intercommunications service but that work was becoming less and less due the the reliability of new technology.

Some jobs during the year were,

Nundah Convent, St. Andrews Hospital, Newmarket and Calamvale Hotels, Paddington Tavern, Brigidine College, Indooroopilly and Coorparoo S.H.Schools, Aspley Acres Caravan Park, Queensland Sporting Club,

St. Peters and Marist Brothers Colleges, Toowong Uniting Church, Symes Grove Aged Home, Tattersalls Club and Milton Bowl. Of course as usual there were all the jobs that people brought into our workshop.

In October the Intel 80386 microprocessor chip was released.

In November Microsoft released Windows Version 1.

## 1986

During March Mr Evan Edwards who was a teacher friend at a high school arranged for me to visit someone at a State Government Department where we could get some contract work.

The department was called the "Department of Noise Abatement" (DNA). I got the job which entailed me doing work in the department's electronic workshop which was in Charlotte Street. DNA handled problems concerning noise. This was the commencement of the environmental age in Brisbane. DNA used very good expensive equipment such as Brüel & Kjaer which was manufactured in Denmark. DNA also used other brands such as Sony and National.

Out in the field the technicians used a portable noise unit which was connected to another unit. Also a tape recorder. Back at the workshop the recordings could be digitally analysed and so on. It was my job

to keep the Ni-CAD batteries and cells charged and keep units in good condition ready to be used out in the field. There were always lots of cables to be fixed. Next to my workshop there was a special sound proof room set up that had a rotating boom microphone setup.

This was a good job as I could go in and work when I



*A DNA B&K analyser*



*Part of DNA workshop*

wanted to or on a few occasions when they wanted me. I also used their Apple computer in which to enter job service records. DNA paid us by the hour which we invoiced them for monthly.

## Skiing for me in Victoria

On the 20th of July I departed for my skiing holiday to Mount Hotham in Victoria. There was plenty of snow and it also snowed while I was there so I had a great time. I bought a package and paid extra so I could have an apartment by myself in the Arlberg Apartment complex.

I did make a couple of Ham contacts using my Trio handheld and the pouch I used in New Zealand but my Ham interest had waned again.

I arrived back in Melbourne seven days later and visited some Dick Smith Stores to show and leave with them my special VZ300 computer demonstration disks. I arrived home on Wednesday the 30th.

On Monday the 25th of August we had our first high school Work Experience lad. He attended the Kelvin Grove State High School and his name was Kevin Russ. He helped me to do various things in the workshop as well as go with me on outside service jobs. As outside service work was becoming less often he may have only experienced a couple of jobs during this time. I think it was only for one week.

## VZVZVZ book

About this time I printed a book about the VZ computer that I named "VZVZVZ". It was A4 size of about 50 pages which I sold for \$18.50 which included postage within Australia. I printed hints, ideas, programme listings and lots of interesting things for VZ users. I later sold about twenty of them.

By now I had published fifteen LeVZ OOP magazines and Charged \$2.00 each for them, I think ten pages in later issues. I had about three hundred (300) members in my little club, not at the one time though which was all operated by mail.



*My VZVZVZ book*

## My 2nd VZ Expo

On Saturday the 13th of December I conducted my second VZ computer expo at the Milton State Primary School. I set it up in one of the rooms in the library building. I had a few other VZ friends also set up their systems. Larry Taylor, Bob Jones and others. I had about 100 visitors and so it was a great success.

One of the newest computers on the market was the UNIX unit. It was not successful in the private market but gained some acceptance in the business world. Networking was also becoming popular that enabled a number of computers to be connected together. The first luggable portable PC was manufactured by Compac which used a 386 CPU.



## 1987

I have not mentioned so far that in the last year or so I had been distributing and selling software for other writers. Larry Taylor wrote educational units and Lesley Milburn in NSW wrote a very good word processing unit which he called “**Quickwrite**” and was excellent. It was on a 18cm floppy disk. There was never a better one released by anyone else. Version 3.1 had arrived for me to package and sell. He wrote the instructions and I reduced the size and photo-copied them into a little A5 booklet. Quickwrite was a disk based unit which I sold for \$40. I later sold forty seven units so we earned a nice sum.

Of course it did not have the thousands of facilities the modern ones have but it was a big step at the time because the one that DSE were selling was a very basic unit on cassette tape.

### Brisbane Grammar School

During April I had come to a gentleman’s agreement with Mr Alan Shurety of the Brisbane Grammar School that I would service the school’s audio/visual equipment. This I could do at my leisure during school vacation times, that is four times per year. There was a lot of equipment to service. Actually I only checked, cleaned and tested the equipment. If I found any faults then I reported to Alan and he serviced the unit.

The first room was the language laboratory which had a Sony sound cassette system. Forty-two booths with recorders and headphones. Plenty to go wrong and be tampered with by students.

### My 3rd VZ Expo

On Saturday the 5th I was up early to take my VZ computer equipment and a young VZ lad to the Tingalpa State High School for another VZ Expo.

Some of my VZ computer friends were, Bob Jones, Bob Kitch, Larry Taylor, Mark Harwood and many others.

We occupied two normal rooms, one with all the computer gear and the other with a television and VCR which I played some of my own tapes about the VZ computer I had made and also some ordinary video tapes for parents who brought their children and were not themselves interested in computers.

I even held a lucky door prize which Bob Kitch won. About one hundred and fifty people attended.

I also arranged that Norm Wilson give a lecture about his braille equipment for sight impaired people. He was a pioneer in this very necessary field.

During 1987 new computers were released, some being, Apple IIGS, Kaypro and Apple Mac. The language CPM was now old.

Applications were, PageMaker, Word Perfect 4, Wordstar and Xtree.

DSS jobs included; Waterworks Sleep Co (water beds), CIGases, Country Womens Association (CWA), Fyfes Aviation, DNA, Brisbane Grammar School, Kedron Wavell Services Club, Garden’s Point Campus Club (old QIT at the eastern end of George Street), Royal Aero Club, Nudgee Junior College and many electronic organ jobs.

## Servicing video tape recorders

I had become friendly with Wayne Kirby who was operating his electronics service business from his home in Birdwood Terrace and named his business “Vidifix”. He was our back up for video recorders (VCR) that I couldn’t service. This entailed a lot of cleaning and replacement of rubber belts and wheels. Any job that was too difficult for me we passed onto Wayne. We also passed on to him any television service calls. It was a handy relationship. He was always helpful by giving me service hints.

During 1987 the Apple Macintosh II was released onto the market. It was a 32bit machine using a 68020 CPU and was very popular. IBM released its new PS/2 computers with the OS/2 operating system installed. Using the new 9cm (3½”) floppy drive, a 286 CPU and VGA graphics. The computer company called Atari released a CD ROM player that could be interfaced to an Atari computer. The CD music player and disc was a new sound medium that revolutionised the sound hi-fi industry and now it was going to do the same to the computer world.

### Gardens Point Campus Club

I built a sound rack for the Gardens Point Campus Club in George Street which is now part of the QUT/University of Queensland. It was at the most southern part of the campus overlooking the river. Here is an image of the rack which was not a metal one but a nice wooden one. This I had built by someone who I don’t remember. We supplied the electronics. An amplifier, cassette tape recorder, radio tuner and switches for the various speakers. It was a nice coloured unit to match the office decorations.



1988

### Our USA Holiday

On Tuesday the 29th of March Marie and I departed on our holiday to the USA. Fantastic!

Our son John, Lyn and Doug Shaw were house sitting for us which was convenient for such a long time as we didn’t return until June. Maria John and Lyn took messages off the answering machine and directed calls to Rod Dinte and Wayne (Vidifix).

### World Expo Brisbane

It opened while we were in the USA. It did not make any difference to DSS but it was a great event. It put

Brisbane on the world stage so to speak!

## Another VZ Expo

On Saturday the 3rd I held another VZ computer show at the Tingalpa State High School. Time was passing so the attendance was not great because people were moving over to other PCs, IBMs, Atari, Apple and so on.

Some jobs during the year were, St.Laurences, Nudgee Junior and Brigidine Colleges. RQ Aero Club, Pizza Hut, Greek Taverna Restaurant, Gardens Point Campus Club, DNA and St. Andrews Hospital.

One particular job was for a man named Mr George Schofield who lived at Wilston. He was a short wave listener and had about twenty different radio receivers in his house. Many were the very good Eddystone brand that I think were manufactured in the UK. He listened on all bands and heard many world events as they happened. Many of the receivers were army disposals units. I repaired some five or so for him. It was very interesting servicing the units and almost no expense was spared on the jobs.

## 1989

I did a quotation with the help of Rod Dinte for one of our best customers, Grace College which is a girls college at Saint Lucia. It is run by the Uniting Church. We quoted \$2061.00 to reposition the main console of the intercommunications to the new office about 30 mt from the old office. The system was a Philips system installed by Reg Robertson back about 1968, The system communicated from the reception office to about two hundred rooms at the college.

About this time we received a letter from The Federated Furnishing Trade Society of Australia (FFTSA) in Melbourne. It was about a dispute between them and a trade union in the furniture trade that was to be heard in the Industrial Relations Commission (IRC) in Sydney in June. The letter suggested that if we thought it did not concern DSS (us) that we send a registered letter to the IRC to inform them that we would not attend. We sent the letter post-haste. We assume that the FFTSA may have thought we were building boxes and cabinets for speakers and other sound equipment, which of course we weren't.

Just another little hassle in business.

## Rod Dinte On Holidays

On Monday the 24th of July Rodney and his wife Noelene had their holidays so DSS would do their service jobs for them. Some jobs were, Red Cross at the RNA, Nudgee College and Queensland Cancer Fund. They returned on the 19th of August.

## Victoria For Us

We had planned our holiday to Victoria and to fly by Ansett but all pilots of the big air companies went on strike. We were lucky to buy seats on Greyhound Coaches so that was our next option.

On August the 31st we departed by Greyhound Coaches to Melbourne via Toowoomba and the Newell Highway which travelled during the night and arrived in

Melbourne the next day. We had a lovely time and arrived back home on the 16th September.

As before, Maria took the messages off our telephone answering machine and directed the various jobs to either Rod Dinte or Wayne Kirby (Vidifix).

Some jobs during 1989 were,

DNA, Hando's Hi-Fi, Robertson Dance Studio (Ritz), Toowong Fitness Centre, Red Cross at the RNA, Royal Qld Aero Club, Lorraine Martin College. Grace College, St.Francis Convent, All Hallows, St. Joseph's School, Toowong State High School and of course the Brisbane Grammar School.

## 1990

By now I was thinking about retirement, all going well in 1996. Business was becoming less and less and serving was becoming more difficult and technical. People were more knowledgeable and were being more aggressive, complaining about costs and time.

## VsoftwareZ Deregistered

On the 21st of March we deregistered VsoftwareZ due to lack of business in that area. We registered it in March 1985, five years in operation, an interesting time. Another era had passed. We sold forty-seven copies of QuickWrite which was quite good. Leslie earned a good percentage of that, I don't remember or can find details of the amount in dollars.

## Le'VZ OOPs Final edition

In May I produced my final and last edition of my Le'VZ OOPs Newsletter which I posted to about thirty people. Bob Kitch and Harry Huggins wrote nice "Letters to the Editor" thanking me on behalf of others for my contribution to the the computer world. Harry Huggins operated his VZ club he called "VZ. Down Under Club".

Since my #1 issue in 1984 I produced the LE'VZ every few months, the final one was #27. The later ones I charged \$2.00 per copy. It was the longest running VZ newsletter in Australia and New Zealand at the time.

I also closed the little club but kept VsoftwareZ operating to clear out software and bits and pieces.

During September I placed an advertisement in the October/November 1989 issue of "The Professional Musician" newsletter. With my VZ300 computer and the wordprocessing unit that I sold called "Quickwrite" I had designed a new typeface. You can see the words 'D'ALTON SOUND SERVICE" in the typeface.



*My final Le'VZ OOP*

On Saturday the 22nd we celebrated twenty years of D'Alton Sound Service at Sizzler's restaurant in Toowong which was originally named D'Alton Radio and Intercommunications Service.

## My Hip Operation

At last I went into the RBH on October the 1st, a Monday to have my right hip replaced with a metal one by Dr. John Fraser. Maria attended to DSS jobs but I don't think there were more than about ten.

Some jobs during 1990 were,  
BI-LO

supermarket stores at Toombul and Stafford, Mater and St Andrews Hospitals, CIGases, Toowong State High School, Bardon State Primary School, Brisbane Grammar School and Auchenflower Bowls Club.

Touchphones were released in Australia.

## 1991

We carried on as usual at DSS as well as I had become involved with the World Lions Convention. Lions being the service club not the Brisbane Lions football club.

I did a lot of work for the Toowong State High School.

Some jobs during 1991 were:

BI-LO store Stafford and Logan Hyperdome, Dutton Park and Fig Tree Pocket State Schools, Nudgee Junior College, Franciscan Sisters Convent, Sheraton Hotel and Qld Commercial College.

Regarding the Dutton Park State School I must point out to the reader that Boggo Road Gaol (prison) was still being used and was about 100 mt from the school.

## 1992

We purchased a used Holden Commodore station wagon and traded in the Ford. We nicknamed it Butterfly. I never installed any radio equipment in Butterfly. Another era had passed.

## My 286 AT Computer

After John helping me with advise on what to buy and scouring the Trading Post, he went with me to a house in Saint Lucia to check the most likely one in a price range I had decided on. This was on November the 14th, a Saturday morning. It was great to see the colours on the screen of pictures and so on. I paid about \$ 900 for the complete setup. A 286AT with 1mb of RAM, a 40mb hard disk, both 9cm and 13cm floppy disk drives, 110 keyboard, and of course a VGA VDU (monitor).

It did not have Windows installed on it so all the software that was installed was all DOS software.

In regards DSS, I walked various parts of inner

Brisbane and Fortitude Valley visiting various places to drum up business but with only about 5% success rate. Things were very tight. When one drives around an area one thinks things look OK but when one walks along the street one sees disused buildings, broken windows, grass and weeds growing. Paint peeling off and so on. A saddening experience.

Some jobs during 1992 were,

Dutton Park, Ascot and The Gap State Schools, BI-LO Stafford, Kenmore Catholic School, Qld Commercial College, Toowong State High School. Also CIGases, Thai Restaurant and many others. One small job was for the Queensland Government's Criminal Justice Commission on a VCR costing we tax payers \$37.50.

## 1993

One interesting happening is that in 1993 I installed a mouse to my 286AT computer.

## AS EASY AS

For our DSS business I switched over from my own VZ300 computer spreadsheet to As Easy As for DOS which was similar to Lotus 123. As Easy As was developed by a company called Trius. It cost me about \$50.00.

In March I purchased my first colour printer. A Panasonic (National) 24 pin dot-matrix unit for about \$670.00. The ribbon consists of four colour bands. From then on I made my own birthday, Christmas, Easter cards. It was great fun.

## Sold My VZ300

A man and his young son came one Saturday and bought some of my VZ system for \$120.00. It was a sad occasion but I got my monies worth in the time I used the VZ computers.

## Me and windows 3.1

I installed Windows 3.1 which was a new adventure for me. This of course meant space on my 120mb hard drive was less but I managed OK.

Some jobs during 1993 were,

Gap and Toowong State High Schools, BGS and Bardon State School, and CIGases.

## 1994

## My new 386DX40 Motherboard

With Johns help I upgraded to a new 386DX40 motherboard in March 1994. It cost me \$290.00. I also bought some RAM chips, 1mb for \$95.00 which consisted of four 256kb chips which gave me a total of 1mb (one mb) of RAM. I was quite surprised at the increase of speed which my PC ran. It was much faster. I also purchased a new SVGA video card which gave me an increase from the amount of colours I could see from 16 to 256 colours. Great!

The world became more safety conscience which meant everyone had to take more care in all sorts of occasions. When I went to BOC, the big gas plant on Ipswich Road at Rocklea, I had to put on a helmet and

boots. I had to sign for them.

Some jobs during the year were,  
Queensland College of English, Nudgee Junior  
College, Brisbane Grammar School, Milton Ten Pin  
Bowl, CIGases and Terry White Pharmacy at Toowong.

1995

### Our Last Holidays During D'Alton Sound Service Period

On Friday May the 12th we drove to an RCI resort in  
Coffs Harbour in NSW being the Club Booralong. We  
visited the main attraction there which is the Big Banana.  
Maria used our telephone answering machine to direct the



*DSS closed down 1995*

service calls to Rod Dinte and Wayne Kirby.

### D'Alton Sound Service Closed

This historic event took place on Thursday the 30th of  
November.

See the photo of Marie and I holding the signs in the  
office.

The next day, Friday the 1st of December I was  
unemployed.

On Monday the 4th of December we took Maria to  
Indooroopilly Shoppingtown. At the same time I went for  
the first time to the Commonwealth Employment Service  
(CES) to start the procedure for me to look for work and  
be on the Department of Social Security (DSS) system.

The next day we both went to the DSS in Toowong to  
fill out more forms.

I contacted the Qld Business Names Department and  
deregistered the name, "**D'Alton Sound Service**".

Some jobs during 1995 were,  
Uniting Church Administration Rosalie, Milton Ten  
Pin Bowl, BOC (CIGases), Seiko Watches, Ashgrove

Fitness Centre, City International Duty Free, Toowong  
and The Gap State High Schools.

So now I was more or less retired. I had to visit two  
work business' per fortnight looking for work. I did not get  
any. Surprise surprise!

This lasted for a couple of years then I was put on a  
Mature Age Allowance, a pension. A little later Marie also  
received a Partner Allowance pension.

For the next five years or so we had 'phone calls and  
people visited us requesting me to service something but I  
refused. I was retired.

I did actually do about five jobs for a few months of  
1996 but people wanted work warranty which I was not  
prepared to give, I might have as well opened up for  
business again. Not for us!

### Some last notes

I have not mentioned the companies that  
supplied parts in later years, in the 1980s and  
1990s until we closed DSS.

Up until the 1990s each manufacturer had a  
service and spare parts division in most capital  
cities of Australia. They were usually very good in  
respect of giving service information, manuals and  
parts sales. A few brands had private business' that  
were agents in this regard. It was good to have a  
good relationship with someone in each place. In  
the late 1980s and until 1995 when we closed DSS  
this situation deteriorated which made our service  
work difficult and expensive. Now when I type this  
in 2005 I am glad that we are not in the service  
business any longer.

### Test equipment

I used a variety of test equipment, gadgets and  
tools.

The usual meters, signal generators, signal  
tracers, oscilloscopes (CROs) and others.

Special test tapes for most units, testing speed, torque,  
sound and so on.

An untold number of test cables, leads with various  
ends, plugs and sockets. Also little adapter plugs and  
sockets.

Also the special test units I mentioned earlier.

On the following pages I have images of some parts  
and others which I did not include in the main body of the  
text.

I hope the reader enjoyed my book which may be of  
historical value.

John C.E. D'Alton.



Some of John's radio service tools

Here I have two images of some of the servicing tools and gadgets that I used over the years. Most are for electronics, the rest are for computer servicing.

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Cassette tape demagnetiser</li> <li>2. Roll of solder 60% tin, 40% lead</li> <li>3. Solder wick, to absorb melted solder away</li> <li>4. Speed stroboscope to check tape speed</li> <li>5. Solder sucker, spring-loaded which sucks melted solder</li> <li>6. Probe, digital to check low and highs, 0 or 1</li> <li>7. Third hand, movable long clamp to hold things</li> <li>8. Demagnetiser of tape heads</li> <li>9. Integrated Chip (IC) inserter into a socket</li> <li>10. Hole punch, cuts hole in metal by turning the nut</li> <li>11. Hole cutter, rotary</li> <li>12. Solder wick, to absorb melted solder away, thicker</li> <li>13. Finger nail polish, stick an adjusting screw or nut</li> <li>14. IC adapter, clamps onto an IC and another IC plugged in on top</li> <li>15. IC similar as above</li> <li>16. Coil slug alignment tools, three different types</li> <li>17. Punch, flat</li> <li>18. Spanner, tube, hexagonal and punch, round</li> <li>19. Wire wrapper</li> <li>20. Screwdriver, double ended</li> </ol> | <ol style="list-style-type: none"> <li>21. Spiker, a dentists tooth pick</li> <li>22. Mirror, small</li> <li>23. Torch, small</li> <li>24. Screwdrivers and spanners, set of small types</li> <li>25. Toothbrush</li> <li>26. Spanner, grips</li> <li>27. Pliers, small point nose</li> <li>28. Side cutters, small</li> <li>29. Side cutters, medium size</li> <li>30. Circlip remover, circlips with two holes</li> <li>31. Circlip remover, as above</li> <li>32. Paint brush</li> <li>33. Spanner, tube hexagonal</li> <li>34. Allen key on a handle</li> <li>35. Allen key on a handle</li> <li>36. Screw driver, medium size</li> <li>37. Screw driver, pump action</li> <li>38. Screw driver with little clamps to hold a screw</li> <li>39. Screw driver, long Phillips</li> </ol> |
|---|--|

## Here are some more gadgets I used.

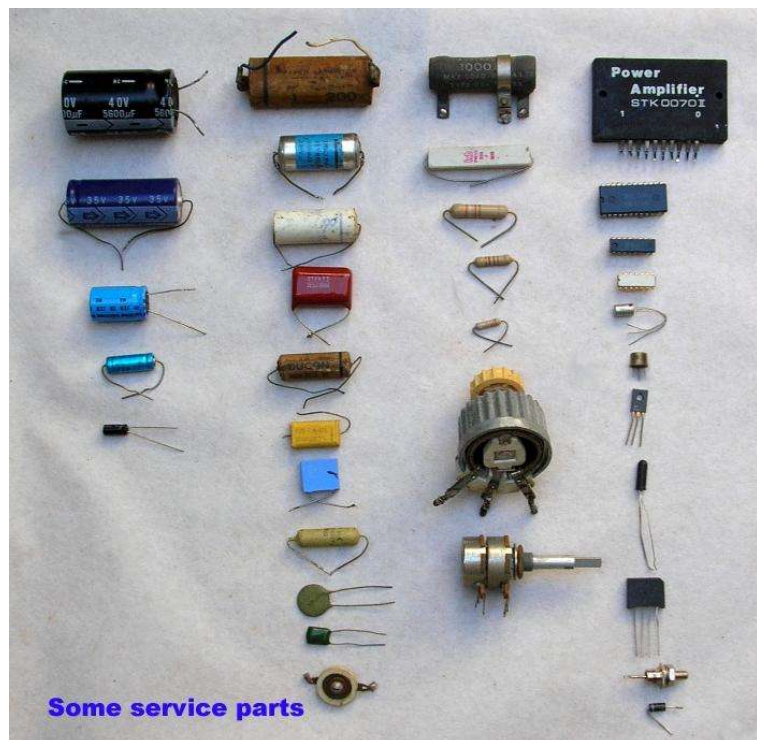
1. Torch on magnifying glasses, clips onto head
2. Soldering iron, used two NiCAD cells
3. Cleaning liquid, sprayer
4. Contact cleaner, pressurised sprayer
5. Headphones
6. Oil can, small
7. Soldering iron, 240 volt
8. Magnifying glass
9. Hair drier, to heat things
10. Light, clips onto head



## Here are just a few of the types of parts with which I dealt.

Left to right.

1. Five electrolytic capacitors
2. Eleven capacitors
3. Seven resistors, adjustable 20watt, 5w, 2w, 1w, ½w and two variable.
4. Four ICs, four transistors and three diodes



Here are a few images which I did not include in the main body of my book.



Record changers were popular.



1952 Brisbane City  
Brisbane city when I arrived.

A petrol engine similar to the one dad bought for me to use when we lived in Narangba, for my radio gear. We had a 12 volt generator fixed to it run by a belt.



Circuits, solder and JD

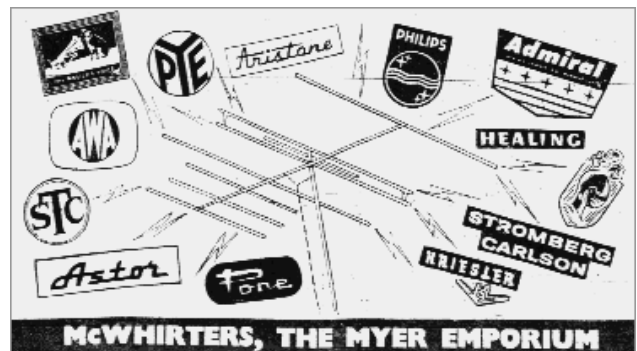
A Melbourne store called Veals' advertisement of the time.



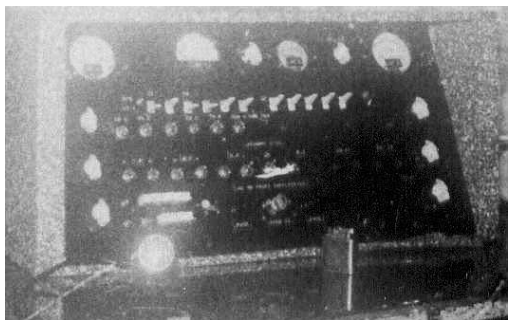
A loop antenna which we called a loopstick. The rod was very fragile so many service jobs needed them to be replaced.



A valve tester similar to this one was a great help in the early days of the valve era. Various sockets and various voltages could be selected to do most tests.



Here are a few popular brands of radios and TVs in an advertisement by McWhirters which was a big Brisbane department store in Fortitude Valley.



A close-up of my special ham VK4ZAG console which shows there are four meters. It's a pity I did not take a better photo at the time, about 1963.

Our card for Dual service work.

AT ALL HOURS. PHONE 371 3707

**D'Alton Sound Service**

SERVICING ALL SOUND EQUIPMENT.....

NOW SERVICE AGENTS FOR ALL.....

Dual

- TURNTABLES
- RECORD CHANGERS
- AMPLIFIERS
- TAPE UNITS

**D'ALTON RADIO AND  
INTERCOMMUNICATIONS SERVICE**  
39 AGNES ST., TOOWONG

196x Fancy small TS radio

**SPECIFICATION**

Circuit.....Six transistors Super-het,  
Automatic Gain Control

Transistor .....2S-52, 2S-45x2, 2S-44, 2S-56x2

Diode .....IN-60

Frequency .....535-1605 KC

Sensitivity .....0.5 mV  
(Practical use field strength)

I.F.T. Frequency .. 455 KC

Output power ...100 MW (Max)

Battery .....9 V

Speaker .....2 1/4" P.M. Dynamic Speaker

Cabinet dimension...110 x 68 x 34 mm

Weight .....260 g without batteries

Earphone .....magnetic power receiver

Here is another debut of attractive pocket transistor radio "FANCY 6TR-20" manufactured under our specially controlled factory process and many years' study using superfine transistors.

Although the size is so small, the special designed dynamic speaker gives you clear and ample volume of that big set. Especially, both high Sensitivity and selectivity are some of advanced features of this "FANCY 6TR-20"

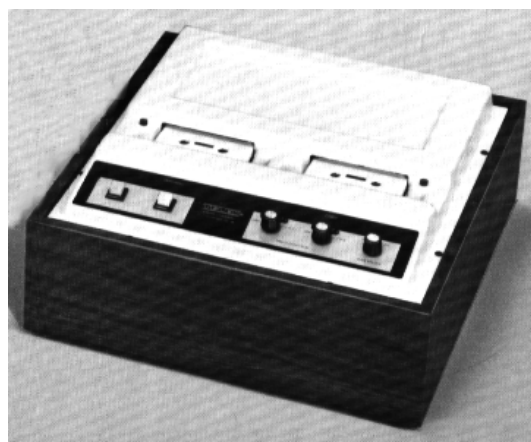
Out in the field or when you enjoy baseball match, take this in your pocket and take no time to know its convenience.

*Recommended Batteries*  
JAPAN BL-006P N.E.D.A. 1604 EVEREADY  
1216 RAY-O-VAC 1604 BURGESS 2U6  
G.E. 88

A little booklet complete with the circuit diagram of the little transistor radio to which we had to contend. They were very small which we were not used to working on.



Philips produced a host of reel to reel tape recorders.



Cassette tape copying was used mainly by schools and colleges. This is a two tape unit, copy from one tape to another tape. They operated at high speed. A one minute tape took about 20 seconds to copy.

I serviced Philips shavers when I had nothing else to do at Philips.



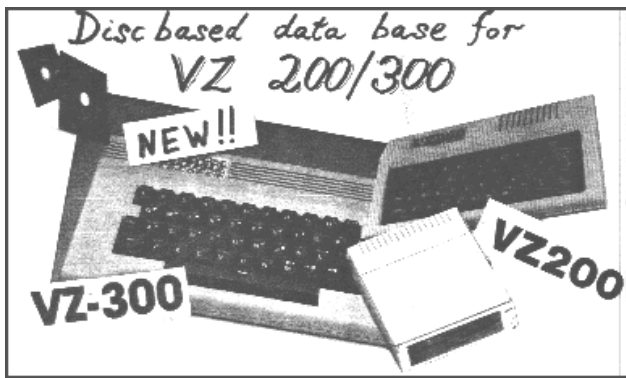
Philishave 3

An advertisement I placed in the New Zealand ham radio magazine for accommodation.

**WANTED:** Queensland amateur would like cheap **NOT** free accommodation during skiing holiday July 1983, Ohakune Raetihi or National Park, to ski Wahapapa and Turoa. I intend to operate a 2 metre hand-held on the ski fields as ski-mobile.  
— VK4ZAG, J. Dalton, 39 Agnes Street, Toowong 4066, Australia.

**BREAK-IN JANUARY/FEBRUARY, 1983**





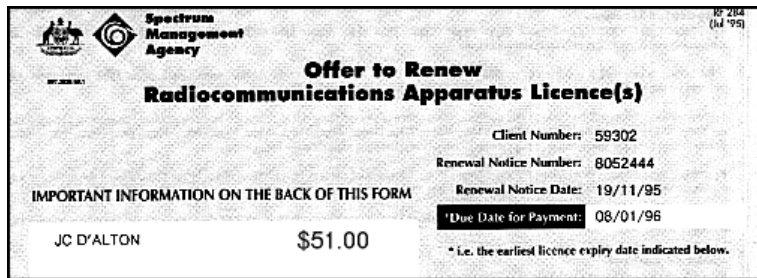
An advertisement for our disk based data base.



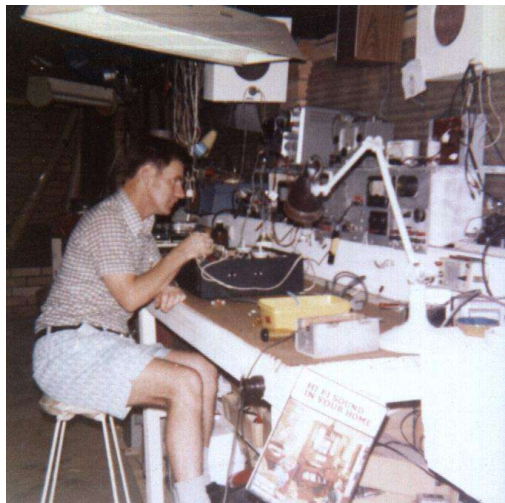
An A4 flier advertising our multicultural printing.



Some of our software, cassettes and disks on display in our office/workshop.



The reminder for my payment for my VK4ZAG ham licence which I did not pay so ending a major era in my life!



Yours truly in our workshop in Agnes Street DSS.



I built this capacitance tester probably in the 1980s.



This is a cassette tape demagnetiser where one pushes the cassette through the unit a couple of times.



I built this impedance meter which was not used very much but very useful when needed. I used it to check the Z (impedance) of speaker systems.



A little sound monitor to find the sound level which I hardly ever used. It would have been more suitable for people working in concert halls and such like.

The stylus used in a turntable should not be worn so to check this I used a small magnifying device. It has a little light and is fully adjustable.

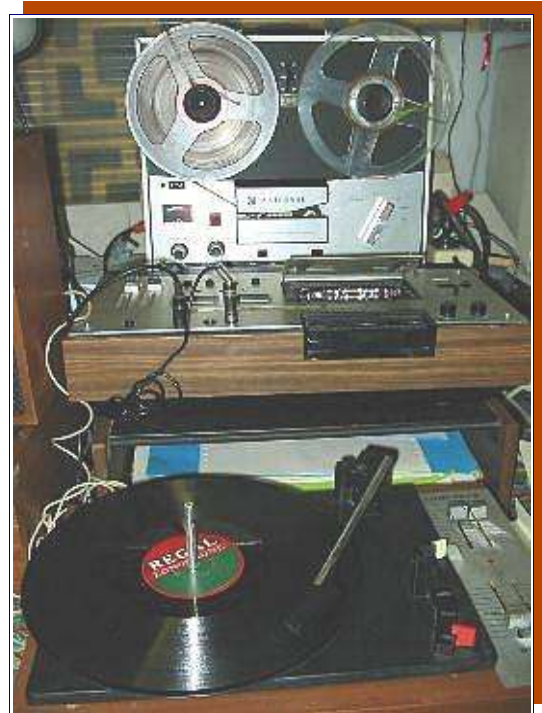


Another piece of equipment I built. It connected to the little SC/MP computer to operate an oscilloscope (CRO) with a signal generator to test amplifiers at various frequencies. I used it a lot.

And now an image of my present day equipment. This is some of my archiving equipment in 2005.



My VZ computer setup using an old black and white TV.



In the background is a reel to reel tape recorder, then forward an Akai glass head cassette recorder and at the front an old 4 speed record player. The computer these connect to cannot be seen but is to the right.

END.

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