

A Tale of Consequence and Remarkable Coincidence...

So, there's this guy down the pub (also called Tony by the way) who says :

“I've got an old telly – can you get it going ?

“Er, maybe – what is it ?”

“One of these...” he says



“Depends, might be proper knackered” says I

“oh, it does turn on...”

and shows me a bit of
video on his 'phone:



“Ooh... wait a minute... there's no channel selector, zoom in on that bit!”



And so, after promises of several beers, I got started.

Research

At first I thought it's be a doddle to get a service manual and Rediffusion transmission info online – but after much googling and reading dozens of “old TV” forums I found next to nothing.

Did buy a memory stick with loads of vintage TV service data and spent *hours* searching all the pdf files but didn't find anything resembling this set.

I did know a little about Rediffusion; at university in Hull all the TV's were wired Rediffusion and the rat-trap of a flat I lived in had a box on the wall that we got audio out of (didn't actually own a telly).

Some scraps of information about the Rediffusion signal hinted at several MHz AM for the picture and a “Tannoy” audio distribution all down twisted pairs.

{>>> A side tale:

When I was at Hull university in the 70's, I joined the *Technical Committee (TC)*. This was a student union bunch which handled sound systems, stage lighting and rental of amps, speakers and decks along with records, a DJ and a technician for student parties. I made beer money by being technician and transport (using my Reliant Regal Supervan II). We had an office in the union building where we stored and maintained all the gear. Most lunchtimes were spent hanging around in the office, sorting out kit or maybe making keys. In fact, making a key (usually by filing a bit of brass) which fit the office door was a kind of entry test to the committee. Essential really to make a set of keys to open almost any door in the university for getting equipment in and out or running power.

One day someone brought up the idea of having a TV in the TC office.

I think it's safe after all this time to admit to the plan we executed:

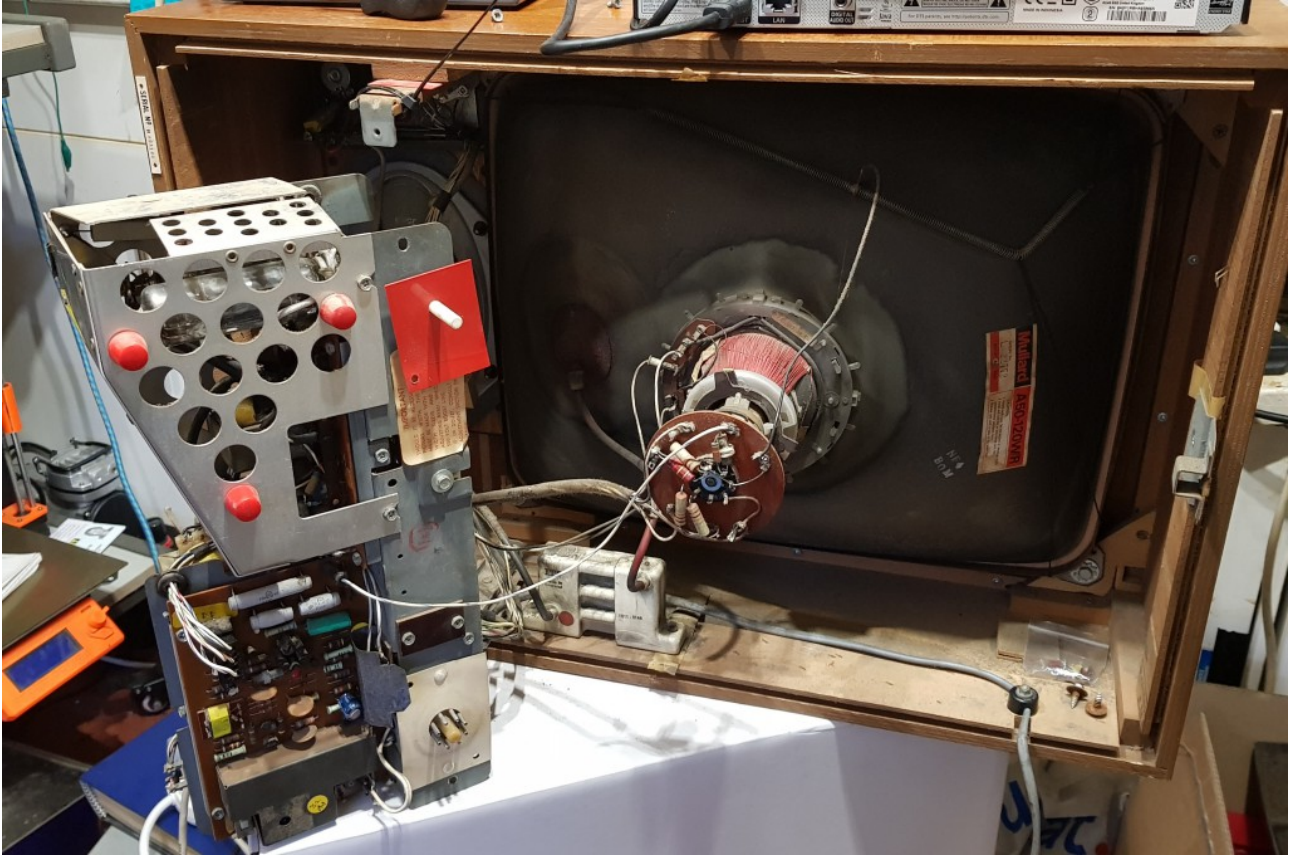
- a) dressed in lab coats and carrying a ladder, we re-deployed (nicked) one of the Rediffusion TVs from the main student bar one lunchtime. No-one batted an eyelid.
- b) we got drawings of the union building from the management office (after hours, of course), especially showing the old and new telephone systems. The old wiring was left in when the new system was installed.
- c) a couple of us broke into the building after midnight (useful those keys), got into the lift riser, found the Rediffusion distribution and the old phone cabling. We wired a feed into old unused cabling which went to the TC office about 80 yards away.
- d) wired in our nice new telly and it worked a treat ! (despite probably horrible impedance mismatch etc. using old phone cable.)

Therefore, I do have some 'history' with Rediffusion :)

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To work

Without any diagrams for the TV nor any solid information on what signal I should send it I had a look in the set.



Figured that bottom board next to the octal pin plug must receive the RF and separate out the luma (since it's wired direct to the tube). The bit in the can must be the front end. Bit more guessing and I reckoned it'd be safe to power it up with 9v on the bench.

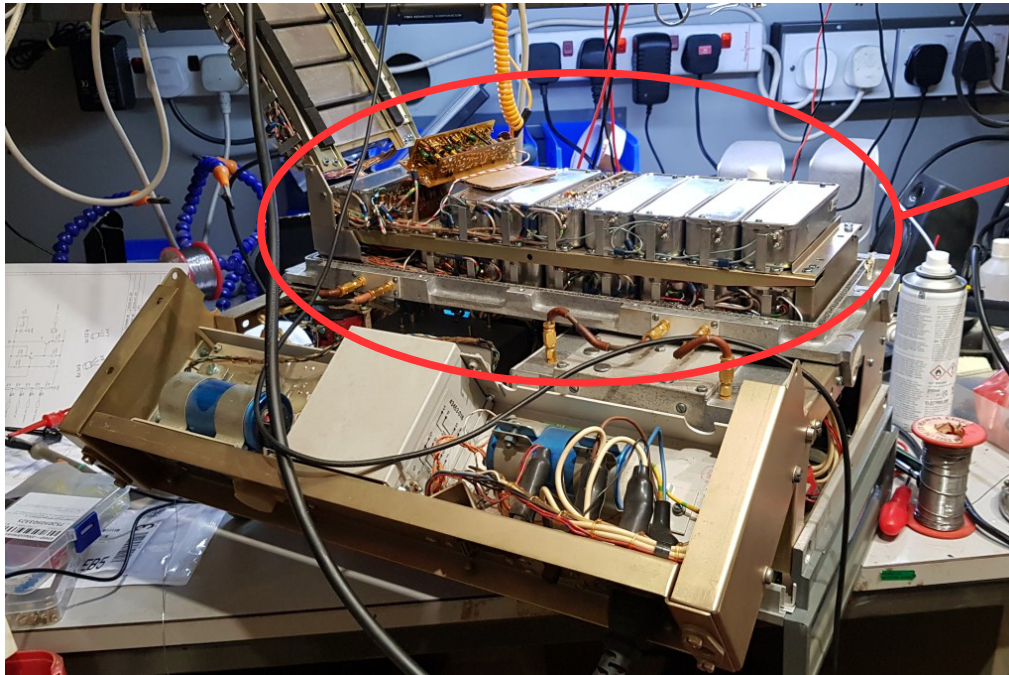
Fired up my trusty (?) Marconi TF2008 to feed in some RF...



I was probing about the board's front end and winding up the MHz when, all of a sudden, everything went dead.

The TF2008 had packed up. Damn.

The next few days were spent dismantling the sig.gen. and trying to fix it. I do have a .pdf of the manual for it, but it's still quite a beast to work on – most of the guts are in 30 shielding boxes, although the chassis does fold out nicely for servicing.



The fault is in here somewhere

Meanwhile, I found someone was selling an original paper manual (with the nice big fold-out diagrams) on eBay - lovely, I'll have that.

Sort of fixed the sig.gen. - couldn't find the main fault after several days tho; the whole thing is a big 'AGC' control loop which is tied in to the modulators and everything else. Breaking the loop would allow it to run but closing the loop let it run away and stop output.

Must've said "Aha!" a hundred times finding dodgy components, especially old tantalums, but it still wouldn't go. In the end I left it 'open-loop' and trimmed it for a reasonable CW output.

Back on the TV RF board, after replacing a dead transistor and some dodgy caps, I found it was tuned to around 6MHz (I say 'tuned', but it's very broadband – anything from 4 to 8MHz could be shoved in it).

Decided more Hz is more betterz and trimmed it for 8MHz.

At this time the TF2008 manual from eBay turned up.

I was sorely disappointed...

The manual had been guillotined along the spine, probably to document scan it, so I was left with loads of separate sheets – a right royal pain.

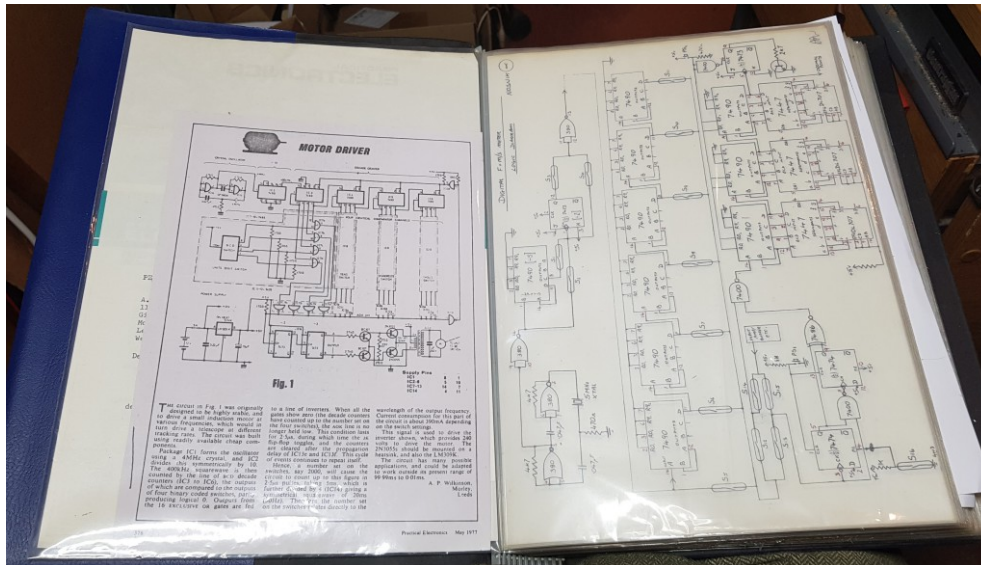
Back to googling; this time for a loose-leaf binder to put the manual in.

Bit of a break from hours of trying to find Rediffusion info I suppose.

Revelation

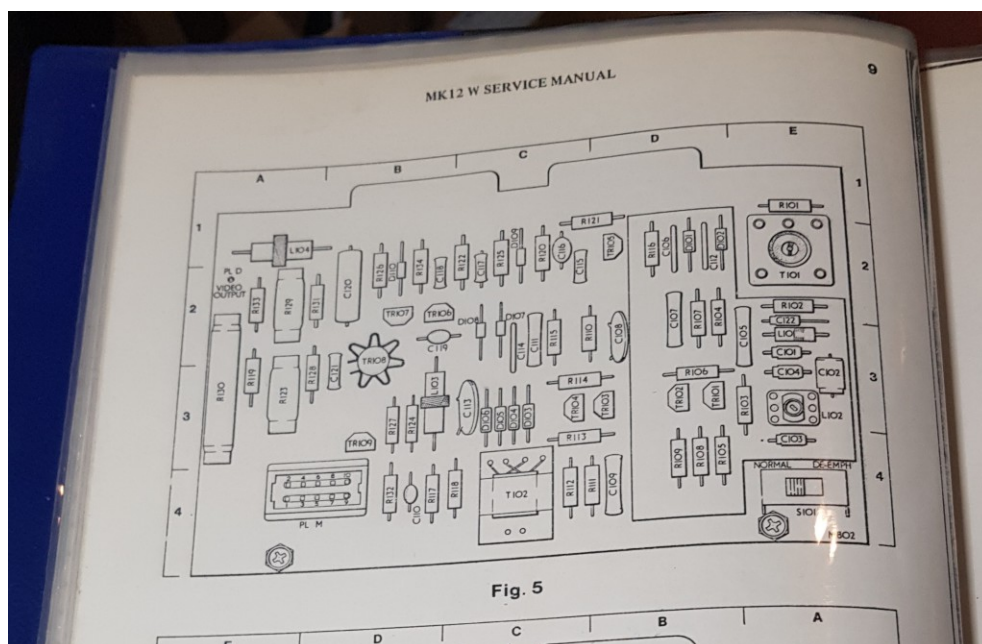
Sat with a coffee staring at the screen I suddenly remembered I already had a loose-leaf 'plastic pocket' book somewhere. Used to put circuit diagrams in it back in the days when you got a diagram with HiFi components and such. After some time, I found it.

A right nostalgia trip – the first entry was a copy of a letter and article I had printed in Practical Electronics in 1976 !



Coffee had long gone cold as I leafed thru stuff I hadn't seen for going on 20 years.

Then I saw this:



I just sat and stared, not believing my eyes. That was the board on the bench !

So:

1. Bloke in the pub called Tony hands me a Rediffusion TV
2. Can't find any info on the web.
3. Bought loads of TV manuals on a flash drive, not in there.
4. Tried to reverse-engineer the RF using my TF2008
5. TF2008 goes pop
6. Got a TF2008 manual off eBay
7. It's loose-leaf, so I look for a binder
8. Open the old binder I've not looked at in years
9. There's the *exact* manual for this television!

If that sequence of events hadn't happened – I would never have found it.

What's the chance eh ?

Furthermore, it was the only TV manual in there. Couldn't remember why.

Eventually I vaguely remembered (prompted a bit by a couple of annotations on the sheets):

Back in around 1977 I was involved in the University Union's student TV bunch and hung around the A/V centre sometimes. Since we had next to no gear, a couple of us made things, like a 'Studio monitor'.

I'd completely forgotten that I'd made a monitor from a Rediffusion set, isolating it with an isolation transformer and feeding 1V composite directly into the 'RF board' (there's a telling couple of wiggly lines on L103 where I must've interfaced into).

I probably borrowed the Rediffusion MK12 Service Manual from the engineers in the A/V centre and ran it thru the photocopier. Shame I didn't copy everything, but the copier in the union needed money per copy. The same sort of money I needed for food and beer.

Also a shame I can't remember more, but it was 48 years ago.

TonyWilk

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P.S. Fixing up the TV and getting it to run with new-fangled video sources is a separate tale.