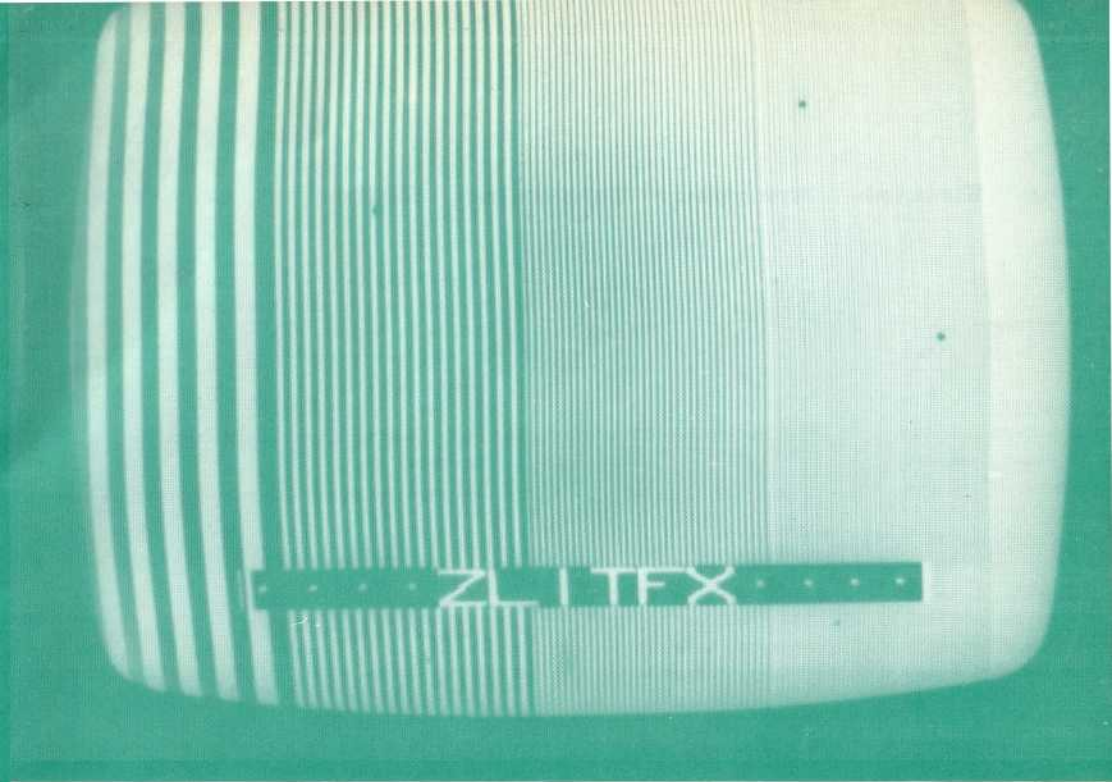


C Q — T V

THE JOURNAL OF THE BRITISH AMATEUR TELEVISION CLUB

No. 99

AUG 1977

The British Amateur Television Club.

C Q - T V is the quarterly journal of B.A.T.C.
Contributions for publication should be sent to the Editor, Andrew M. Hughes
17 Woodside Avenue
Esher, Surrey
KT10 8JQ.
Close for press dates are April 1st, July 1st, October 1st and December 24th.

CONTENTS

COVER PHOTO
ZL1TFX in New Zealand. See "Postbag".

SSTV CONVENTION

PLACE — UNIVERSITY OF ASTON, BIRMINGHAM

DATE — SATURDAY 19th NOVEMBER 1977

TIME — 1000 - 1730 hours.

It is hoped that many amateurs will bring pieces of equipment to exhibit and demonstrate. All known suppliers of commercial SSTV equipment have been invited to exhibit. Lectures are being organised for the afternoon.

Free car parking will be available at the University. Unfortunately ther will be no food on sale, but the University is only a short walk from the centre of Birmingham, where there are many good restaurants.

Non Club members will be welcome to attend. There will be a 50 p admission charge.

For further details, together with maps of the area, send a s.a.e. to :

Mike Crampton G8DLX
16 Percival Road
Rugby
Warwickshire CV22 5JS

Letters to the Editor

Dear Sir,

I would be most grateful if you could publicise the following information about the re-timing of BBC World Radio Club transmissions.

As from Wednesday, 7th September 1977 the transmissions of World Radio Club will be as follows;

Wednesday ; 0815 - 0830 GMT
Wednesday : 1330 - 1345 GMT
Wednesday : 2315 - 2330 GMT
Friday : 2100 - 2115 GMT

You will see from this that the Sunday transmission at 0815 GMT has been cancelled.

World Radio Club is broadcast on 1088kHz (276m) and the short waves used by the BBC World Service.

Secretary, World Radio Club
BBC, Bush House
London WC2B 4PH

Dear Sir,

I would be grateful if you could publish the following in the next issue of CQ-TV.

CQ All Scout Amateurs!

Scout Headquarters wish to compile a list of all radio amateurs connected with the Scout Movement and invite them to write to G2CKB/G3BHK, % The Activities Secretary, The Scout Association, Gilwell Park, Chingford, London, E4 7QW, detailing the following information:

a) name, address and callsign
b) any special fields of radio interest
c) if the organiser of a Scout Radio Club - the name of the Club, callsign and brief details of their activities.

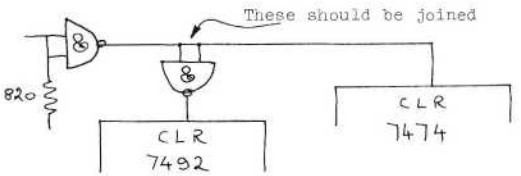
Following the compilation of this list it is hoped to coordinate various County radio activities and to circulate information of interest to the amateurs concerned.

Your help in this excercise would be greatly appreciated 73s Dx.

I am grateful for your assistance.
P.C.H.Ingram
Gilwell Park Training Centre.

Dear OM,

In CQ-TV No 97 an article by myself unfortunately has a printing error in the circuit diagram. I would be obliged if you could print a correction for this.



David Long G3PTU
Huddersfield.

Dear Andy,

I thank Mr A. Jaques G3PTD for his note in CQ-TV No 98 about the CQ-TV SPG not being able to work correctly on 405 lines, and also for his kind comment on my being the resident genius of the BATC.

Genius maybe (blush); resident no - I have been in Canada for over two years playing with 525 NTSC tv (Never Twice the Same Colour - ugh!)

Does this mean that 405 has been rediscovered? It seems that Mr Jaques may have found my deliberate mistake - or does it? My SPG works perfectly well on 405 as do a lot of others to my certain knowledge.

However to make sure I have reinvestigated the divide-by-nine arrangements with the 7490 - in fact with about twenty of the beasts and every one works perfectly in the way that I described in CQ-TV No74 page 21.

How can this be when theory seems to indicate that it cannot? As it happens, the 7490 is not as simple as it might appear. If reference is made to CQ-TV No 74 page 20 it will be seen that the 'C' section is clocked from the output of B but that the 'D' section is clocked along with the 'B' section. This means that the 'C' output waveform changes state just a bit later than the 'D' section does. Hence, when 'C' and 'D' are ANDed in the reset-nine gate there is an overlap of some 30 nanoseconds which is enough to cause the counter to reset to nine (1001). This amount of overlap is due to the delay through one bistable and is reliable as it is the principle of operation behind shift registers.

It seems therefore that the Jaques Modification is not necessary but if fitted would cause no problems.

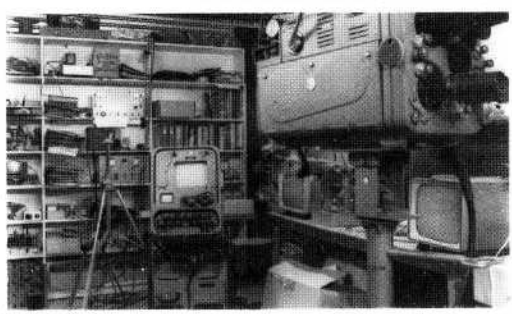
I wonder if Mr Jaques tried building the SPG before pondering whether it would work or not?

Finally, I can assure the readers of CQ-TV that every one of my circuits is checked and double checked before publication in CQ-TV.
Arthur W. Critchley
Markham, Ontario
Canada.

From the Postbag

P. W. Lee G8JGJ of190 Chaldon Way, Coulsdon in Surrey is interested in the reception side of slow scan and comments on the quality and signal strength being so good, especially on the Italian stations. He uses a Spacemark SSM 1 monitor, and would like assistance from any member who has fitted auto scan timebase circuits to this type.

R. A. Rowe ZL1TFX in Hamilton, New Zealand has sent us this photo of his shack (the garage!) and an off screen picture. He asks us to pass on his thanks to Arthur Critchley for the SPG and the push button memory, D. J. Long for the multiburst generator, John Lawrence for the grey scale generator, Martin Allard for the Character generator and all the other contributors to the journal. The Marconi Mk 3 camera, which is only one of two in New Zealand, is mounted on a home built tripod which uses an old drive shaft from a truck as the main centre stem. ZL1TFX is unfortunate in that there are no other 70 cm amateurs



close enough to work, but he has had good results across the town running 3 watts o/p, with a solid state linear.

D. J. Robinson GW4FRE in Bangor, Wales, tells us that slow scan no longer holds the appeal it used to, and he is changing over to fast scan; however he wishes to point out that at the last Convention at Aston, he saw a diode programmed SSTV message generator, with a caption saying "to be featured in CQ-TV". He thinks it was by G3LEE, and asks if we are to see it soon. Well, are we?

D. B. Pitt of the Low Definition TeleVision Association wrote recently about some successful work in his branch of the hobby. Anyone who thinks that live moving tv pictures taken by ordinary daylight are expensive he says is proved wrong by some of the LDTV equipment being made by amateurs today. When a Nipkov disc is all that is required for scanning, and a OC71 with the paint scraped off is the pick-up device, it is easy to see why it is all so cheap!

atv in Strathclyde

by Norrie Macdonald GM4BVU

The Mid-Lanark Amateur Radio Society held an "ATV Night" on March 18th when GM3SZP (ex GM6ANQ/T) brought along his complete television station to the Club. Rod began by explaining the fundamentals about /T operation and demonstrated cameras, receivers, pattern generation and so on. About thirty interested amateurs then watched as Rod tuned in pictures from GM3SAN, Sim, some five miles away in Baillieston. The picture quality was superb, with John, GM3YLD, as cameraman producing virtually noise-free shots of Sim showing us round the shack.

Later, Rod radiated shots of the assembled hoardes, and several amateurs in the area were able to pick out well-known faces among those present. Good quality pictures were also received at the Club from Jimmy, GM3KXM, and very noisy images from Chris, GM8BKE, some 16 miles away in Bearsden. The antenna in use was only temporarily installed, and attempts to receive video from Stan, GM3KXQ, on the other side of Glasgow, and Dave, GM8ARV, and Colin, GM3VBB, both in Edinburgh were not successful on this occasion. Chris was receiving video from the Edinburgh side, but the Club is in the shadow of rising ground in that direction.

It would appear that the Glasgow/Edinburgh area has a very high proportion of licensed radio amateurs who can transmit or at least receive amateur television, and judging by the sudden interest in ELC1043-05 tuners after the Club meeting, there will be many more before too long.

GM3SAN, GM3YLD and GM3KXM have also been transmitting video from time to time from high ground in the Campsies north of Glasgow. Good quality pictures have been received in the city and in Cumbernauld (GM4FPR) and Coatbridge (GM8JUY).

Perhaps these few lines will serve to show readers of CQ-TV that fast scan is thriving in this area, and that the investment in equipment to transmit atv should be worthwhile.

Personally, I now have a tuner, and an M8M48 aerial, and hope to be receiving pictures soon. By the way, the DJ4LB transmitter seems to have a virtual monopoly in the area, and little trouble has been experienced by any of the atv men who have built it.

Stoke on Trent atv

by G8BLZ

The Stoke-on-Trent Amateur Radio Soc. was invited to take part in the Bi-Centennial celebrations of the Trent & Mersey Canal by the North Staffs Boat Club.

This was a two day event, held on Saturday and Sunday the 4th and 5th of June. Using a large marquee in a field next to the canal, in

in the grounds of Wedgewoods of Barlaston.

It was decided by the members actively interested in atv to put on a demonstration of on air transmissions as well as closed circuit tv in addition to the other aspects of amateur radio. The Society covered HF, VHF and UHF operations, as well as demonstrating RTTY.

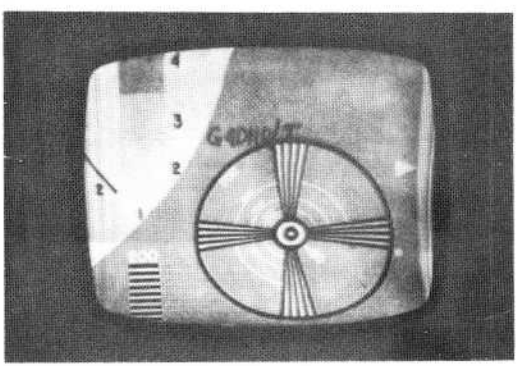
The receive side of the atv equipment was a 22" Sobell receiver, on 625, fed through the VHF tuner by a Microwave Modules atv Converter. The aerial was an 18 element J.B. Parabeam at 20 ft.

The transmit side consisted of a Shibsden 1" vidicon camera to a valve transmitter running 3 watts out to a 6 over 6 at approximately 35 ft in height.

The site for the exhibition was very poor for UHF, but fortunately the transmitter site was good, the path being about 7 miles.

Allan, G8BLZ and Jim, G8JTV at Barlaston.

Albert, G4DHO, has been sending atv transmissions to Allan G8BLZ, for some time, as the picture below shows; path length is about two miles, but the home QTH of G8BLZ is not very good for UHF as it is down in the centre of the city.



EQUIPMENT SALES

By Grant Dixon.

Our British members may not know of an American firm "ATV Research" who specialise in components for the tv amateur. Their prices are inclined to be fairly high from our point of view - a deflector coil assembly for a vidicon with solid state circuitry comes at $24.95 for an unassembled kit of parts. A complete camera Kit (including vidicon) is $185.00, and a f1.9 25 mm Cosmicar lens is $46.95. Nevertheless, there are one or two interesting items such as a focussing C mount which enables a fixed focus C mount lens to be focussed from infinity down to 5 inches; this costs $6.95. Another useful item at $3.50 is a set of camera test patterns 11" x 8½"; also a kit for automatic light compensation for a vidicon camera at $3.50.

ATV Research will pay all postage on orders over $10 and will send by surface mail. For air mail, ask for a quotation. Include $1.00 extra on orders under $10. Send any of your enquiries to:

ATV Research
13th & Broadway,
Dakota City,
Nebraska 68731
U.S.A.

LENSES

Some members have had trouble, when buying C mount lenses, with insdequate coverage of the vidicon target. In many cases this has been due to the use of a lens intended for a ⅔" vidicon on a 1" tube. To avoid these "dark corners" members are advised to check carefully before purchase that the lens they are buying is the correct one for their size of tube.

tv on the air by John Wood G3YQC

Since the new licence regulations came into force on the first of January allowing fast scan television operation by class A or B licence holders, there has been a steady flow of amateurs eager to make use of the new concessions, and consequently one is continually hearing of new tv stations, either in operation, or in some stage of construction; indeed in some parts of the country the upsurge of interest has even prompted a few of the more long standing tv'ers who have lain dormant in recent years to brush aside the cobwebs from the shack door and blow the dust off the '3-20s in the hope of new QSOs.

Also reflecting the present trend is the amount of material dealing with atv that has been appearing in the radio magazines. Recently two major articles on station equipment have been published in "Radio Communications", together with odd items in "Technical Topics" and other columns; there is also the promise of more tv articles to come.

Another reason for the many new stations radiating pictures is the relative simplicity of constructing a tv transmitter. The most popular method seems to be that which uses a conventional 28 MHz/432 MHz SSB transverter, and many people are building the DJ4LB vision IF board from "VHF Communications" magazine, but using an IF frequency of around 31.5 MHz. This puts the vision carrier on 435.5 MHz. The output power from the transverter is low, since one usually has to limit the drive level in order to minimise distortion of the signal through non-linearity. However, the few watts obtained are adequate for local and semi-local contacts; a linear amplifier can be added at a later date. The pictures from this system are in my experience quite superb.

NEWS IN BRIEF

A brand new tv station has been worked recently, it is G8MVG in Leicester. Bob has a rather unusual set up in that he uses the 43 MHz rf output from his vidicon camera to drive a solid state 70 cm transverter; the output is taken to a 2C39A linear amplifier which delivers 30 watts to the 12 element Yagi. The UHF output from a video cassette recorder is down converted to 43 MHz before feeding the transvereter. PAL colour is also available from the system, although to date this has not been received by anyone.

G8KAR from Kettering is reported to be building for tv, and hopes to be active soon.

On the 17th June G4AHH (Northants) received good pictures from PAØYG on 70 cm during a lift in conditions; unfortunately the vision transmitter was not in operation, so a two way couldn't be made.

PAØYG is the manager of the atv section in Holland, and operates from The Hague, together with PAØHLA and PAØCLB. These stations can usually be found on Fridays and Saturdays after about 11 pm (tv hours). It is hoped to give more details on the activity in Holland next time.

TV REPEATER NEWS

G4ENS has sent further details on the GB3TV television repeater project by the Bedfordshire amateur television Group. The following is quoted from their April 1977 progress report: "It is most obvious from correspondence and discussions at the open meeting that any Beacon or Repeater operation, either input or output in the 70 cm band is not wanted by the amateur television population in this area (Luton).

The main reason is interference with simplex atv operation, which is already more difficult with the introduction of FM repeaters; (there is now only one tv channel on 70 cm) and also interference from and to Oscar users. The next Oscar will have high power operation on 435 MHz.

Phases one and two are to be deleted and construction shall proceed direct to Phase three, and that is 23 cm input and output.

To produce a reasonable coverage area on 23 cm a higher power transmitter will be required (150 watts dc input). To obtain video AM modulation will be very expensive and difficult, on the other hand, to produce video FM modulation is very easy. The final amplifier can then operate in Class C.

The signal to noise ratio with FM is better than AM and will therefore increase the possible range further."

Although FM demodulation is not part of a domestic receiver's function, a suitable demodulator is not difficult to build, and would require only minimal modification to existing tv receivers. Such demodulators are at present being used to receive the Indian ATS-6 sattelite transmissions in the UK, and design information is freely available.

That's it for this time; please send correspondence, as usual, to:

TV On the Air
54 Elkington Road
Yelvertoft
Northampton
NN6 7LU

SAFETY AND HEALTH

The following notes are from a document published last year by the English Electric Valve Company entitled "Electronic Devices - Health and Safety Hazards". These extracts are printed in the hope that they may be of interest, and use, to amateurs.

HIGH VOLTAGE

Equipment must be designed so that personnel cannot come into contact with high voltage circuits. All high voltage circuits and terminals must be enclosed and fail-safe interlock switches must be fitted to disconnect the primary power supply and discharge all high voltage capacitors and stored charges in the electronic devices before allowing access. Interlock switches must not be bypassed to allow operation with access doors open.

R.F.RADIATION

Exposure to rf fields can be a hazard even at relatively low frequencies. Absorbtion of rf energy by the human body is dependent on frequency and although at frequencies below 30 MHz most energy passes straight through the body with little heating effect it still presents a hazard.
All rf connectors and cavities must be correctly fitted before operation so that no leakage of rf energy can occur and the rf output must be coupled efficiently to the load. It is particularly dangerous to look into open waveguide or coaxial feeders, or transmitter antennae while the device is energised. Power klystrons must not be operated without a suitable load at the intermediate and output cavities. Screening of the cathode side arm of high power magnetrons may be necessary.

X-RAY RADIATION

All high voltage devices operating at voltages above 10 kV produce progressively more dangerous X-rays as the voltage is increased. The device envelope usually provides only limited protection and further shielding may be required. It should be noted that the X-rays emitted by magnetrons and power klystrons correspond to a voltage approximately twice the applied beam voltage.

IMPLOSION

All high vacuum tubes store potetial energy by virtue of their vacuum. The energy level is low in small tubes but represents a significant hazard in larger tubes such as cathode ray tubes, storage, image isocon and image orthicon tubes particularly if the tube is dropped or subjected to violent

impact.
Such tubes must be stored and transported in their approved packs. During installation or replacement the tube must not be scratchedor damaged in any way likely to reduce the strength of the glass envelope. No stresses must be imposed on the glass envelope, particularly the neck, and the tube must be adequately supported. Free standing cathode ray tubes must be placed face-plate down on a soft surface free from abrasive particles. The user must be protected against implosion of the tube in the equipment.

EXPLOSION

Some devices such as spark gaps are pressurised and the precautions specified in the clause on Implosion must be observed.

DISPOSAL

Instructions are available from EEV on disposal at the end of useful working life of any device where hazards of beryllium oxide ceramic, mercury or implosion exist. To avoid potential hazards any device should be returned to the original supplier in the approved pack for disposal.

MERCURY

All ignitrons and some rectifiers and thyratrons have a mercury content. This is a hazardous substance, especially in the vapour phase. Should breakage occur, ALL droplets must be brushed up as soon as possible and placed in an airtight container for disposal. Direct contact with the skin must be avoided. Afterwards the hands must be thoroughly washed.

THE PYE LYNX MODIFIED.

SOME AMATEUR MODIFICATIONS TO THIS WELL KNOWN INDUSTRIAL VIDICON CAMERA TO EXTEND ITS USE.

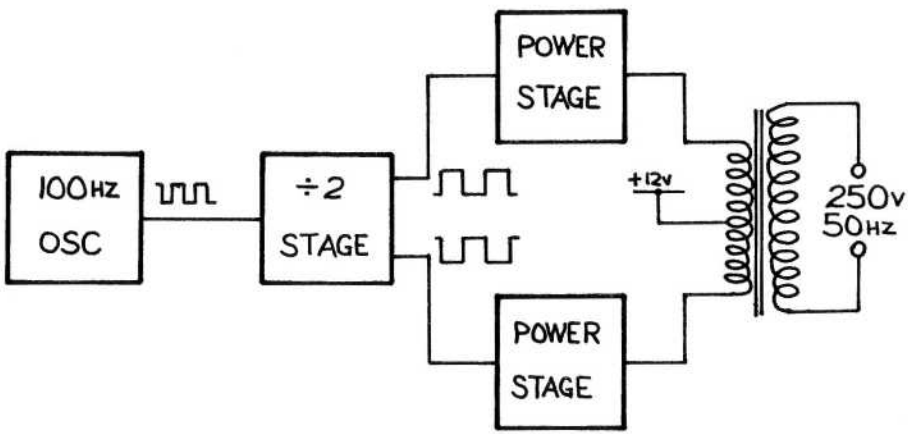
BATTERY USE OF THE PYE LYNX by Chris Towns GM8BKE

The accompanying circuit allows the use of a mains type camera such as a Pye Lynx from a 12 volt accumulator for /P operation. The invertor produces 250 volts ac at 50 Hz to allow the timebases in the camera to operate correctly.

Current consumption is approximately 1.5 amps with a 13 watt load. TR 5 and TR 7 should be mounted on a three inch square heatsink for reliable service.

T 1 is a Repanco TT15 transformer which gives the best results. Various other mains transformers have been tried however, with moderate success, examples being 6.3 - 0 - 6.3 and 12 - 0 - 12 volts at 2 amps.

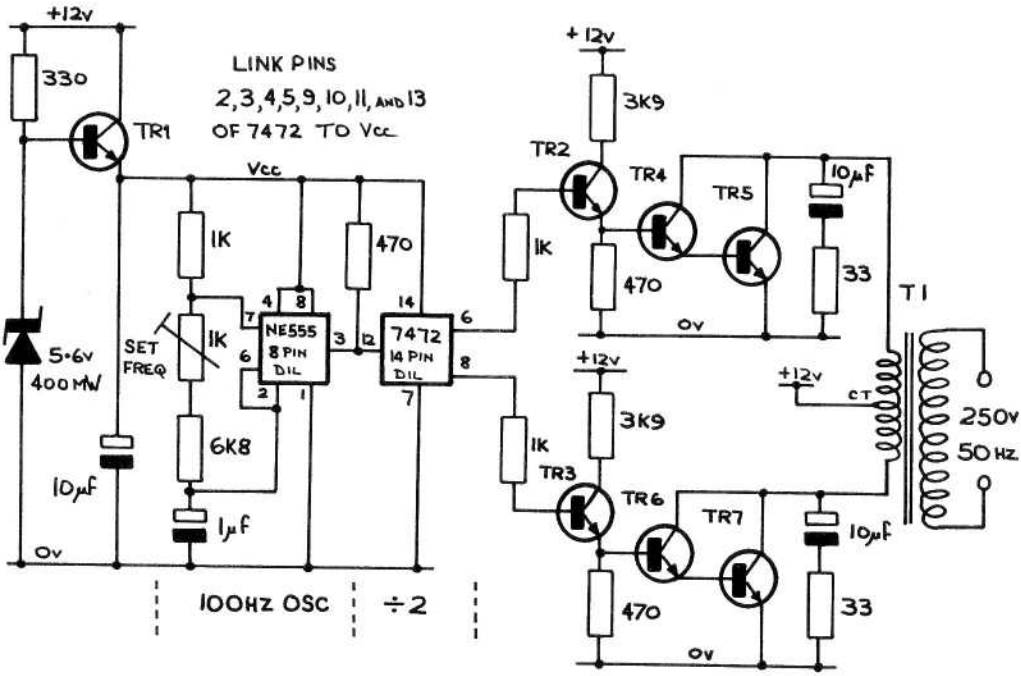
BLOCK DIAGRAM



PARTS LIST

TR 2, TR 3	BC107, BC172 etc
TR 1, TR 4, TR 6	2N3053, BFY50, 2N696 etc
TR 5, TR 7	2N3054, TIP29 etc
T 1	see text
IC 1	NE555
IC 2	7472
Heatsink	18 swg aluminium, 3 " x 3 ".

NB. The following pins of the 7472 should be connected to Vcc; 2,3,4,5,9,10,11 and 13.



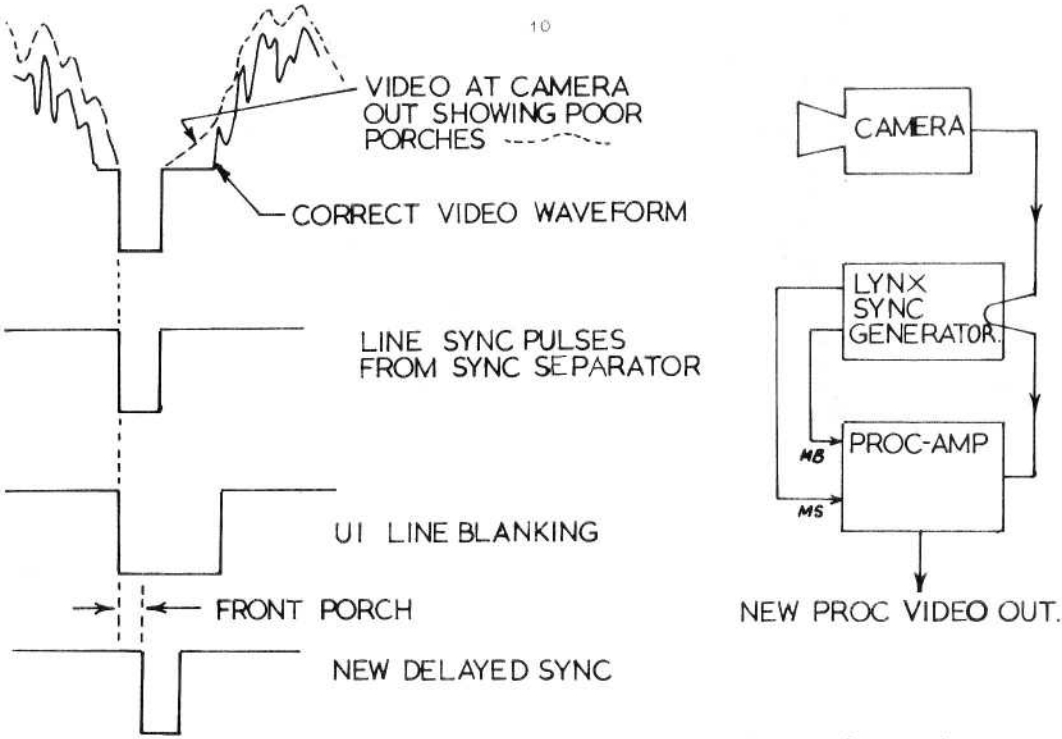
GENERATING SYNCS AND BLANKING FROM A LYNX CAMERA

By Trevor Brown G8CJS Ex G6AGM/T

The following circuit was designed so as to generate mixed sync and mixed blanking from a video source which in this case was a Pye Lynx Camera so as to reprocess the output video and generate clean sync pulses and porches together with frame blanking so as to stop line pulling when peak white picture is present at the edges of frame. It is also useful to have a feed of sync and blanking that is locked to camera for running pattern generators in the station and permits wiping and mixing between the camera and any of these generators.

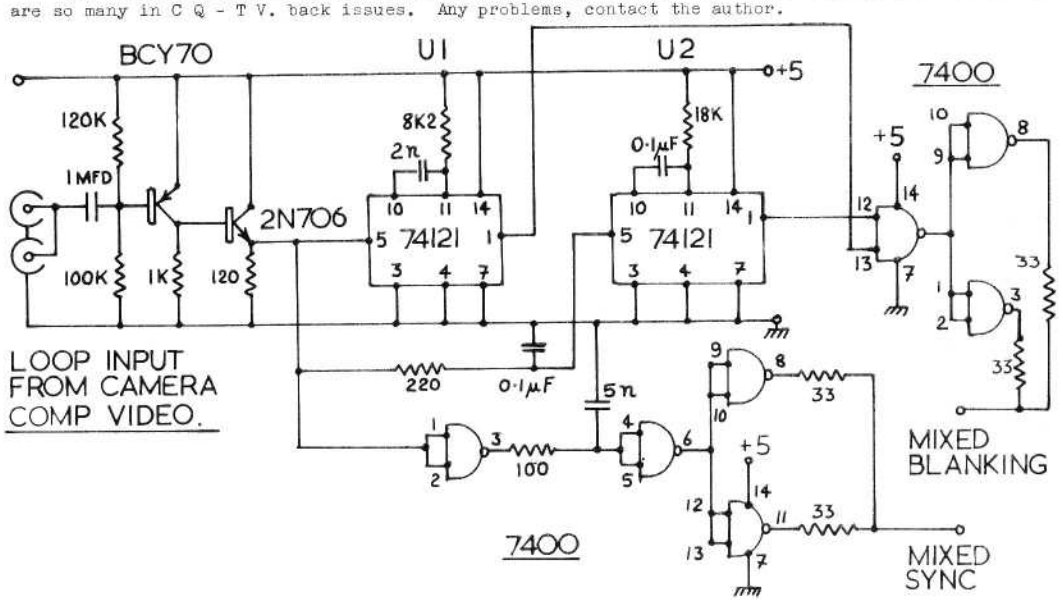
The sync is stripped off the composite video by the two transistors and fed to U1 which generates line blanking. The sync is also fed via a gate to R1 C1 where it is delayed so as to generate a front porch when it is recombined with the video in the proc. amp. The sync then passes through another gate which sharpens up the edges after the delay, and after two more gates is fed out at 2 volts across a 75 ohm term. (standard UK level).

U2 generates the frame blanking which provides blank lines at the start of line scan which is necessary for the line oscillator in the monitor to get back in step with the sync pulses. This is particularly important in circuits with crude frame sync like the Pye Lynx.



This circuit will work with either simple frame sync i.e. no broad or equalising pulses or full C.C.I.R Standard. It does not generate line blanking prior to frame flyback but nothing seems to suffer.

The unit was designed to run with a Processing Amplifier. The diagram is not shown as there are so many in C Q - T V. back issues. Any problems, contact the author.



A SIMPLE LEVEL INDICATOR

by Johnny Brown G3LPB

This is the outcome of necessity more than any other excuse. Slow scan information can be exchanged on tapes, as can video, audio etc. This unit was brought about by the necessity to tape patterns, video from camera and scan convertor, character generator, and finally audio to explain the set up. The worst offender is the source with the highest output level, so when used on another machine to play back into a monitor we can get very funny results, sometimes with the necessity to play with the gain control.

The unit to be described is one answer to the problem. It is easily built with obtainable components, simple in operation and caters for most things.

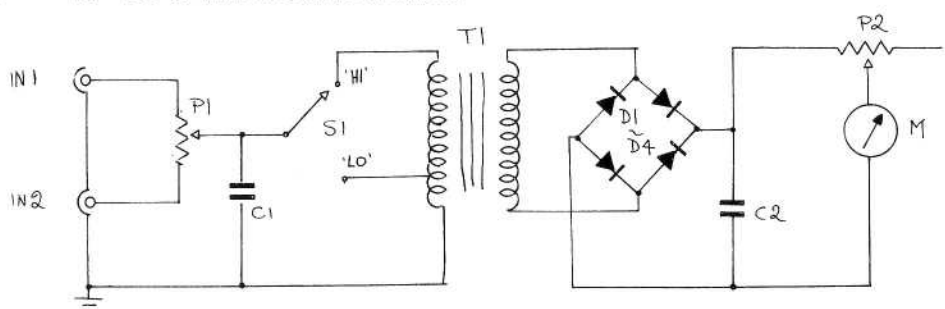
It is almost self explanatory by referring to the circuit; the diodes used were OA91, four in a bridge. The transformer was one from a scrapped miniature radio, the output one in fact. The Pot 1 controls the mixing system if needed, here we can mix any two inputs or fade one or other out etc. The meter was a scrap one from an old recorder. In fact the meters have been advertised for 60p in various mgazines. It is about 100 to 200 uA movement. The value really is immaterial, the 100 uA is just more sensitive. Pot 2 allows us to calibrate to a given voltage if needs be. If this is not needed, connect the meter right across the bridge. The 1000 pf removes any rf that floats about, as does the 100 pf in the first stage.

USE

All we need to do is to do a recording and watch the input level proportional to the meter reading. Set Pot 2 for a full scale reading, say of 1 volt, and this will give a good indication of the levels required for any input. The input sources have gain controls that can be set not to allow excess input, in fact the MIX control can even cover any spread in the level. This figure must never be exceeded. Surprisingly, not a lot of level is needed as most can be obtained by the amp. during playback.The meter can even be used as an "S" Meter, feeding the output of the Rx to the unit and watching the peaks of audio on the meter. We have two inputs, one is designated LO covering say 3 - 100 ohm input, and the other HI from 100 - 1000 ohms. So almost anything can be fed to the unit. Once set, the levels may never be touched during a recording session as each input has been pre set.

PARTS LIST (see text)

S1	single pole two way
P1	1 k carbon pot
P2	set up pot
D1-4	oa91
C1	100 pf silver mica
C2	1000 pf disc ceramic (rf remover)
M	100 - 250 uA miniature meter movement.



CONTEST NEWS

SILVER JUBILEE FAST SCAN CONTEST

IN COMMEMORATION OF THE QUEEN'S SILVER JUBILEE YEAR

DATES: SATURDAY 8th OCTOBER 1977
SUNDAY 9th OCTOBER 1977

The rules for this Contest, which is a UK Contest only, will be as previously published in C Q - T V
NB These dates are final, no change can be contemplated!

ACTIVITY WEEK

The response to the last Activity Week was very disappointing: are you all really interested in activity, or just pretending?
The next Activity Week will be January 7th to January 13th 1978 - the whole week, starting Saturday.
Same rules as before, send your logs to

G8EIM
BATC Contest Organiser
38 Kynaston Wood
Harrow Weald
Harrow, Middlesex.

ALBATROSS SSTV CONTEST

Please note that the dates for this Contest are the 10th & 11th of September 1977, and not as published previously. We regret this error, which was due to incorrect notices being sent out by the organisers.
The photo below is the first prize, being donated by A.E.C. of Bologna, Italy.

ERRATA

Those who have bought "A Guide to Amateur Television" may like to know of the following mistakes which managed to creep into the finished product. I don't know how they got there - more hours were spent proof reading the thing than the people involved care to think! If you, as a reader, happen to spot a few more, please let the Editor know - he's working on the reprint now, as almost all the first lot have been sold (send your money now if you want one before Christmas!

page 6		aerial is fed via 15 pf to the emitter
page 46		unmarked resistor at TR8 collector is 3K3
page 47		C1 is 10 n
page 48		RV9 is 50 k; RV10 is 100 k.
page 51		TR17 is MJE521.
page 57	line 7	... PAL, NTSC or SECAM.
page 58	line 27	change "negative" to "positive"
	fig 4	add "R1" to 100 k AOT resistor.
page 64		add to references "Radio Communications Apr 1977 p 282"
page 67	line 14	... is <u>not</u> sufficient...
page 79	fig 8	shift control is 10 k.
page 81	fig 10	pin 4 of ICs 1,2,3,4,6,7 & 8 goes to -6v pin 6 of IC 5 goes to -6v
page 85	fig 19	pin 11 of 1st 7490 in top row should go to pin 14 of the second 7490
page 86	fig 20	the 2uF and 6.8uF are electrolytics with +ve to pin 10 the 4 o/ps of the 7493 feeding the 7420 are 8,9,11,12. Pin 10 goes to earth.
page 87	fig 21	the IC is a 566, not 766; the o/p pin of the last 741 is 6, 7 goes to +12v

BATC AT ALLY PALLY

The Club had a stand at the recent R.S.G.B. rally at the Alexandra Palace in north London.

Tom Mitchell and Dave Wilson organised the display, but many, many members assisted, and to them all go our grateful thanks.

Tom is seen in the photo on the left signing on a new member, one of several who joined during the exhibition. The photo below is a general view of the stand.

ADVERTS

ADVERTISING RATES

Back page	£12
Inside page	£10
Half page	£ 6

Small ads 10 p per line; free to members of BATC.

Advertisements are inserted in C Q - T V on the understanding that advertisers comply with the law and accept responsibility for their wording. They must also undertake to reply to all those who enclose a stamped addressed envelope.

B.A.T.C. Equipment Registry exists to help members of the Club who have equipment for disposal or who wish to purchase some specific item. Send a list of your "wants" and "disposals" to the address inside the front cover of this issue and during the six months for which your application is valid, the Registry will attempt to put you in touch with someone who will buy your surplus or sell you your needs. A s.a.e. would be appreciated when using this service.

B.A.T.C. possesses a Marconi Sideband Analyser which was donated to the Club some years ago. If anyone wishes to use this equipment, could they contact Ian Waters at 39 Stow Road, Stow-cum-quy Cambridge. They will need to provide their own transport.

FOR SALE

SSTV monitor crt 5FP7A equivalent, unused, with base and deflection assembly £7
Set of 6 completed, unused pcbs by MK Products for SSTV monitor. All components on boards, with data but no edge connectors £10
Post and packing extra.
Write GW4FRE (ex G8JMO) via G8JMO QTHR

FREE to first caller!
405 line interlaced transistorised SPG
A.Jaques G3PTD
47 Newstead Road
Urmston
Manchester.

FOR SALE

3 x 30mm Plumbicon tubes £7 each
3 x 30mm Plumbicon scanning yokes £7 each
24" monochrome television tube in cabinet, almost new. £3
Ian Daniels G8CQE
Tel 01 656 5285

FOR SALE

Monoscope tube Monicon type C913C. C pattern. Believed OK, neverused since bought S/H from a member £4
CRT type 5FP7, OK, £2
2 x 931 or CV337 photomultipliers, believed to be OK, £1.50 each.
Nuvistor 6CW4 condition unknown, free to anyone who will pay postage.
CRT and scan coils from old projection tv, working when dismantled £2
Home built tv camera with good vidicon, BATC coils Dalmeyer tv lens, built to circuit in CQ-TV 65. Complete with mains tr., fault in video amp cct £10
Purchasers must collect or pay carriage; could deliver near Bournemouth.
P Worrell
21 Milford Drive
Bear Cross
Bournemouth BH11 9HL

FOR SALE

1" vidicon coils, new £6
12" tube 310DGB4, fair £2
12" tube CME1201 and scan coils £2.50
1" vidicon tube & base £1.50
All prices post or carriage extra. Wanted, manual or circuit for Epsylon 17" PM17T monitor. Buy or borrow.
M. Cox G8HUA
13 Dane Close
Broughton
Brigg
South Humberside.

FOR SALE

Nombrex Type 27 Signal Generator (150 kHz - 340 MHz) £5 carriage extra.
A.Hughes
17 Woodside Ave
Esher, Surrey KT10 8JQ

FOR SALE

Marconi Mk 3 studio tv camera, comprising camera, CCU, PSU, picture & waveform monitor, 4 lenses, SPG, viewfinder, IO tube, cables & circuits: in working order £75
Peto-Scott 14" monitor, working order, "new cond-

ition" inside £15
Vidicon camera & lenses and Pye 23" VTR monitor, (teak case) working order £70
4½" I.O.yoke £4
Pan & tilt head with wedge plate, for cameras of about 80 lbs in weight £12
3" IO camera & CCU, transistorised, industrial, & image isocon tube & cable; no details £25
B. Summers
13 Church Street
Gainsborough Tel: Gainsborough 3940
Lincs

WANTED
Electronics part of D900T chart recorder. Also info on D658D Pix Tx
C. Heathcote
56 Sandringham Road
Ashwood Park
Wordsley Tel 038 44 2337
Stourbridge
West Midlands DY8 5HL

WANTED
Fast to slow scan convertor (built/kit or cct diagrams, NOT DJ6HP)
Slow scan camera max price £75
Plumbicon tube type 55875 max price £15
H. Winwood
87 Alderson Road North
Sheffield
S2 4UF

WANTED
Slow scan monitor - either commercial or home brew, or even half built.
M.S.West G4EJM
294 Ash Bank Road
Werrington
Stoke on Trent.

FOR SALE
Vidicon tube type 8541 £11
Vidicon tube type Z7919 £11
Both tubes (made by General Electric of America) are new apart from being used for demonstration work for about an hour. Post & packing extra.
B. LeGrys G3GOT
Terling Post Office
Terling
Chelmsford
CM3 2PG Tel 229

100 issues!

C Q - T V reaches its CENTURY.

In November, 1977, this journal will have appeared one hundred times since the inauguration of the British Amateur Television Club. For this momentous event, a bumper issue is planned, the biggest and best to date!
If you have any reminicencies about the early days of amateur television, the Editor would be very grateful to hear from you; photographs would be especially appreciated.
Those of you who follow Arthur Critchley will be pleased to hear that he will be returning from 100 onwards with a new series, to be entitled CMOS. A short title for a long subject!
It is hoped to have ready for publication a "Project 100" which will set new standards in amateur tv designs.
The Jubilee Contest is especially intended to celebrate the 100th issue.
If you have any ideas on how to celebrate the 100th, please write to the Editor - the address is on the inside front cover - as soon as possible.

FOR SALE
Plumbicon scan coils and Plumbicon tube, How about £12 ?
Circuits and info. included.
Prefer buyer collects because of risk of damage.
A. Jaques
47 Newstead Road
Urmston
Manchester.

CLUB SALES

			PRICE	POST & PACKING
Camera tubes	EEV Leddicon		£82	nil
	1" 9777 E.M.I. Ebitron		£28.00	nil
	⅔" 9831 E.M.I.	Amateur grade	£11.00	nil
	1" P849 English Electric	Amateur grade	£12.00	nil
	1" 9677 E.M.I.	Amateur grade	£11.00	nil
	1" 9728 E.M.I.	Amateur grade	£11.00	nil
	4½" 9565 E.M.I. Image Orthicon		£10 for two, buyer collects	
Coils	1" B.A.T.C. coils (limited no of ex-industrial @ £6 + 54p)		£11.50	54p
	⅔" E.M.I. coils		£11.50	54p
Paxolin sockets for 1" or ⅔" vidicons			.32	8p
C mount for lens			.50	10p
Lapel badges			.40	8p
Adhesive badges			.15	8p
B.A.T.C. headed note paper and envelopes (50 sheets)			£1.75	
Reporting charts			.6	8p
EEV Camera chart			£1.65	30p
B.A.T.C. Test Card			.50	10p
Film strips of past C Q - T Vs (10 issues per strip)			£1.20	10p
Windscreen stickers			.6	8p
C Q - T V SPG printed circuit board ready drilled			£3.00	10p
C Q - T V SPG Genlock Unit printed circuit board ready drilled			£3.00	10p

Rapidly increasing postal charges have compelled us to quote the above post and packing charges. Will overseas members please ask for a quotation before sending cash. Obviously, for small items such as lapel badges, adhesive emblems, windscreen stickers e.t.c., one can send several items for the same price as one - please try and estimate the right amount. Our thanks go to those members who estimate on the high side and suggest that any balance can be put to Club funds.

Please send your orders to C.G.Dixon (B.A.T.C. Club Sales)

Kyrles Cross
Peterstow
Ross on Wye
Herefordshire.

PUBLICATIONS

This is a separate department of the Club, do not send orders for publications to Club Sales, send orders to B.A.T.C. Publications
64 Showell Lane
Penn, Wolverhampton
West Midlands.

Slow Scan Television by B.J.Arnold G3RHI published by B.A.T.C. 2nd edition 35p + 8p p&p

A Guide to Amateur Television published by B.A.T.C. price (post paid) £1.25 to members and £1.75 to non members. Overseas postage rates on request.

Slow Scan Television Handbook sold out

C Q - T V back issues. Back issues are available for issue No 62 to the current issue, with the exception of No.s 71 and 72 which are sold out. There are less than 10 copies of No.s 62, 63, 64, 65, 66, 81 and 85 left so first come first served. Return postage allowance would be appreciated. Back issues cost 50p each for No.s 93 onwards and 25p each prior to No 93. A list of all the main articles which have appeared in C Q - T V giving details of how many sheets are required to reproduce it is available for 20p (in UK postage stamps please) plus a large (9"x4") stamped self addressed envelope. Any article which has appeared in the journal can be supplied in photo copy form at 5p per sheet. Payment should be in UK postage stamps.

PLEASE NOTE THIS LIST CANCELS ALL OTHERS.

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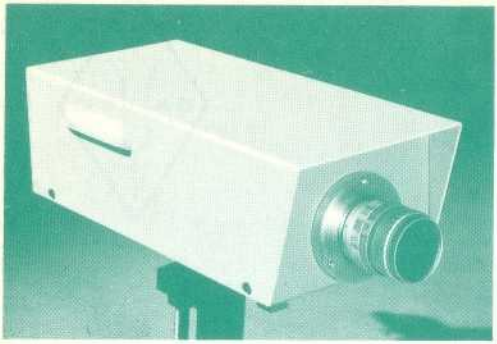

The Crofton C.C.T.V. Camera

The high performance of the Crofton C.C.T.V. Camera constructed from our comprehensive kit still surprises most constructors and users.

If you have an application for a camera, come along and see it in action; we think you will like it, and what's more it's ALL BRITISH, apart from the lens, and it will work with any existing equipment you have, including Video recorders. With one of our U.H.F. Modulators it can be plugged directly into the back of a standard U.H.F. television receiver.

CROFTON ELECTRONICS LTD

35 Grosvenor Road, Twickenham, Middlesex. Telephone: 01-891 1923

WE ARE ABLE TO OFFER:–
UHF Modulator, Simple 2 Camera Mixer, Electronic Ignition, Vidicons from £5.00. ETI Printed Circuits, Major Parts for ETI Projects.

S.A.E. 4" x 9" for lists.

BARCLAYCARD & ACCESS

New & S/H T.V. Lenses

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A Wide Range of New and Secondhand T.V. Equipment Mono & Colour,

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Non-renovated Cameras, Monitors & Video Tape Recorders from £40, £20 & £70 respectively.

The Crofton PCB Service

The Crofton P.C.B. service has been set up to offer a service to both the small and medium sized electronics company.

Being fully aware of the pressures on most engineers today, we have set up a specialist operation capable of producing P.C.B. designs and boards from the most scanty information.

You give us the circuit and we will do the rest. Whether you want high quality or low price commercial boards we can offer you a competitive service. Prototypes can normally be provided within 2–3 days from receipt of artwork.

So next time you're in the market for this type of service just give us a ring.