

Published for the British Amateur Television Club at Cheyne Cottage, Dukewood Drive, Gerrards Cross, Bucks.  
Copyright reserved

### Editor's Page

Dear OMs,

The biggest event of the month was undoubtedly the Convention, and it was very good to see so many of you there; especial thanks are due to those who came long distances, or brought equipment, and, as was remarked, "the keenness was a tonic". It is to be hoped that everyone has been re-injected with enthusiasm, and that by the time the next edition comes out, we shall have had the first TV QSO in this country.

Thanks are also due to the large number of you who appealed for a continuation of CQ-TV at all costs, in view of the absolute lack of other technical information in commercial magazines. Whilst this response has been most gratifying, it is not felt to be possible to keep on indefinitely, so negotiations are in progress to ensure that our technical stuff does appear in one of the magazines that many of you already read, and one that is read by many other transmitting hams, from whom must come any further support. Our regular reports will, of course, continue to appear in all their customary places.

At the Convention, the TV licence received a thorough going-over, and further correspondence with the GPO is in hand, particularly on the subject of cost. It seems a pity to penalise those of us who do not forever want to be tied down to a closed circuit in this way. It is highly probable that the GPO will reduce, if not abolish, the royalty required at the moment.

Apologies are due to those who expected this edition to be ready by June, but unfortunately the Convention and other jobs prevented this. A suggestion that the technical articles in back numbers of CQ-TV should be reprinted was received with some enthusiasm, and this will be done whenever we run out of stuff for the current month. It must be pointed out, however, that as we progress, many of these circuits and techniques become obsolete; modifications to circuits will continue to be printed in the mag whenever you let me know them.

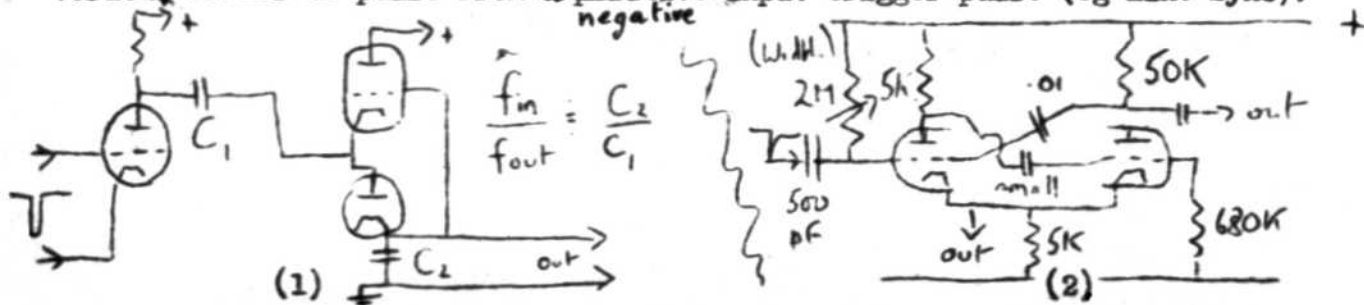
That is about all for this month; may I remind you that due to the high postal charges, I cannot reply to your letters as freely as I should like. Please keep on writing in with your comments and ideas - remember, if you don't send them in, someone else may have an awful job redoing your experiments.

73s,

M.B

### USEFUL CIRCUITS DE PT:

The Hallmark frequency divider will divide by as much as 200 in one stage by suitable adjustment of the Rs and Cs. The one-shot multivib is useful for obtaining various widths of pulse from a ~~positive~~ negative input trigger pulse (eg Line Sync).



"WHAT? NO WATTS?" contd from page Five

the P.D between the case of the unit (+600V) and the reflector (-150V). The klystron will draw about 3 mA or so, peaking to 5 or 6 mA as the reflector voltage is adjusted. This peak will increase if a dipole is coupled to the cavity via  $\lambda/2$  of feeder, and a simple crystal pickup using a CV102 will show some RF present. It only remains to bolt the unit to the antenna, consisting of about 2' x 3' of perforated zinc bent into a 60 degree "corner". The receiver local oscillator is identical; the mixer cavity is of 1" diam, with a screw plug to tune over about 3 cms to 8 cms in length.

Power supplies should be stabilised....CV71s are the job; the reflector does not draw any current. An SCR522 mod transformer (6d) in a voltage doubler circuit is quite handy. And finally, there are two sorts of CV67s on the market. One has a glass rod support for the reflector, and the other appears to have almost an electron gun as a reflector. The latter seem to be a bit better. Modulate in the reflector lead via a cathode follower. About 10V drive will do.

References: "Klystron Tubes" Harrison (McGraw-Hill); "CQ-TV" Dec 1950.

### ODDMENTS CORNER

A very good book on all aspects of TV TXN is "Practical TV Engineering", by Scott Helt, Murray Hill Books. Expensive, I'm afraid. Try your library; its worth it. G3ETI still requires 35mm film projector spools; offers to convert any Phillips Mullard (NOT EMI) infra red image converters to Farnsworth type image dissectors. George Short reminds you that the 5527 has the same base as a 3BP1 - and that it is advisable to plug a 3BP1 in there first; if you get a raster it is safe to try the iconoscope. There does not appear to be any new restrictions on the import of 5527s to date.

Base connections of ACR8: 1 A1 2 X2 3 G1 4 H, C 5 H 6 A1 7 A2

TCs Y1 Y2 A3

Base connections of ACR2X: 1 C 2 G1 3 H 4 H 5 A2 6 A1

TCs X1 X2, Y1, Y2, A3.

Both are 4V 1.1A; then ACR8 is Val 300V Va2 670V Va3 3kV Vg -60, X 0.2mm/V, Y 0.1 mm/V ACR2X Val 3kV Va2 720V Va3 3kV Vg -25V, X 0.15 mm/V Y 0.17 mm/V P4 phosphor.

We have gratefully received The Short Wave Listener, Electron, DL-QTC, QRM, Radio Amateurs Digest, Radio & Electronics, and the Amateur Cine World. Also the Mohawk Journal, Broadcast News, and the Proc TV Soc Eng Group.

CLUB EXTRAS FOR S.A. LE whilst supplies last:

Club notepaper.....20 sheets for 2/6, incl post.

TV QSLs with space for your call 2/- per doz incl post.

Membership certificates (for BoT use also)....3d ea, incl post.

Lapel badges.....3/6 ea incl post.

We are now sold out of test patterns; it is hoped to have some panel transfers done in the near future.

Grant Dixon reports Radio Services, St Elizabeth's, Lower Bullingham, Hereford have 931As at 15/-, and a few minus spigot @ 5/-.

Dave Hudspeth is well equipped to answer valve data queries.

Your editor will be away at the end of August for three weeks. Next edition in Sept.

We were very pleased to see Mr Ivall, of Wireless World, at the Convention.

Apologies for the way this typewriter jumps at the left of the page.

Will anyone who would buy a TV camera tube in the E15 range, if they were available, please let me know. (This is purely to give manufacturers some idea).

Has anyone tried a travelling wave tube on the TV bands? Sound very nice.

Photographs of your gear are always useful, either on loan or gift. Sent in to one of the mags, they can earn you cash, too. What about it, oms?

J'TA, R SG/TB

73s M.D

STOP PRESS PAGE 2A

Owing to some misunderstanding with the printer, it is regretted that we are not repeating our usual format this month. As a result, the mag is overweight to go by magazine post to certain parts, and we therefore apologise to those of you who receive a coverless edition.

.....

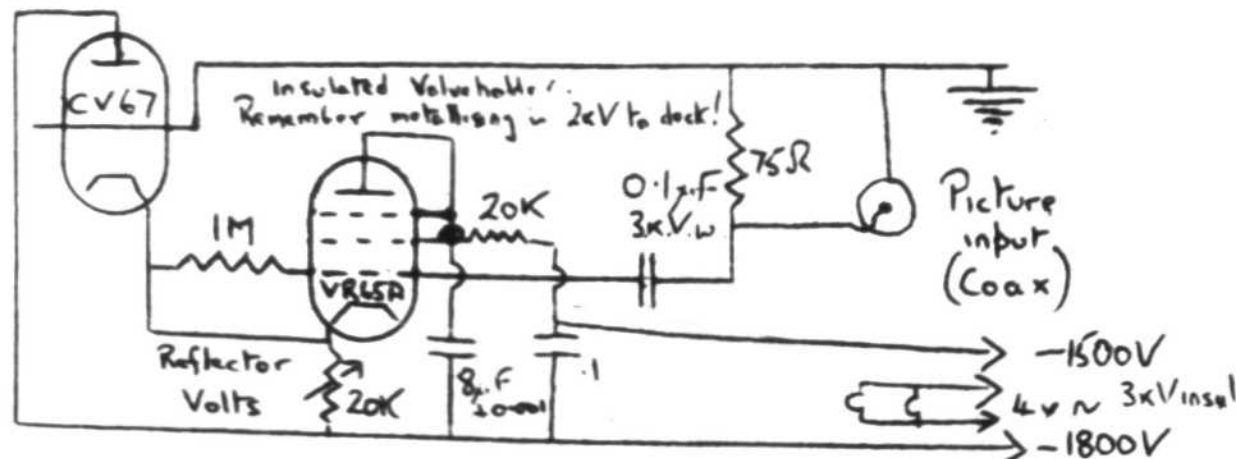
Late flash from the GPO: It is now NOT necessary to hold a BC TV receiving licence in addition to the TV TX licence, unless, of course, you intend watching BC TV. Viewers licensed for BC TV may also receive amateur TV at no extra cost (!) if they send their licences in for endorsement to the GPO.

.....

Run your scanning tube at its max. Brilliance, oms @ less noise on the picture.....Has anyone any 16mm driving sprockets &/or motor?

.....

Here is a modulator suitable for that klystron unit; watch the EHT.



# NATIONAL AMATEUR TELEVISION TRANSMITTERS' CONVENTION 1951

The Convention was held in the very pleasant surroundings of the CEA building in Shaftesbury Avenue, London, the venue of the Television Society meetings, and by all accounts, was a great success. Although we did not have a very large attendance, it is significant that no less than 16 members came more than 100 miles to be present for the day.

In the morning, great activity by the early-comers enabled the stands to be put up, and the various bits of apparatus to be installed and tested in time for the meeting to open at 10.30, with G3CVO in the chair, ably assisted by PAØZX of the Groningen TV group. After greeting the members present, CVO read out the conditions of the TV licence, and invited comments from the audience. Many points were raised, and in particular a resolution proposed by Mr Bishop and seconded by Mr Rose G 3BLV to the effect that the royalty demanded by the GPO was grossly excessive and would tend to discourage transmitting activity was passed unanimously. (See separate article on licence conditions).

A discussion of standards followed. By the terms of the licence, some of these are already fixed, since the apparatus must be of such a nature that the transmitted signal is capable of resolution on a standard TV rx. However, the matter of the video polarity to be recommended caused some lively comment, some of the speakers being G3ETI, Grant Dixon, PAØZX, Mr Oakley and Mr Davies. It was agreed to recommend the use of positive modulation on the microwave bands, and to leave the 70 cm band undecided for the moment. The use of double sideband horizontally polarised transmissions was also agreed upon. Standards for colour will be left open for the time being.

The Chairman then called upon Mr De Waard, PAØZX, to say a few words about the general situation in Holland, and this he did in a few well chosen sentences. The Chairman thanked Mr De Waard and all those present for their support, and expressed his thanks to the CEI for the use of their Council Chamber. Mr Fred Rose then proposed a vote of thanks to the Chairman for his work on behalf of the Club, and the meeting was then closed.

The equipment on show was soon surrounded by crowds of interested members, Fred Rose's telestill unit in particular being the object of much admiration. For the duration of the show, Fred was hard put to keep explaining the details, and showed some very fine pictures under surprisingly bright extraneous light condx. George Short drove down from Harwich with his Iconoscope unit and pulse generator, but owing to lack of a monitor unit was unable to demonstrate it in action. Nevertheless, several rather unorthodox bits of construction involving chromium headlight reflector rings (lens turret) and Woolworth's towel rails (handles) in addition to the very neat layout of the unit showed the shape of pictures to come.....

Grant Dixon brought his latest pulser up from Ross-on-Wye for the day, together with a neat 35mm filmstrip gate for telestill work. Other gear on view included 420 mc gear (G3GB0), 13 cm tx and converter (G3CVO), video preamps and 45 mc AM/FM IF strip (G3C70). A display of photos of the gear of G3ETI, SM5TT, G2DUS and Messrs Watts and Bellamy, and a large selection of photos of the PAØTV section at Groningen concluded the amateur display. Messrs EMI showed an Emitron camera tube, and the latest 11 stage photomultiplier tube, plus a selection of photographs and some literature. The Television Society had a stand, and Mr Clad was in attendance most of the day. The Short Wave Listener had some copies of the SWL on show. A stand devoted to "CQ-TV" had back copies of the magazine on show, and these produced plenty of enquiries at the B.I.T.C stand. On sale at the latter were all Club requisites such as subscriptions, QSLs, badges, notepaper, membership certificates, etc. Test frames of film were also available.

Unfortunately, the commercial photographer did not arrive, and it is not

known whether G3CVO's 35mm camera was quite up to the job. During the afternoon several trips to Edgware Rd and Lisle St were organised, and at 5.30 the big draw took place. Unfortunately, the valuable prizes did not materialise, and it was necessary to improvise some almost as valuable ones instead! So the Convention ended, with some useful contacts made, enthusiasm encouraged, and goodwill furthered. All agreed that it had been well worth while to attend and see what that other fellow had been doing, and it may be possible to hold another meeting of the Club at some future date.

Club members present included P14ZI, G5ETH, G3AKJ, G3BLV, G3GB0, G3HAW, G5PP, G3AMB, G2WJ, Messrs. Raby, Prewett, Davies, Bishop, Stockdale, Wild, Etherden, Oakley, Bellamy, Watts, Wemyss, Dixon, Freeman and Royle.

#### THE TELEVISION TRANSMITTING LICENCE DETAILS from the GPO.

(These conditions are only provisional and may be modified after some time of trial).

The general conditions of the licence covering such things as copyright, advertising, propaganda, control in emergency, GPO inspection, etc are identical to those in force for the sound licence. Points of interest are summarised below:

- 1 (1) b. The vision signals....shall be of such form that they can be readily received on a standard TV receiver; symmetrical or assymetrical, positive or negative modulation may be employed.
- c, d, & e. The station may only be operated under the licensee's personal supervision and visual images shall not be such as to cause offence to any casual or other viewer. The station shall not be used for the reception of broadcast TV, nor on behalf of any other person.
- g. Any other licence issued by the GPO is hereby revoked.
2. Frequency known to 0.75%; a satisfactory method of frequency stabilisation to be employed at the transmitter; 3, 6, 13 and 25 cm bands only; care to avoid overmod.
5. The sending apparatus may not be on the air for more than 30 consecutive mins, with or without mod, and the licensee must listen on his sending frequency first.(...)
6. The log .....(must also include) the subject of transmission.
7. The station must be equipped for the reception of RT, CW or MCW messages on the transmitting frequency.
- 8 ii A representation of the call signal shall be sent in visual form at the beginning and end of each sending period.
- 8 iii Immediately before and after and not less than once every ten minutes during a video transmission, the station call must be sent on the video channel by MCW or RT only.

General: The licensee must hold a normal transmitting licence AND a BC TV receiving licence. Any station receiving amateur TV signals MUST HOLD A BC TV receiving licence too. The vision royalty is provisionally fixed at £3 per annum, so that the total cost of the licence will be £1-10 plus £2 (TV RX) plus £3 (TV TX). (A note of protest has been sent to the GPO at this £6-10 penalty for wishing to experiment more fully with our hobby).

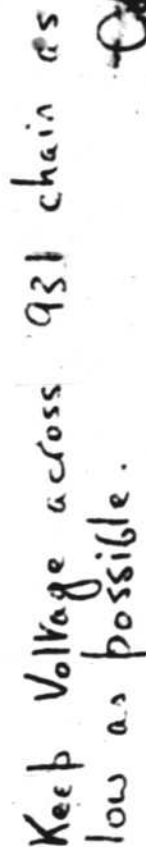
Anything in the nature of a TV broadcast, as opposed to visual communication, is expressly forbidden.

Rebroadcasting of BBC TV is not allowed, but this apparently only applies to the video and not the sync pulses.

(There are several points to be cleared up with the GPO, and full information will appear in CQ-TV as soon as possible).

WHAT DO YOU THINK OF THE LICENCE? WRITE IN WITH YOUR COMMENTS.

REPRINT



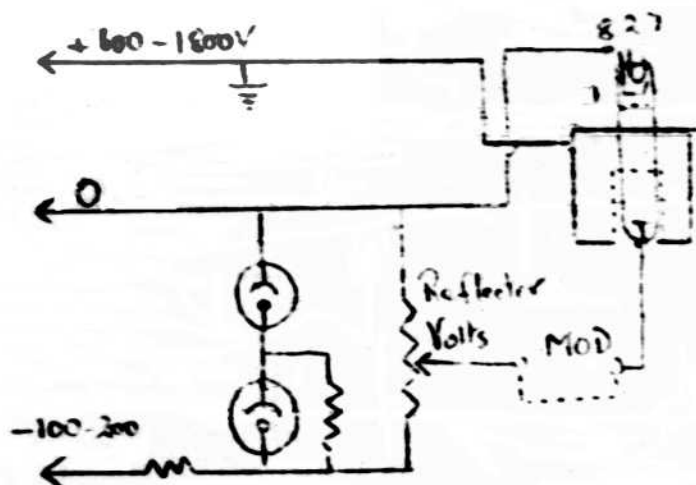
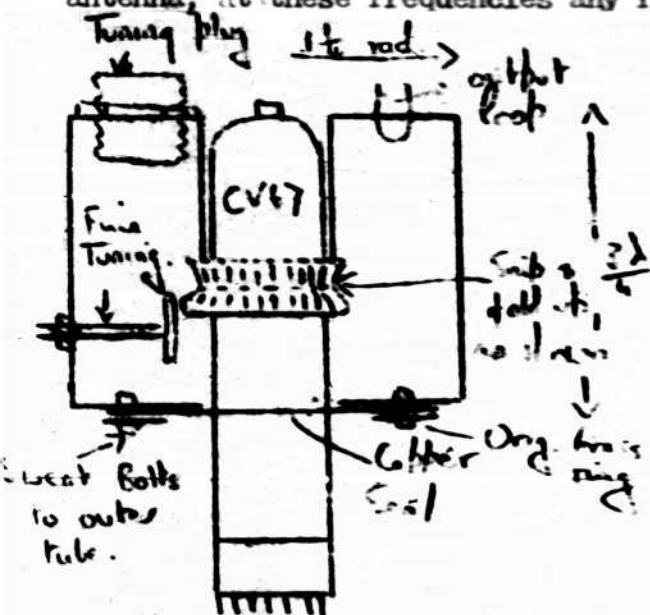
93/A!  $\Sigma$  1MS  $\downarrow$  -250v

"WHAT! NO! GOT WATTS, OM?" or HOW.....ON 13 CMS

By M. Barlow, from notes of Tony Sale's.

Those of you who were able to attend the Convention saw a replica of Tony's original transmitter constructed by G3CV0. This unit is capable of producing about 250 milliwatts on 13 cms, which combined with a 60 degree corner reflector of some 15 dBs gain, is quite sufficient for Q5 S9 signals over an optical path.

The transmitter heart is a surplus CV67 klystron, not so readily available as before, but still in some units. Several methods of using these tubes on the TV bands have been put forward in past editions of CQ-TV, but the present one combines simplicity with efficiency and ease of construction. Basically, the klystron is running in a  $\frac{3}{4}$  wavelength coaxial cavity, which is then mounted right alongside the antenna; at these frequencies any feeder system except good waveguides is OUT.



A rough diagram above shows the idea. Remove the existing brass cavity from the klystron, and, with a small pair of scissors, snip the top copper seal (careful!) radially; then bend it upwards - mind the seal - and outwards, so as to form a finger contact onto the inner pipe. No need for a contact all round as there is plenty of capacity present. The inner conductor is a piece of copper tube a sliding fit over the CV67. Some tubes vary in diam, but  $1\frac{1}{8}$ " dia should do the trick. The outer conductor is  $2\frac{1}{2}$ " in dia, and  $3\frac{3}{4}$  long, i.e. about 9 cms. Silver plated copper is the stuff, of course, but tarnished brass or even tinplate does nicely (try a Glucose tin for size). Polished sides of both tubes face into the cavity. Solder one of the original rings to the fingers of the outer tube, having sweated some bolts to it first. A metal plate with a hole for the reflector lead goes on the other end. Get the thing as squared up as possible, or there may be a danger of cracking the tube when inserting it or clamping it in.

Tuning is done by screwing in or out one of the original tuning plugs, which is sweated to the cold end of the assembly. Fine tuning is done by moving a small plate which slightly overhangs the two seals, and is really only necessary when the identical assembly is being used as a Local Oscillator. Make sure these plugs are tight, or the Q of the thing will go down, besides changing one's frequency in a wind. Current pickup via a small loop at the cold end, or voltage pickup via a probe at the hot end finishes the unit.

Connect up as shown for test purposes. 600v HT (5mA), 4V AC and a variable bias supply giving 0-150V will do. Stick a meter in the anode lead, and watch To P2

MEMBERSHIP LIST CON TD. Pt ii - Unlicensed members

C.H.Banthorpe	136 Fairholme Crescent, Hayes, Middx.
D.P.Bishop	14, East Wyld Rd, Weymouth, Dorset.
W.D.Colgrave	Grange Farm, Welford, Nr Rugby.
A.C.Dawson	58, Bramber Rd, West Kensington, W 14.
Grant Dixon	23, Wye St, Ross-on-Wye.
K.Etherden	51, Fielding Rd Acton, W4.
G.Evans	46, Bush Grove, Stanmore, Middx. EDGware 3259
Tony Gilbey BRS18324	6, Victoria Rd, Chelmsford, Essex.
W.R.Goden	59, Mycenae Rd, Blackheath, SE3. GREENwich 1856
W.E.Hall	11, Gransden Rd, E8.
J.Hain	c/o Brasenose College, Oxford.
S.F.Hannaforde	"Beachwood", Croston Rd, Lostock Hall, Preston, Lancs
R.F.Hills	27, Elms Rd, Harrow Weald, Middx. GRIMSDYKE 1834.
D.M.Hudspith	70, Hartland Way, Shirley, Croydon, Surrey.
Tony Leaverland	"Ivanhoe", Station Rd, Ibstock, Leics. Ibstock 208.
W.Oliver	1, Moorlands Grove, Morecambe, Lancs.
Vic Paige	32, Feversham Rd, Salisbury, Wilts.
Peter Parkin BRS14981	Abinger Arms, Abinger Hammer, Surrey; tel 145.
R.F.Pilkington	Graizelound, 65A Ely Rd, Littleport, Cambs.
Jack Porter	30, College St, Worcs. Worcester 2242.
J.N.Prewett	1, Holt Cottages, Leatherhead Rd, Chessington, Surrey.
W.G.Proctor	Oak House, Prestbury, Ches.
D.P.Rafferty	Flat 3, 13, Queens Gdns, Lancaster Gate, W2.
B.P.Renwick	41, Herbert Rd, Hornchurch, Essex.
K.A.Y.Russell	85, Beaufort Rd, Southborne, Bournemouth.
N.Rutherford	5, Main St, Carlton, Notts.
Tony Sale	Curson House, Lane End, Bucks. tel 274. <i>High Wycombe</i>
G.G.Short	High St, Swineshead, Boston, Lincs. tel 302.
R.Styring	62, Southgrove Rd, Sheffield, 10.
C.M.Swift	92, Grange Rd, Alvaston, Derby.
W.A.Wemyss	Sgts Mess, D & M School, Bovington Camp, Dorset.
D.W.White BRS15908	Braeside, Station Rd, Lapworth, Warks.
M.Wild	13, Parkside Crescent, Meanwood, Leeds. tel 55020.
Fred Wood	Mineru, 6 Lessness Ave, Bexley Heath, Kent. ERITH 4126
G.Yogge	28, Manor Ave, Brockley, SE4. TIDEway 2125.

ERRORS AND OMISSIONS

P.Davies	c/o Catterick Amateur Radio Club, Loos Lines, Catterick Camp, Yorks.
R.D.Raby	3089519 S.A.C, Radar Link T Division, REURAF Henlow, Beds.
W.R.Eadie GM4JO	32, Mitre Rd, Glasgow, W4.
D.P.Nolan	3, John St, New Ross, Co Wexford, Eire.
Bengt Barkland	Gladgrand 5, Hagersten, Sweden.
D.W.E.Wheele G3ANJ is now at "Malvern", 56 Burlington Gdns, Chadwell Heath, Essex. SEVENKINGS 1051.	
S.J.Davies G2FLA has withdrawn from the Club.	
If A.Bartholomew or J.D.Casson will send me their addresses, I shall be very grateful.	

KEEP IN TOUCH WITH LATEST TECHNIQUES - READ CQ-TV REGULARLY.

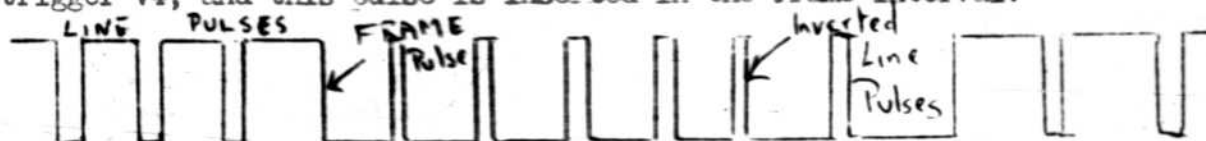
A PULSE GENERATOR UNIT FOR THE BEGINNER

By Grant Dixon.

The following circuit is the result of much trial and error, and is still by no means perfect. It is offered in the hope that it will help the beginner, and draw some helpful comments from the more enlightened.

Points to note are (1) a complete blanking pulse of a duration greater than the sync pulse is produced. This means that the raster on the scanning tube is exactly the same size as the picture transmitted, and the photocell gives no output during the sync pulse period.

(2) By inserting a resistor in the second cathode of V4, a positive line pulse can be obtained and used instead of that from V3 (See oct diag). Owing to the "fall to zero carrier level" occurring later in this case, the top few lines of the picture are apt to wobble. Thus a short pulse from V3 is used to trigger V4, and this pulse is inserted in the frame interval:



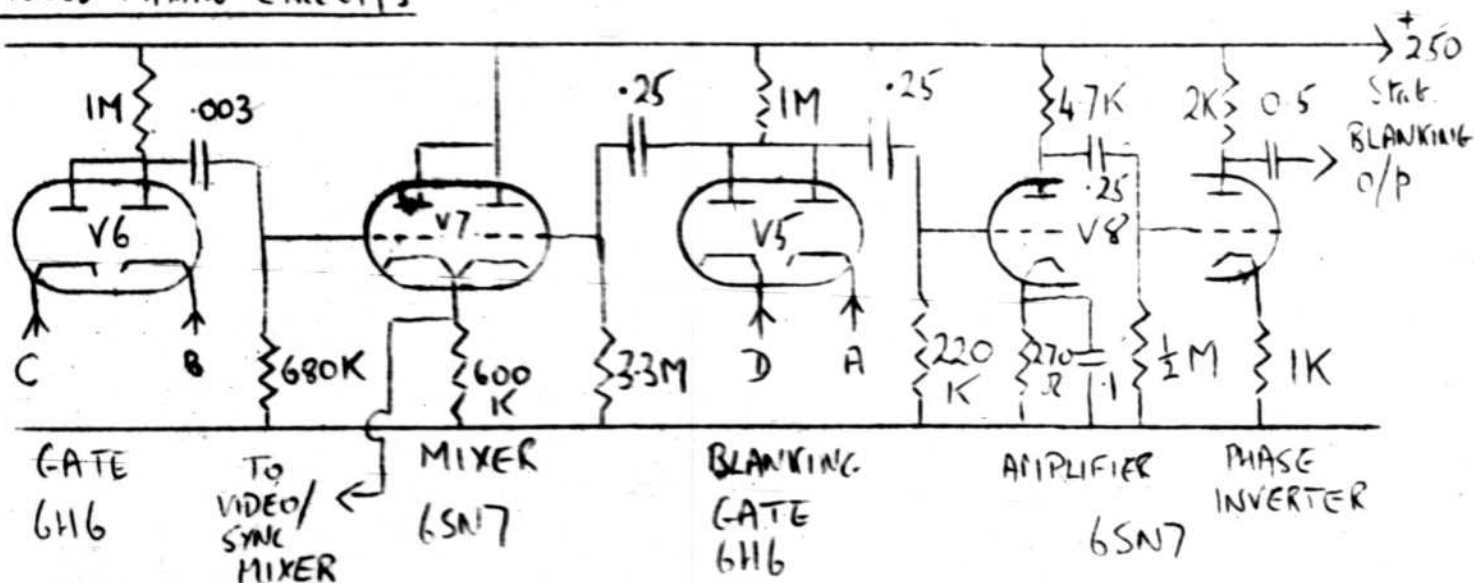
Strictly, these inserted pulses should be at 20 kc/s to approach the BBC waveform, but the 10 Kcs ones work perfectly, and have the advantage of not showing up as a bright white line down the centre of the picture should they somehow get into the video.

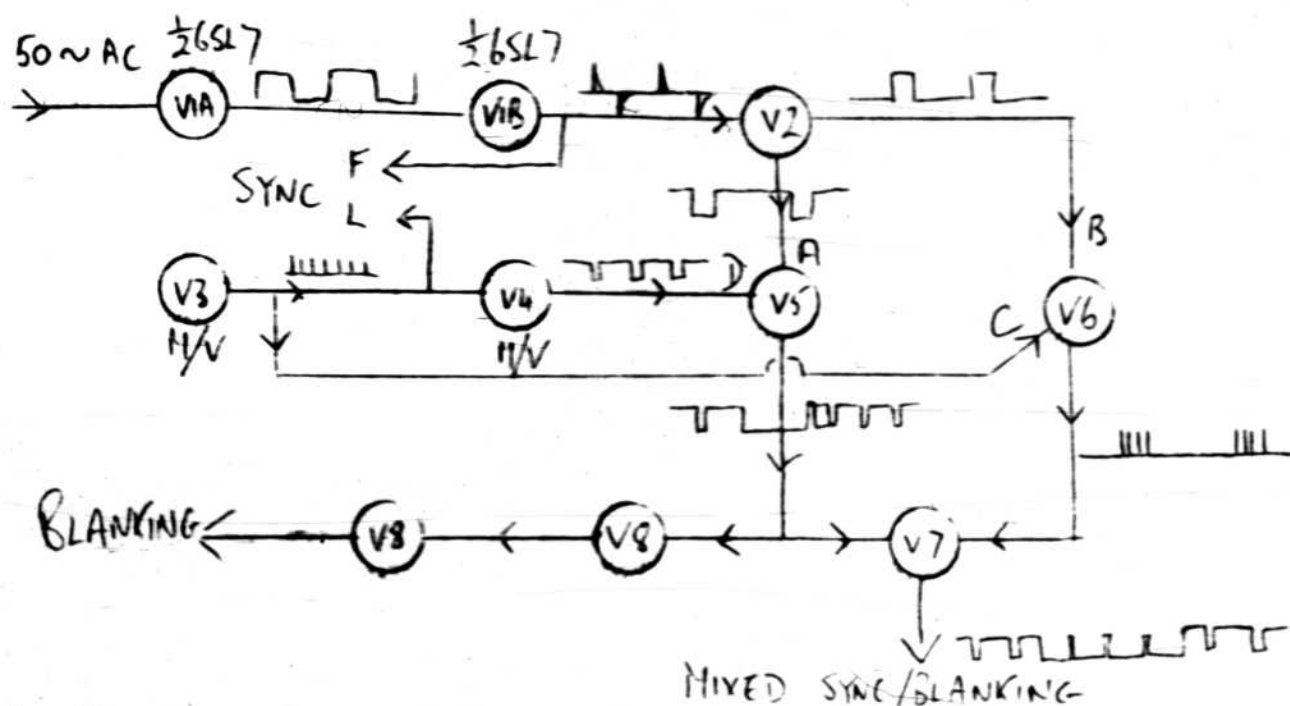
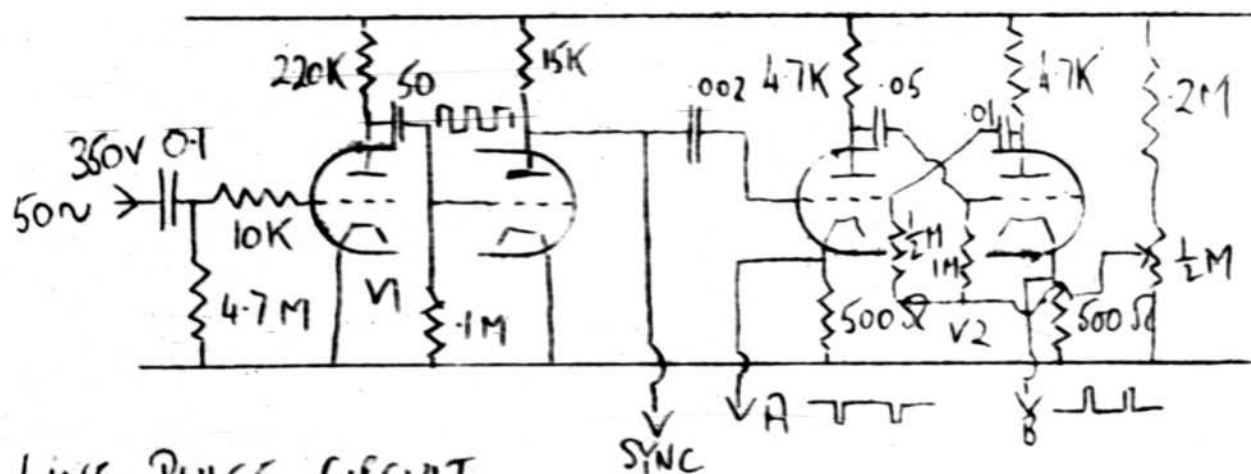
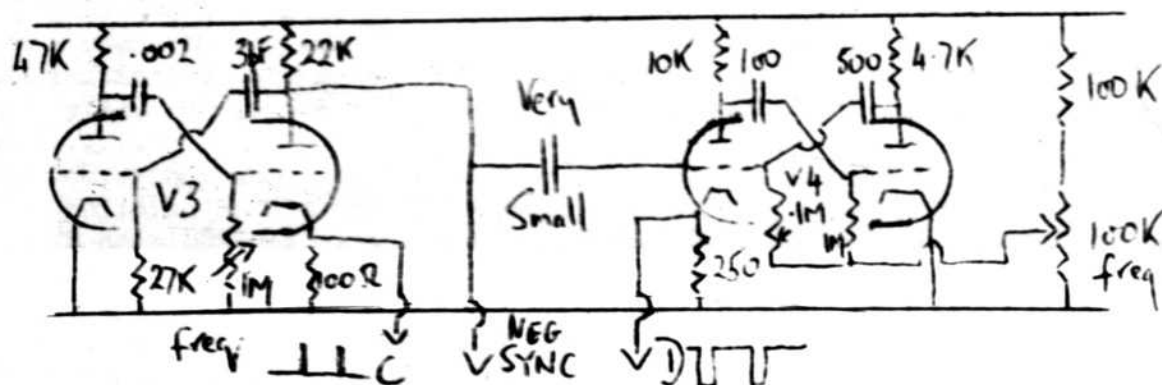
(3) The relative amplitudes of the pulses are controlled by the cathode resistors.

(4) The two sync outputs and the blanking are fed through individual screened cable in a common covering to the scanning tube.


(5) The entire unit is run from a regulated HT supply, using the usual series valve circuit.

(6) Further experiments might be made along the following lines: use of flip-flops, and use of cathode coupled m/vs. If you do improve on the circuit, please let Grant know.....experientia docet!

PULSE MIXING CIRCUITS

BLOCK DIAGRAMFRAME PULSE CIRCUITLINE PULSE CIRCUIT

## "WHAT THE OTHER FELLOW IS DOING"



Here's an interesting letter from Gerhard Merz, DL1BB of Munich, who says that there are quite a few DL's anxious to try TV, but the licences are nowhere in sight. Let us know results, on - they can't stop you trying telestill and telecine over a closed circuit.

D.W.E. Wheele, G3AKJ, reports that he has now moved to a new QTH, and so has not had much time for TV. However his job appears to consist of playing with pulses, etc, and he hopes to be active as soon as possible.

Tony Sale sends in a brief report that he has ordered a 5527, but has been busy with his radar guided robot.

Ivan Howard, G2DUS, is co-operating with the GPO in the 420 Mcs tests, and has also been busy giving demonstrations at various functions in the Bedford area. Owing to pressure of work, he has not yet been able to rebuild, but hopes to do so soon.

Jack Hargreaves, G5VO, has been doing his Z service, but he reports that he is still active, and would like to meet other B.T.Cs in his area (Beaumont, Yorks).

Bengt Darkland, who with S3ETT and others is doing great work with a 5527 in Sweden, has now acquired an LC2X and is going ahead with a telestill unit, in addition to the very fine Ike unit, photos of which were at the Convention.

Ray Hills has now been demobbed, and is building a converter for ham TV for his receiver. Dave Hudspeth's car has used up all his spare cash in a fit of breakdowns, but Dave is waiting patiently.... Sandy Wemyss has been doing work on 420 Mcs, and is now carrying out a series of tests on behalf of the Club, to determine the best means of modulation at VIF and UIF. George Haylock G2DHV reports that he has already had some QSO 's on TV on 2000 Mcs, but for the BBC! George is still building up his UIF gear.

George Short has rebuilt his camera unit with only the video amp in the camera so as to avoid 10 kc breakthrough. His 16mm telecine unit is in full operation, and George hopes to let us have the details later.

Ian McWhirter G5ETI blew out his EHT pack on switching on his telestill unit just before he brought it to the Convention..... However, the 35mm cine unit appears to function, and Ian says that he will be available from July 1st with 15 mW on 10500 Mcs, negative mod, 50% sync level, AM. Sound on 1.7 Mcs band, 1900 kcs. He expects to shift the sound to 2 metres in the near future. Incidentally, Ian reports that under the bench at work he has found something that looks like this:

No comment. Good luck, on.

M. Wild, Leeds, has also been very busy professionally, but was able to get down to the show to pick up a few hints; he has "some gear" under construction. Bob Styring and friend have been getting closed circuit stills, and are now rebuilding with 12" monitors. Keep it up, oc. Dalton Raby has a 13 cm tx ready using a C V90 in a coaxial line cct, and is busy with the necessary rx. He is going to let us have the gen later. Pete Parkin explains that he is taking the ham exam, and so.... Bill Wheele missed the show due to postal trouble, but is enthusiastically burning out tubes at UIF in order to find out HOW. He has recently been posted, and is now on a different job. However, it appears that the TV man cometh.....

Ron Oakley hopes to get his club - the Southwest Essex R.C - interested in TV, and is building a 931L unit to impress them.

Fred Rose's 5527 is on the way, so G5BLV/TV should soon be operative; Fred used his sync pulses to align the peaking coils of his 931L video amp - just tune until they are faithfully reproduced at the output when fed into the front end. Make sure they ARE square to start with, though. Fred is now deep in 5527 circuits, and

"WHAT THE OTHER FELLOW IS DOING" Contd

Messrs Watts and Bellamy, of Die Ruhe, Chapel Ave, Nailsea, Bristol have a 5527 on order, and to fill in time have built an 86 tube interlace camera control unit! Photographs of this very fine effort were on view at the show. Next steps will be getting the station on the air on 15 cms, and members in the Bristol area are asked to cooperate.

Harold Jones, G5ZF has rebuilt all his camera gear whilst awaiting delivery of his 5527, and so was caught unprepared for the show. He is submerged under a rush of business at the moment, but will be active again as soon as possible.

Ron Eadie, GMAJO, our Scottish representative, is organising a radio show at the end of October, and is hoping to show some TV gear there. He will have his disc gear ex-1926 for a start! Anyone able to help (Glasgow area) please contact Ron at 32 Mitre Rd.

Bill Hall, our Lighting man, was hauled off to the Hackney Hospital (Ward A12, cms) just before the show, and reckons to be there "for some time". That was hard luck, Bill, and we all hope that you are now back in circulation again.

A marathon letter from Grant Dixon encloses useful information on his pulser and 35 mm filmstrip gate, both of which will appear in time. He is now starting work on his stuff for the NEXT convention, when he hopes to have something in colour. Nice work, om. Nigel Prewett down at Kingston is getting results with an ACR2X, and hopes to do something really good in this line.

Don Bradford, G5EBO has been tied up with exams and VHF contests, but has a good supply of ACR2Xs and ACR3s; he hopes to contact G3CVO for the first 13cm TV QSO; what about it, men? G3CVO has also been busy with exams, visitors, YL, convention, CQ-TV and all the other excuses, but has a complete 13 cm installation ready to go, and is trying to improve the picture on the telestill apparatus. A coat of black paint ALL over the scanning tube, and most of the 93L, plus a light tight hood, has enabled CVO to put 850V on the cell, with much improved results. The amplifier now has a gain of about 60 only, but with a very nice rising characteristic. Scanning with an ACR2X and monitoring on a VCR97 gives about 1 Mc resolution at the moment. Amplifier circuit is basically that given recently in CQ-TV using 6AC7s and a 6AG7. Modified oct will be given after further expts. A 12" monitor is under construction, plus pulse generators and timing units for use on the air. The VCR97 and ACR2X are at the moment strapped in parallel for simplicity. NB some ACR2Xs have a GREEN screen; watch it - those with gun assembly held in place by mica discs seem OK.

Hendrik de Waard, P4ZZI, and his wife Paula come over to represent VERON at the RSGS Convention, and paid a special visit to our show. The VERON magazine "Electron" recently had a special "Televisienuummer" devoted to ham TV, including a photo of the DUTC stand at the RSGS Exhibition. The transmitter at Hogezaand has been adjusted to 310 lines as Phillips have at last presented them with two commercial rxs for monitoring. A regular program is now transmitted every Saturday night on 2m in lieu of any commercial TV in the country. There are now five active TV groups on the air now; P4XN (Harlem), P4LQ (Leiden), P4ZZK/VT/BE/BF (Groningen), and two others in Amsterdam and Rotterdam. The P4s are having trouble getting 5527s, due to export restrictions in the US. The Dutch Government has refused to grant any money for commercial TV, but Phillips have a 700' tower at Lopik which they may use. However, countrywide coverage is maintained by the amateurs, who have a good following in all sections of the community. They recently sent a memorandum to the Government concerning the import of TV programs from the UK, France and Belgium, as Holland has a dearth of suitable TV material and artistes.

That's the lot for this month, chaps, and I think it is a very good show indeed. Activity is now at a peak, and it will be interesting to see what will happen next. Please send a telegram if you are in a TV QO as several newspapers are interested.