

P5 NEWSLETTER

REPEATERS

The group is presently applying for verification on the GB3XG licence to enable transmissions on the 1.3GHz band to be received and re-transmitted on 10GHz. This experiment will enable other users of ATV a chance to be seen by fellow colleagues from outlying areas initially to the West of Bristol. Details on operation will be published as soon as we have the go-ahead. The repeaters performance since its launch has been remarkable thanks to the efforts of the chosen few!! Several engineering projects were undertaken during the year, to which we have improved the RF signals.

I would be interested to here from those who receive the repeater what are the signal strengths and picture quality with respect to Distance / QTH, Weather Conditions and Season.

This would provide valuable information on propagation. Please keep a record and send it in to my address.

GB3ZZ has functioned without any problems during the Winter months. Ian (G6TVJ) continues to improve the Video specification with various filter and circuits. There are no major engineering projects planned as yet. If you wish to view GB3XG via GB3ZZ there is a DTMF code you can select. The number is listed in the text pages.

MEMBERSHIP

Membership is now due. Those who wish to pay can do so by sending £6.00 to my address or visit our stand at Longleat.

SUMMER COMP

Unfortunately, we will not be able to take part in this years Summer Competition weekend 8th / 9th June due to circumstances but we will have a go in the spring. However this does not mean that you cannot take part. Several members will be out with equipment so look out for them it all should prove very interesting.

P5 NEWSLETTER

As you can see the layout has change, this is because Brian GW6BWX has decided to retire as the P5 Editor. Therefore, we are looking for someone to take this position over. The Editor does not have to be on the committee but preferably have access to a PC and prepared to spend a couple of hours on each quarterly issue.

For the interim, yours truly G8YMM will carry on producing Brian's excellent work. Therefore, on behalf of the group and members I would like to thank Brian and hope that he will continue to produce his excellent P5 projects.

TV PRODUCTION



You will recall from the last news letter that we held a special social to enable a TV production company the opportunity to film ATV activities.

This was a great success on both side with plenty of Film footage and £90 raised for the group.

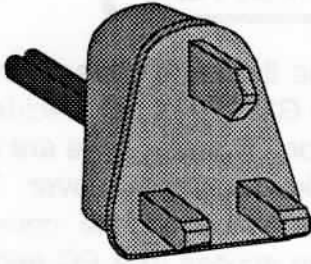
The documentary commissioned by HTV Wales will be screened 4th June 96 on HTV Wales 7:30 pm. Listen out on 144.750 for details as we hope to relay the pictures via the repeater. You will see one or two familiar faces, I hope my wife said nice things about me!! Thanks to all, especially Brian, Bob, Viv, Ivor and Pat for their help.

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13 AMP PLUGS AND THE ADOPTION OF A COMMON SUPPLY VOLTAGE THROUGHOUT EUROPE



The practical benefit is obviously that both users and manufacturers can be sure that products manufactured to a common specification will be usable throughout the community, and radio amateurs surely ought to have an interest in that. The CEPT licence has made cross-border excursions administratively easier, but the use of different mains connectors does not make it technically convenient. It appears that the administrative bureaucrats who produced the common CEPT licence have succeeded in removing barriers, whilst the technocrats can agree on the matter of a common voltage but not on a common connector. This situation has already been explained by Parkinson; that whilst the most weighty and complex matters are readily discussed and brought to agreement, subjects that are within the area of domestic knowledge provoke the most arguments. Thus we can more easily change the supply system parameters than the domestic connectors, and that takes us right back to the 13 amp. plug that is unique to the UK. Actually, this came up for consideration during the latter part of last year, and was met with the expected range of objections. How strange, I thought, after hearing such objection from a political spokesman, that this is regarded as an issue. The 13 amp. plug has been in existence for nearly 50 years, and only last year did the government announce that electrical equipment sold at retail should be fitted with this type of connector. In all that 50 years, no political spokesman has ever sought to have 13 amp. plugs fitted to anything, and now an alternative European connector is proposed, there are objections! For that entire period, the British public have been sold equipment without plugs, which they were required to buy separately and fit themselves; few had the knowledge to choose the correct value of fuse, although pictorial instructions ensured that the least qualified could fit the connector to the wires! I heard no political argument, that this shoddy and dangerous state of affairs should end, and found retailers equally unwilling to provide correctly wired connectors on their wares, telling me, *inter aliae* that the type of connector was a matter of choice by the purchaser, since there was no common connector throughout Britain. Really; in 1990?

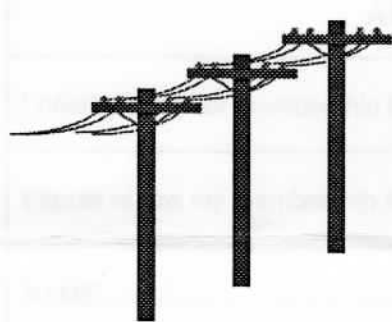
There has long been a proposal for a standard European connector, the matter was being discussed in the British Press a year before, and Britain as a member of **CENELEC**, the international organisation that is attempting to bring a common set of practices into European electrical systems, is aware of the proposals. There is no doubt that a resolution will be found, and equally certain is the non-acceptability of the 13 amp. square pin plug.

This makes it particularly puzzling that the requirement for a plug to be fitted to all electrical equipment sold retail, not previously considered necessary, has now been applied, and one might wonder if this was an attempt to obstruct; rendering it more difficult to adopt a different common connector throughout Europe, and leaving the consumer to pay the price.



What of the company in the UK that makes the larger number of 13 amp. plugs? One might expect a gradual phasing in of additional new production, since the European market will now be using the same connector as Britain, and the UK factory will have an exportable product, a larger market and the ability to achieve benefits of scale allowing reduced prices. Not in the least! When interviewed, the UK producer stated openly that a change of connector would put them out of business, since they could not produce any other sort of connector!! Flying such inflexibility in the face of reality does nothing for the country, and one hopes that it was not this sort of argument that finally persuaded the government to require the connectors to be fitted, rendering the entire product less-exportable. Perhaps the truth is nearer to "being unable to produce a different connector at a competitive price"? This reflects the shortage of European competition in the manufacture of 13 amp. plugs, and the fact that the local product could be over-priced; certainly it is an expensive connector.

The 13 amp. plug was required for use in association with the ring main that had been adopted for Britain's post-war building programme, and appeared to offer some significant advantages at the time, but really, these factors are no longer entirely relevant. The ring main provided an easy way of supplying a home with a current source that could support the 3 bar electric heaters that were regarded as being the largest portable devices that would be used in the home, and social behaviour appeared to allow that a family would tend to occupy one, or at the most two rooms in a small dwelling at any one time, hence the requirement that there need be only one ring in a property that did not exceed a specified floor area.. When the family retired for the night, the same 30 amp. ring main provided power to the upper floor or another part of the house, and this proved adequate for most families. The benefits of the ring were more likely to be appreciated by the builder than the user, as a fault was likely to affect the entire house rather than a single room or limited area. Nevertheless, 30 amps. is a lot of current on one circuit, and clearly the plugs on individual devices had to be designed to provide adequate protection, hence the fused 13 amp. plug which allows for appropriate fuse selection to match the needs of individual items. This current rating requires the use of a double 2,5 mm. cable capable of supplying considerably more than 30 amps., whilst conversely, if one side of the ring is broken, the 2,5 mm cable can be overloaded, although there is no clear indication that it has occurred, and this presents a "wrong side failure" situation.



Today, the demands on the power supply in a house are entirely different. We now have central heating, and costs rule out the extensive use of 3 bar electric heaters; the family unit has adopted a different pattern of behaviour, it does not sit together in one or two rooms, but uses several rooms at the same time, and the main demand is for a very large number of low power outlets that can allow the simultaneous operation of a TV, VCR, Computer, Music Centre, reading light, all located in the same corner of the room. The radio shack itself requires many outlets, and these sockets need to be small, if the appearance of wallmounted Christmas Trees is to be avoided.

It is quite common to find a 13 amp. fuse used in plugs that are supplying the smallest loads, and the public's understanding that a 13 amp. plug requires a 13 amp. fuse negates the vital safety feature. It is better to allow the design of the distribution system in the house to provide for improved safety, and not to leave it in the hands of those least qualified to do it. IEEE Regulations do permit the use of 20 amp. non-ring circuits on 2,5 mm. cable, (or 16 amps on 1,5mm cable) and this presents a more economical layout as well as more current for your money, since the same length of cable will give 40 amps. over two circuits, and a failure will be limited to a smaller area. In an office block or a factory, in buildings which have long linear runs, and are not as compact as domestic dwellings, the ring with its double cables is extremely wasteful, and the use of 20 amp. (or less) single cabled outlets far more economic in its use of cable. In these types of building, the use of power is quite different to the domestic use, since the power is required more or less continually and at a predictable level to each room, regardless of its occupancy; for example, one does not turn off the computers or the coffee machine when one goes off to the canteen for lunch. Thus the ring main offers no advantage, and the 13 amp. plug is superfluous.

The wired fuse is a dangerous anachronism due to its ability to withstand heavy overloads for a substantial period, and the cartridge fuse little better, far safer is the modern trend to use MCB's and ELCB's which can distinguish between a momentary short circuit, and an overload condition, and in the presence of the latter have a very rapid response compared to the fuse. An installation based on these modern components can be designed to be far safer than the older type, and really do not require the use of plug fuses which would, in any case remain intact for a longer period than the MCB takes to operate. Industrially, we use equipment which has readily accessible panel fuses, and a failure of such a glass fuse, or the operation of a trip can be detected and restored more rapidly than is possible by opening a plug, removing and measuring an opaque fuse cartridge, and then reassembling. Consequently, I see no advantage in this particular connector, and suggest that its continued use has become an inconvenience, and an excuse for inadequate system design.

The **CENELEC** organisation in Bruxelles, working with 11 West European countries provides its members with standards proposals, and leaves it to the individual states to harmonise their own practices. Clearly, there is a need to adopt a common safe set of practices, and the adoption of anything that directly affects the consumer, such as the domestic connector is going to be a hot potato. One suspects that the wish to stand by a separate set of standards may have more to do with national pride and independence, than the main issues of safety and convenience, and this could well be the reason that the voltage change, to be undertaken by the Supply Authority has received a faster response than the matter of connectors!

Radio Amateurs are more likely to be involved in transporting electrical equipment across national boundaries than many other travellers, and it is as much in their interests as anyone else's that a common set of safe practices are adopted for the supply of electricity to the user; they should be delighted to see the back of the bulky and obsolete 13 amp. plug in all its colours!

Alex Gordon LA0GV, G4TTB

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SEVERNSIDE TELEVISION GROUP MEMBERSHIP APPLICATION AND RENEWAL 1996/97

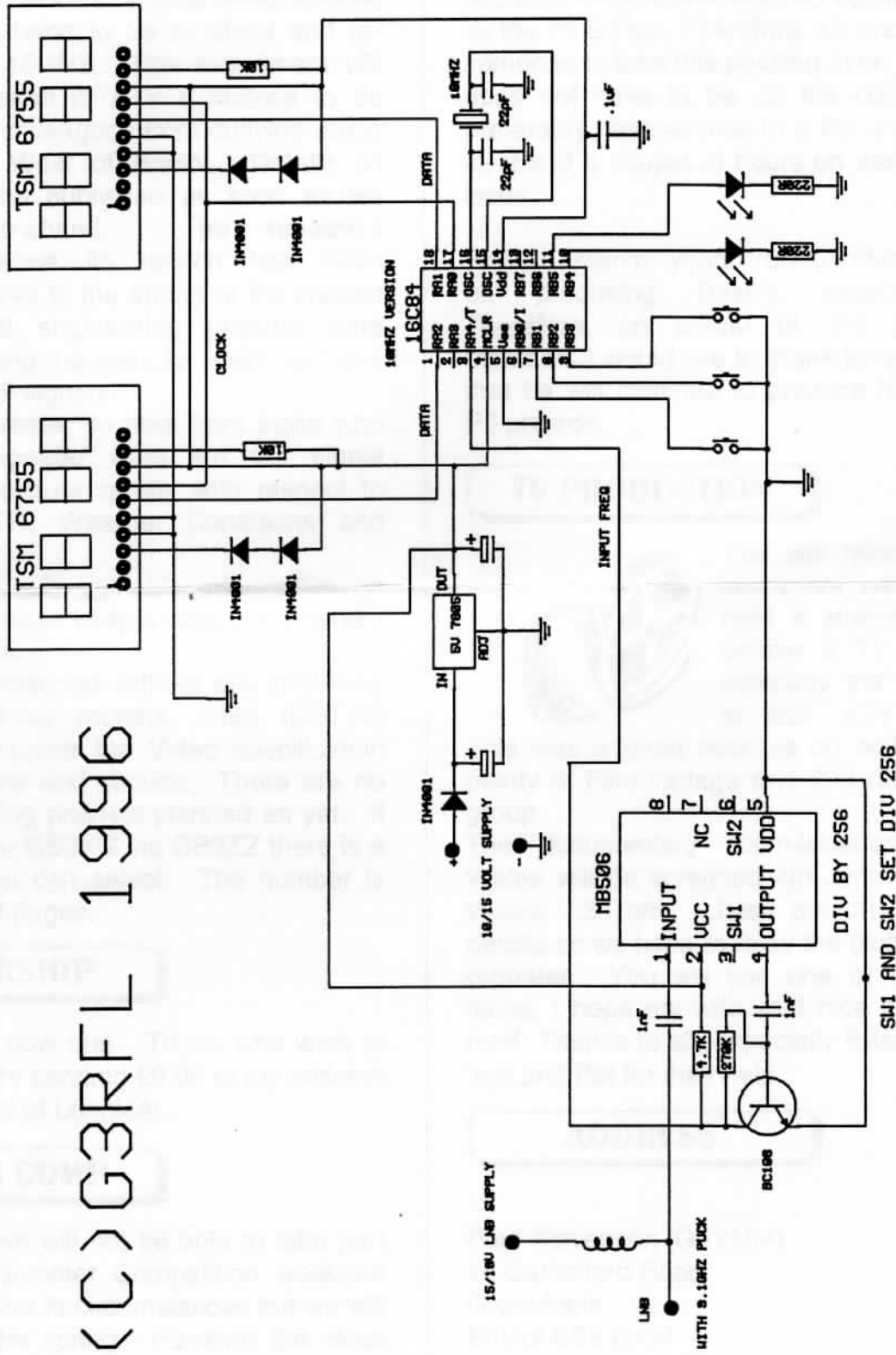
APPLICATION FORM	PLEASE TICK
I hereby apply for membership for the year 1996/7 and enclose £6.00	<input type="checkbox"/>
Please renew my membership for the year 1996/7 and enclose £6.00	<input type="checkbox"/>
NAME..... CALLSIGN.....	
ADDRESS..... POSTCODE.....	
TELEPHONE NUMBER..... STD CODE.....	

Please send your application form and cheque for £6.00 made payable to :-

SEVERNSIDE TELEVISION GROUP

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