

IN YOUR WORKSHOP



In which J. R. D. discusses Problems and Points of Interest based on Letters from Readers and his own experience

AT THE TIME OF WRITING, THERE IS THAT slight lull in the radio industry which presages the usual autumnal storm. Activity during the next few months will be continually increasing, especially in the London area, as the weeks advance towards two important dates. The first of these is that marking the opening of the Annual Radio Show; and the second is the inception of Band III transmissions. One or two seasoned engineers attached to manufacturers have been known to get extremely flustered in the past during last minute "panics" for the Show. Add to the normal activities the anticipated Band III rush and there may be, this year, quite a few more people getting severely worked up! As is common with almost every exhibition which has ever been held, no matter how well things are organised beforehand something is always sure to go wrong at the very last moment.

Seasonal Sales

Despite the "slight lull" I mentioned in the opening paragraph, the radio trade in Great Britain is in the comfortable state of enjoying a minor boom just now. Nevertheless, it still exhibits fairly marked "seasonal" tendencies—although these are, fortunately, by no means as severe as they used to be before the war.

During the summer of each year, things begin to go quietly. Sales commence to drop; and orders appear not quite so readily as they did during the spring. Most members of the public are out in the open air and the sun (when it shines), and interest in radio and television naturally decreases. As the

summer continues, things get quieter and quieter; until the Show arrives. The Show gives emphasis to all the new models which have become available, and the orders start to roll in again. Gradually, the tempo increases until what is known as the "Christmas rush" comes into being.

This "Christmas rush" is something of a phenomenon, but it definitely exists. It is probably partly due to the fact that people who have ordered receivers earlier in the winter start worrying their suppliers to deliver them before Christmas Day. Receivers which are intended as Christmas presents also become in short supply. Delivery dates begin to suffer. After Christmas Day activity eases off slightly, but, as the winter is now beginning to set in more heavily, sales of receivers still stay at a high level.

Then, spring appears; public interest in radio and television drops; and things begin to get quieter once more. Until the next Show!

Conversion Troubles

This year there will certainly be an added complication due to the fact that a large number of televisions will still require conversion to Band III when the I.T.A. programmes commence. Retailers are already converting as many receivers as possible at the time this article is being written, but there are sure to be plenty of set-owners who will leave things to the last moment. There is little doubt that some people will find it difficult to make up their minds whether to convert their existing sets or to buy new ones instead. If the existing receiver has

already given a good number of years' service, this is not an easy problem to solve. Others may wait to see if the prices of converters will "come down." It is doubtful if the latter will occur, since practically all Band III converters are tied, in some way or another, to the standard 2-valve circuit arrangement; and existing prices already seem to be pretty close to the bone.

It is possible that one or two minor "firms" may try to cash in on the situation by undertaking to carry out Band III conversions at bargain prices; the actual jobs being done in a slipshod and careless fashion. Such things have been known to happen before. The best safeguard for the domestic set-owner is to have his television converted by a good, reputable dealer, *who is an accredited retailer for the manufacturer who made the original receiver.* (In most instances this will, of course, be the dealer who sold the receiver in the first place.) Such a retailer will have access to any technical information and equipment issued by the manufacturer for converting the receiver, and he will be the man who is capable of doing the job correctly and properly.

Another word of advice concerns, especially, superhet televisions. If the receiver is a superhet and a converter unit is available from the manufacturer who made the existing receiver (the unit being especially designed to feed into the i.f. strip of the receiver), then that converter will be the one which it is definitely most advisable to employ. In such a case it would be better to wait a little while for delivery of the correct converter than to use one which feeds direct into the aerial socket of the receiver. One of the reasons for this is that with the second type of converter the whole arrangement becomes a double superhet, and it is possible that whatever oscillator and i.f. harmonics are generated may cause interference with the received picture. Also, of course, it is obviously preferable to use a converter which is expressly designed for the job.

So far as converters whose i.f. output is at a Band I frequency are concerned, there is also the question of breakthrough of the Band I signal. Unless the existing receiver is sited close to the Band I transmitter this trouble may not be so severe as has earlier been anticipated. Further, if a strong Band III signal is available it may tend to swamp out the Band I breakthrough. Since the Band I breakthrough signal will be carried mainly by the co-axial lead from the Band I aerial, it should often prove to be advantageous to insert an attenuator in this lead *before* it connects to the converter switching circuits. The trouble of Band I breakthrough will not prove too difficult,

of course, if channel switching over Band I is available on the existing receiver. The converter i.f. output frequency may then be set to a channel other than that of the local Band I transmitter while receiving Band III.

F.M.

A third feature which should be causing a lot of bustle this year is the fact that frequency modulation transmissions are now on the air. However, things seem to be fairly quiet on the f.m. front, and it is possible that manufacturers are seeing "how the land lies" before going into full production.

The difficulty, of course, lies in cost. People have become so used to buying sound receivers at fairly low prices that they are not keen on spending the few extra pounds required for a combined a.m.-f.m. receiver. Perhaps some enterprising firm will introduce an f.m.-only receiver that would combine low price with reasonably good reproduction (accepting the necessarily small cabinet dictated by price) and this may go down quite well. However, as the only transmitter in use at present is at Wrotham, and as most of the existing bad reception areas have yet to be offered an f.m. service, such a receiver might not be a good financial proposition at this stage.

Quite a few members of the public do not even know that there is such a thing as f.m. available! Still, with time, the fact should become accepted. It is quite possible, also, that a few f.m. sets will be bought purely on account of their "snob" value. For once in a while, I am not at all certain that such an occurrence may not turn out to be a good thing. This is because few people, after listening for some time to a receiver which has a top response extending above 3 or 4 kc/s, will really be content to return to those all-too-frequently encountered a.m. receivers which can only offer "deep, rich, bass" and "one-note-thump."

One does not expect the whole nation to become high-fidelity minded just because f.m. is here. Nevertheless, now that the necessity for narrow bandwidth a.m. superhets is being obviated there is every chance of receivers being made and sold which offer pleasant and balanced reproduction over a much larger part of the audio spectrum than is at present possible. Would it be too much to hope that, in several years time, receivers which give strong bass accentuation will be considered as being old-fashioned?

Shock Hazard

Twice in the last fortnight I have read in the newspapers of people being killed by

faulty pieces of electrical equipment. One of these cases concerned a radio receiver.

I know I have mentioned the question of shock hazard before, but I do not think that it is something which can be overstressed. This is especially true when one considers that there are newcomers to radio swelling this Magazine's readership every month.

What has to be remembered all the time whilst working with radio is that under certain conditions the domestic electric mains supply is lethal. The greatest care must be taken always, particularly when one is working with "live" chassis. There is, incidentally, no guarantee whatsoever that because a piece of equipment has a mains transformer its chassis is automatically isolated from the mains. In some cases the mains transformer is an auto-transformer, and a direct mains connection to chassis is still in existence. In others, it requires

only the breakdown of a mains-modulation condenser, the fraying of a lead, or any other similar causes, to make a seemingly safe chassis become "live." The on-off switch on the chassis itself also offers no certain protection, since it is frequently inserted in one mains lead only.

One golden rule is: never keep one's hand on a chassis whilst reaching with the other for a tool, a soldering iron, or anything else. If the chassis is "live" and the other hand touches any "earthy" metal work a very nasty circuit will be completed. Similar circuits can also be completed by the feet, or any other part of the body, through the floor, or bench, etc. Particularly dangerous are concrete floors and any metalwork.

There is nothing "clever" in receiving a shock. Commonsense and continual attention to the risks incurred when handling mains equipment are the only safeguards.

CLUB NEWS

Details for insertion in this section should reach us not later than 7th of the month before publication

EDGWARE AND DISTRICT RADIO SOCIETY

Meetings are held on Wednesday evenings, 8 p.m., at 22 Goodwyn Avenue, Mill Hill. Talks on a wide range of subjects of interest to the amateur radio enthusiast are given, and there are also practical evenings and regular junk sales.

New members, especially beginners, are welcomed. Hon. Sec.: E. W. Taylor, G3GRT, 99 Portland Crescent, Stanmore, Middx.

BRITISH TWO-CALL CLUB

Membership is open to all British subjects who have held two calls—one of which is overseas. Application forms can be had from the Hon. Secretary, G2DHY. New members this year include G3JFC/V5IGN, G2CDN/E15B/SU1CX/ZC1AR/ZC6AR, AR1LA, G6UT/Z5IRC, G3JYF/ZL1AIO, G3DFI/ZD6BX, G0M3TN/DL2YT. Hon. Sec.: G. V. Haylock G2DHY, 63 Lewisham Hill, London, S.E.13.

CLIFTON AMATEUR RADIO SOCIETY

The first Clifton transmitting field day, held on Sunday 24th July proved so popular that members have requested another contest later in the year. This has been fixed for 2nd October and will take place in the vicinity of Farnborough, Kent. Five stations took part in the first contest and the winner was C. Hatfull, G3HZL, who used 0.5 watt on 80 metres. Other contestants were G3DIC, G3FNZ, G3FVG and G3IWL, together with club members, who acted as log-keepers, etc.

Programmes for October:

2nd—Transmitting field day. 7th—Field Day discussion. 14th and 28th—Constructional Evening and Ragchew. 21st—"Radio Frequency Cables," by Mr. R. J. Slaughter of Telcon.

Meetings are held every Friday at 7.30 p.m. at the clubrooms, 225 New Cross Road, London, S.E.14. Details of membership can be obtained upon application to the Hon. Secretary: C. H. Bullivant, G3DIC, 25 St. Fillans Road, Catford, S.E.6.

QRP SOCIETY

The end of the month will see the final judging of the Portable Amateur Radio Equipment Contest. Entries can still be accepted up to 30th September.

The Society is fast making a name for itself overseas, and is keen to enrol low-power enthusiasts everywhere to help further the cause of QRP.

Transmitting amateurs, SWL's and experimenters in the low-power field are assured of a warm welcome, and are invited to write for particulars of membership. Hon. Sec.: John Whitehead, 92 Rydens Avenue, Walton-on-Thames, Surrey.

RADIO AMATEURS' EXAMINATION COURSES

The Grafton Radio Society have again made arrangements with the Islington L.C.C. Men's Evening Institutes to hold an official course of instruction for the Radio Amateurs' Examination during the coming winter months at GRAFTON SCHOOL, EBURNE ROAD, HOLLOWAY, N.7 (one minute from the "Nags Head").

Classes (for beginners) are as follows:— Mondays: Radio Theory 7-9 p.m.; Morse 9-10 p.m. Wednesdays: Practical 7-9 p.m.; Morse 9-10 p.m., the full fee being 10s. Classes commence on Monday, 26th September (enrolment week 19-23rd Sept.) under the instruction of Messrs. A. Perry (G3DKX) and L. Barber.

In addition, the Grafton Society also meet on Friday evenings at 7 p.m. for the usual club activities (including lectures by leading "hams" and the trade) at which Morse will be available, 9-10 p.m.

Application in the first instance should be made to the Grafton Radio Society Hon. Secretary: A. W. H. Wonnell (G2CJN) at 145 Uxendon Hill, Wembley Park, Middlesex.

Courses of instruction have been arranged at the Ilford Literary Institute (High School for Girls), Cranbrook Road, Ilford. (Adjacent to Gants Hill station, Central Line.)

An eight-months course for those intending to take the examination: Wednesdays, 7.30 to 9.30 p.m.; Morse and Codes of Practice. A six-month course for those who wish to learn Morse up to G.P.O. requirements for an amateur licence. Arrangements have been made for those who, in the opinion of the instructors, have reached the required speed, to be tested at the Institute by a representative of the Post Office. For students living in the Essex County Council area the fee for either course is 10s. or 17s. 6d. for both. Students from other areas will be admitted provided the Local Authority is informed.

Enrolment nights: 5th to 8th September inclusive, 7 to 8.30 p.m. Classes commence 19th September.

To ensure a place in the classes, please write to Mr. C. H. L. Edwards, G8TL, 28 Morgan Crescent, Theydon Bois, Epping, Essex, in the first instance.