

# CB

# Citizens' Band

Britain's Leading CB Monthly

85p

## MULTI-COLOURED MERCURY

British is best for under £100?

## THOROBRED

Top antenna review

## LEGAL CORDLESS PHONE

First Fidelity on test



## REFERENCE SECTION

Complete briefing

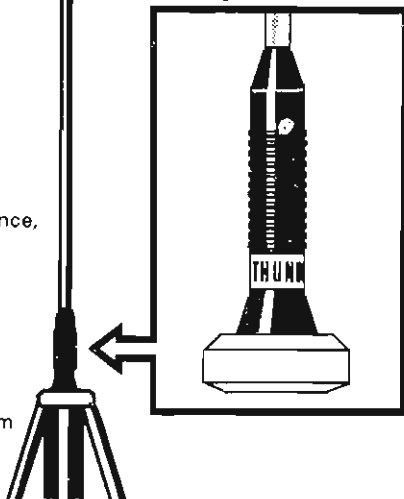


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# CITIZENS' BAND

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### ABC Cover this Month

Featured this month is the Mercury 1040 — a new rig that is not only British but it comes in three different colours *and* it's reviewed in this issue. Talking of coins, which we weren't, reminds me . . .

Have you heard the one about Pete Green, the famous numismatologist (coin expert, numb-skull!)? Well one day he went down to the launderette to wash his towel. Whilst loading his towel into the washer, his hat fell off and joined the towel in the tub. Before he could rescue it, the machine sprang into life and his hat was saturated and ruined! In a fit of pique, he took the hat and towel, stormed off down to the Bank and withdrew his famous and valuable coin collection. He took the coins, the towel, and his soaking hat and went down to the harbour where he kept his boat. He put the coins, towel and hat into the boat intending to sail away from it all! Just as he was casting off, a great wave swept the boat away from the jetty, leaving our Pete stranded at the harbourside! The next day the local paper announced that THE TOWEL AND THE MUSHY HAT WENT TO SEA IN BOOTY-FULL PETE GREEN'S BOAT!!!

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CITIZENS' BAND is normally published on the third Friday of each month prior to cover date.

CITIZENS' BAND, 145 Charing Cross Road, London WC2H 0EE. 01-437-1002. Published by Argus Specialist Publications Ltd. Distributed by Argus Press Sales & Distribution Ltd., 12-18 Paul Street, London EC2A 4JS. Printed by Knapp & Drewett Ltd, Kingston, London.

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Stabilized  
power  
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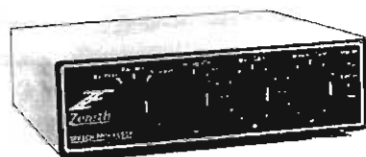
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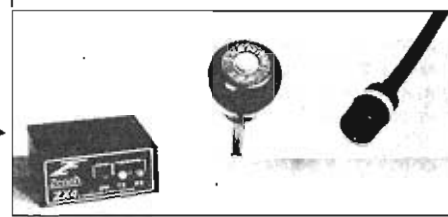
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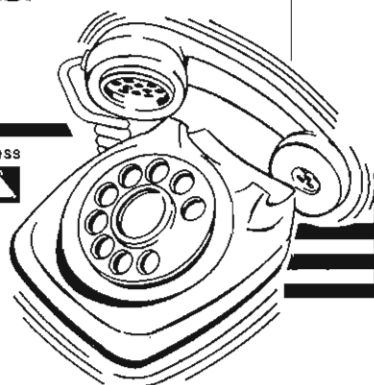
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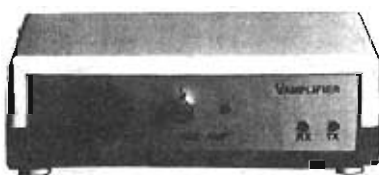
**BRAVO 2**  
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# UPDATE

**NEWS FROM THE WORLD OF CB**  
**NEWS FROM THE WORLD OF CB**  
**NEWS FROM THE WORLD OF CB**

'Have a nice day' said the smiling American as he left the office. 'Yes, I rather think I will' I replied.

We had been talking about CB in Britain. He was genuinely surprised that this magazine was still flourishing and that we had a steady readership. He had heard in America that Citizens' Band in the UK had been a flop. 'No way' said I.

That conversation was one of the first I'd had after being made Acting Editor of *Citizens' Band* and it affirmed my views that the CB radio service is here to stay. This month's features emphasise that fact. Once again we have a new British rig to look at — the

Mercury 1040. Now there are two promising things about that. One, it is new. Manufacturers are still interested in developing and selling rigs and that can be nothing but good. Two, it is British. Isn't it great to see a domestic maker break into the market? It means that even if the Japanese disappear overnight we still have some excellent rigs to use.

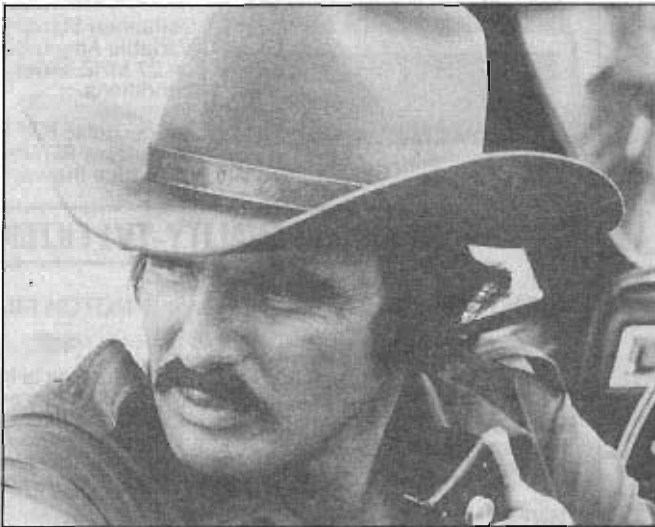
Mike Newbold, our QSL man, also has some excellent news. He says his postbag is swelling alarmingly each month and that the QSLing hobby is becoming super-successful. And that's not all the good news — this month we hear about the demanding

job that THAMES does, look at Britain's first legal cordless phone and meet a breaker who defies the myth that all Cbers are youngsters.

So, you see, my American friend was quite wrong. CB in the UK is no flash in the pan.

Finally, my personal thanks to the outgoing Editor of *Citizens' Band*. Chris Adam-Smith took over this mag just about a year ago and did a sterling job. Well, he got his just desserts — a promotion. He's become Editor of *Video Today* and I wish him the best of luck, Cheers, matel

Kevin Whitchurch



## One Man's Meter

New from South Midlands Communications comes the latest SWR/deviation meter. It's a neat little thing including calibration control and a forward, reverse, deviance switch. As far as we know it's the only model of its type available right now and you can get one by sending £13 + VAT to South Midlands Communications at SM House, Rumbidge Street, Totton, Southampton, Hampshire, SO4 4DP.

## Standing Room Only

New from Roger D comes the Rig Stand. Principally a Rig Stand allows a mobile rig to be mounted for use as a home base, while the design creates a funnel effect which projects the speaker sound forward and at the same time raises the rig so that the meters, LED display and controls are more accessible and visible.

The rig comes in six different colours — Royal Blue, Ice Blue, Charcoal Grey, Ebony Black, Ruby Red and Emerald Green. It will sell for around £1.99 and they are available from CB shops.

## Competition Winners

The May competition was for all you TV and film freaks. We asked you to name seven films or TV shows that featured CB radio. Now I think that was pretty difficult — most people can get around five or six but seven really is asking something. But once again the knowledge of you CB readers shone through and lots and lots of correct answers came in. Most of them included *Convoy* and the *Smokey And The Bandit*

movies, together with the *Dukes of Hazzard* and *BJ And The Bear*. Some of you even managed to think of a couple that hadn't crossed our minds.

But who won copies of *Breaker, Breaker* I hear you cry? Well, the lucky winners are: Mrs Diane Wyles of Tiverton, Devon, Ian Fell of Carlisle, Cumbria, Mr G M Beaver of Leicester, B S Bland of Old Trafford, Manchester and Mr D A Jones of Brynmawr, Gwent, South Wales. Well done to all of you. Commiserations to the other excellent entrants.

## Tenvox Technology

Car radio technology really has leapt into the space age recently. Take the latest Tenvox car audio unit for instance. Called the CE4432 it's a 2 x 8 watt stereo radio cassette with the option of an additional 4 x 22 watt separate amplifier. That makes 88 watts of sound!

The tuner, which is AM/FM, gives the choice of manual or auto-search tuning, while up to ten stations can be held by the electronic memory and recalled by feather-touch buttons. Tenvox say they have given particular attention to the elimination of signal interference on the CE4432. There's a dual gate



MOSFET to counter inter-modulation and drift and an FM noise blanker to overcome aerial pulse noise. There's also a mono/stereo switch to allow the immediate selection of mono reproduction in the fringe transmission areas where the stereo signal is breaking up.

The auto-reverse cassette deck features a

programme selector switch, a noise reduction system and a tape selector switch to allow the use of metal or chrome as well as ordinary tapes.

The CE4432 measures 180x50x120mm and is easily fitted to any car. It'll sell for around £199.95.

VAL Marketing Ltd, Unit 178, Milton Trading Estate, Abingdon, Oxon. OX14 4SE.



## Antenna Switch

Bredhurst Electronics have announced that they now have in stock antenna switches from Davtrend Ltd, a company more well-known for their high current (up to 24A) power supplies. The switches consist of a strong metal box with one input and three outputs so that one rig can be switched between three antennas. An unusual feature of these switches is the specification sheet that is supplied with each one. Some of the cheaper switches that have found their way onto the market have caused more trouble than they are worth. It is not unusual for a bad antenna switch to soak up almost half of the transmitter's output and to be the cause of a very high S.W.R. The Davtrend switches have a negligible insertion loss, as is shown

by the accompanying graph, and their S.W.R. is quoted as being 1.1 : 1 at 30MHz, 1.2 : 1 at 145MHz and only 1.5 : 1 at 440MHz. These measurements were taken with a Racal-Dana 9301A Millivolt meter and a Racal-Dana 9081 synthesized signal generator.

The switch itself is single pole with silver plated brass contacts and all of the antenna inputs are connected to ground via a 100k ohms resistor to prevent static build-up on unused antennas. At 150MHz, the isolation between adjacent connectors is 30dB and 40dB between the outside connectors.

For more details of these switches, which cost £15.40 each, contact Bredhurst Electronics, Handcross, Sussex (Tel 0444 400786).

## Valor Available

WTA Electronics, the CB specialists from Norwich, now have a complete range of Valor antennas, plus mounts and fittings, available. That's because their first shipment had been cleared by Customs and there will now be a regular supply coming into the country.

The range now includes the original Half-Breed, Warrior and Dia-A-Match. The 60" Half-Breed is rated at 1500w, and is the illegal centre loaded Warrior. The Dial-A-Match comes in 24" and 48" and offers fast tuning by way of two locking rings, therefore no cutting of the whip is required.

WTA also offer a complete range of spares at trade and retail prices, and mail order if difficulties arise when you try to buy from your local CB store. If you're interested write for details to: WTA Electronics, CB Specialists, 111 Cromer Road, Hellesdon, Norwich, Norfolk. Telephone: Norwich (0603) 47694.

## 934 Frequency Change

The UK channels for 934 MHz CB radio are to be adjusted in line with a recent international agreement on a channel plan for Europe, say the Home Office.

The agreement, which was reached by the Conference of European Posts and

Telecommunications Administrations (CEPT), means that the UK channels will be moved downwards by 12½ KHz. All other technical requirements will be unchanged.

The Home Office say that the decision follows consultation with the two - British suppliers known to be actively involved in 934 MHz CB. They are, of course, Reftec and Grandstand. It's thought that Reftec will shortly announce arrangements for the modification of their sets.

Users will be able to use equipment on the old frequencies for the time being but a date will be fixed by which all sets must be modified. Manufacturers will also be given a date by which all production must be for the new channels, but in practice they have indicated they will change almost immediately.

## Licence Fees Up

Regulations that came into force on June 1 amended the fees charged for a number of wireless telegraphy licences. But don't worry CB licence fees are unaffected.

Fees that are increased include aircraft licences from £8 to £15, amateur licences, from £8 to £12, and radio paging from £18.60 to £20. Some fees have gone down. Ship VHF licences have gone from £17.50 to £15 and a new category of private mobile radio licences for users wishing to use no more than five mobiles will be introduced with a fee of £60 instead of the present minimum of £65.

Apart from CB the only other unaltered licence fee is the TV one.

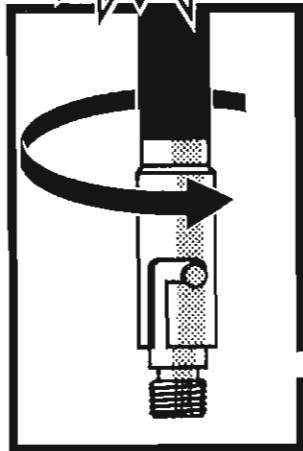
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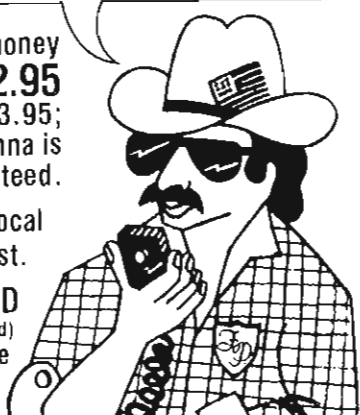
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British Patent App. No. 8304169.



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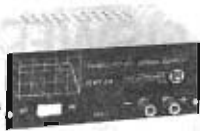




# STABILIZED POWER SUPPLIES



AS 12 1 - 12.6V 1.6 A



AS12 2 12.6V 2A



AS14 4 13.8V 4A



AS12 3 12.6V 8A



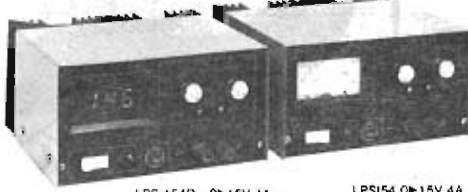
AS12 6 12.6V 12A



AS12 18 12.6V 18A



PSI42 5 5-14V 2.5A



LPS 154D - 0-15V 4A

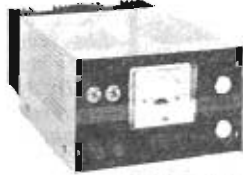
LPS154 0-15V 4A



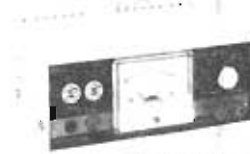
PSI4 6 5-14V 6A



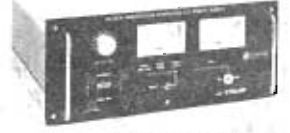
PSI512 10-15V 12A



LPS 25.4 - 0-25V 4A



PG 77 - 2-15V 2.5A

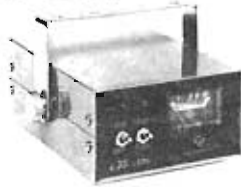


PSI525 5-19V 25A

## LINEAR AMPLIFIERS



L 22 0.5/10W 27 MHz  
L 32 5/30W 27 MHz



L35 27 MHz 30W



L92 27 MHz 80W



LA 300 - 100W 27 MHz

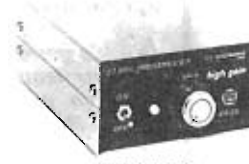
## PREAMPLIFIERS



PR15 Low noise 27 MHz



PR16 Medium gain 27 MHz



PR25 High gain 27 MHz



PR 28 High gain 27 MHz

## ANTENNA MATCHERS + ANTENNA SWITCHES



MB 12



MB 27 - 27 MHz



AS 2

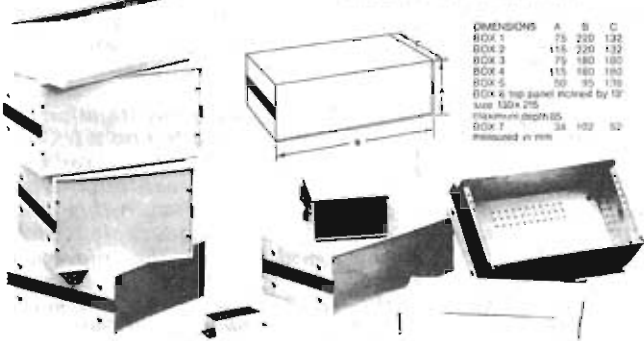


AS 301



SWR METERS RW 27  
3-30 MHz  
MINIMUM OUTPUT 1W  
MAXIMUM OUTPUT 200W

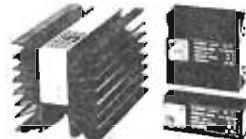
## METAL BOXES



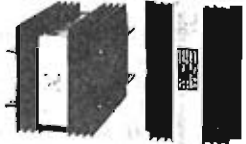
DIMENSIONS	A	B	C
BOX 1	75	200	132
BOX 2	115	200	132
BOX 3	75	180	180
BOX 4	115	180	180
BOX 5	50	90	170
BOX 6 top panel increased by 12 mm	130x 215		
BOX 7	50	100	50

Produced in mm

## DUMMY LOADS



DL12-12W DL25-25W DL100-100W



DL50-50W DL200-200W



DLV 100 DUMMY LOAD  
AND WATTMETER  
5-25-150W

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LOCAL CB  
SPECIALIST**

# P.G. ELECTRONICS

Sole U.K. Agents



RIGHT COMMUNICATIONS LTD.

[TRADE  
ENQUIRIES ONLY]



**Smart Alec has always said he's smart, but this month a couple of your CB questions are pretty difficult. Read on to see if Alec is really as smart as he boasts. . . .**

# QUESTIONS & ANSWERS • QUESTIONS & ANSWERS • QUESTIONS & ANSWERS • QUESTIONS & ANSWERS • QUESTIONS & ANSWERS

## Anonymous Asker

A smart *Citizens' Band* patch always goes to the writer of the best question in CBQ&A — except for this month. That's because the asker of the question has merely signed his letter 'CB fanatic' and has not included an address. I don't know why, it really is a great question. . . .

SA

\* \* \* \* \*

## A long, long time ago

**Q** Smart Alec, I think you would probably be the best person to tell me when CB was first invented, by whom and which country did it first appear in?

**A** It's generally accepted that public communication on two-way radio has been in existence ever since radio itself. However, the first organised service catering to the general public was probably the *Citizens' Radio Service* which was established in America in 1947.

It was established by the *Federal Communications Commission (FCC)* to permit short distance communications, signalling and remote control by means of radio signals. At first two classes of licence, A and B, were available. The frequencies given to both licence holders were the same — 460 to 470 Mhz in the UHF region of the radio spectrum. Although its uses, at the time, were practically unlimited and unhindered by the law CB radio was slow to gain acceptance in the States. It's felt that the chief reasons for were the expense of the equipment and the relatively short distance of communication possible.

This was reflected in the difference in licence types. Class A holders could operate with much higher transmitter power and therefore increase their range considerably. But the equipment used to do it was very expensive. Class B licence holders were restricted in the transmitter power they could use. Therefore their distance was much less. But their equipment was also a lot cheaper.

Just after the introduction of Class A and Class B licences a third category was established. Known as Class C this was reserved for remote control of

model airplanes, garage doors and the like. Radiotelephone communications were not permitted in this class.

By 1958 the FCC had realised the shortcomings of the service they had established. They also saw the need for a practical *Citizens' Band* radio.

So it was at that time that they introduced a new licence — Class D. This is the class that accounts for the popularity of CB radio in the States today. Frequencies were assigned in the 11 meter amateur band at these lower frequencies more reliable communications were possible and over much greater distance. Also, the Class D equipment could be made at much more reasonable prices than Class A and Class B equipment. Class B operation was discontinued in November, 1971.

OK, CB fanatic, I hope that answers your question. It's quite amazing to think that CB radio was up and about as long ago as 1947, isn't it?

SA

\* ————— \*

## Where Can I Get. . ?

Piles and piles of letters sent to me at *Citizens' Band* ask that question. Here is a selection of those letters and some answers which will hopefully point you in the right direction. First up is Andrew Crimlis, better known as Xerox, here's from Scarborough, up there on the Yorkshire coast. . .

**Q** Please could you give me the address of Pan International or any other distributor of beams?

**A** After detailed investigation it has proved impossible to find a UK distributor of Pan International radios and accessories. Any reader out there who does know of a shop in this country dealing in their product please let me know and I'll pass the relevant info onto Andrew. There is some hope though Andrew. I can tell you the address of the base of Pan International. It is Alpina Funk+Elektronik, Hellstar Feldchen 64, d-5102 Wurselen, West Germany.

And now a plea from the heart, the heart of Scotland that is. Vi Hawkins from Aberdeen writes to say. . .

**Q** Can anybody help me to get my rig fixed? I need a circuit diagram for a Super Star 360 FM/AM & SSB. I could take a photostat copy, if anyone can help me.

**A** Okay, is there anybody out there with the circuit diagram for Vi's rig? If there is do a poor breaker a favour and post it off to Vi at 254 Birkhall Lane, Mastrick, Aberdeen, Scotland.

Next up on the where-can-I-get list is Steven Jenkins of Grantham, he's on the lookout for an antenna. . .

**Q** I have looked high and low, search every nook and cranny but still failed to get hold of an antenna called the Avenger. It's a home base antenna and reputed to be very good. Can you help?

**A** Certainly can Steven. The full name for the antenna you're after is the G.A.P. Avenger. It's distributed by Gamma Aerial Products from Lye in the West Midlands. We're not sure if it's as good as you claim - as yet we haven't tested one, but watch out we're likely to do a test pretty soon. Anyway, the number to ring if you want to find out more about the Avenger is Lye 891132.

Finally on the where-the-blazes-can-I-get-one front comes a letter from Euan Harry of South Glamorgan.

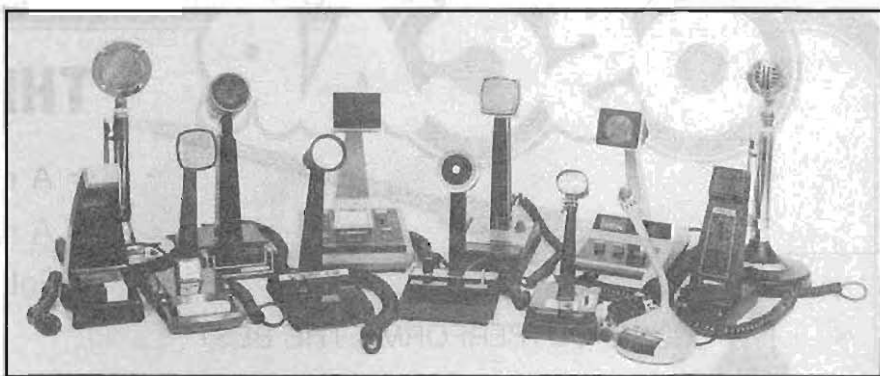
**Q** I'm looking for a Cherokee 60in Warrior Centre Loaded mobile antenna. Can you point me in the right direction?

**A** Once again we're only too pleased to say 'Yes, we can point you in the right direction'. The people you want to talk to are Telecomms, those ever so nice chaps in Portsmouth. Their address is 189 London Road, North End, Portsmouth, Tel (0705) 662145.

'Hi Smart Alec' says Chris Walling of Garston, Liverpool. He's been looking at our checklist and noticed a couple of mistakes. . .

**Q** I have three little problems for you. Number One is probably your mistake. I am confused because in your mag it says in the reference section that the Wagner TC 9000 has no squelch, NB/ANL or Channel 9 switch. But in an advert for the rig in the same issue it mentions all of the controls above. Who is right? You or the advert?

Question number two is, in the reference section it says that Halfords sell a rig called HP940. But when I went to Halfords they said they did not stock it, but they had a rig named HB940 with the same controls etc. Do you mean HB940 in the checklist? Last and not least - Question number three. In the January issue you say in the reference section that the TRC 1001 is £119 but in the March issue it says £59. Going back to the issue before it says £119. Who is right this time?



Can power mikes harm a rig?

**A** This is the part where I get on my knees and cry something about reference sections being awfully difficult to put together and the staff on the magazine work awfully hard at them but, alas, mistakes are bound to occur because of the sheer number of facts we deal with.

But, to put the record straight, here are the answers to your questions. In question one the advert is correct - some of the blobs on our checklist seem to have gone astray. In question two you are also correct. The listing should read HB940. Sorry for misleading you.

Now, with question three you must understand that all prices given in the checklist are only guides. The price of rigs has fallen sharply since the Tandy TRC 1001 was first put in and it might well sell at £59 in some areas. The best idea is to shop around.

Finally there's a quick query from P

Chapman of Hartlepool. He's a little concerned about his power mike. . .

**Q** I've bought a Densai DM-313P power mike which I use with my Midland 2001 rig. But since buying it I have been told that in time it will do a great deal of harm to my rig - possibly ruining it completely. Is this true or just a rumour?

**A** Installing a Densai DM-313P, or any other power mike, to an FM set will do no harm because the sets have a cut-off to prevent damage. **SA**

Well, that's it again for this month. Let's keep those questions coming in.

Problems should be sent to  
CB Q & A, Citizens' Band  
145 Charing Cross Road  
London WC2H 0EE

Andrew Crimlis asks if we can find a British distributor of Pan products.



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FM Superkrunch(es). I enclose cheque/money order for £36.00 (inc. of p&p) for each ordered. OR pay by Access/Barclaycard, write

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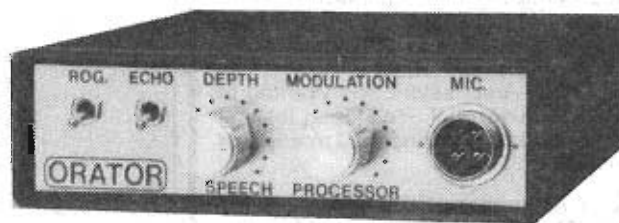
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# LADY BREAKERS



**Philadelphia Judd, our very own lady breaker, has been out and about in her Mini. But all was not well. Here Philly tells all in a cautionary CB tale . . .**

**P**hiladelphia Judd is here once again to raise the tone and bring sunshine and light to your lives. Rudely nicknamed the Pansy Potter of the airwaves by persons who shall remain nameless, I have nevertheless been out and about roaming the byways on your behalf, seeking sensation, nosing out hot stories — and ending up nose down in a ditch. There I was, concentrating on the burning issues of CB today, and there was this dog . . .

Talking of growling men, which I wasn't I must mention the inadvisability of allowing a stranger to get an eyeball on you. That is, allowing a breaker you do not know to match the voice he can hear on his radio to you in your car. Put like that, it may have sounded a bit fatuous, but I did have a reason for saying it and it might be a good idea to come clean and tell you the story behind that particular piece of advice.

It was a dark and stormy night — er, it was quite late, and windy, although there was plenty of moonlight, and I was driving home across a wide expanse of common. It's one of those rather desolate commons, flat with the occasional tree to break the monotony and very few houses. I have never liked driving across it at night, but that particular night I was feeling a little jumpy. Ever since I had turned onto the common, there had been a faint glimpse of headlights behind me, some way back, never coming nearer and never vanishing completely. It was almost as if the driver was taking care to match my pace. There was nothing in that of course, but all the same, I found myself looking over my shoulder too often. I was tuned into Channel 14 in the hope of picking up a friendly voice, and then suddenly there was a voice. 'What a rotten bloody night', it said disgustedly. 'Anyone out there for a copy?' It was a male voice, quite unremarkable, but certainly no one I knew. I kept quiet. Then there was this sudden glare in my mirror as the car behind put on speed, and the voice said. 'Hey, mini up ahead. You on?' My antenna had obviously given me away, as I was pretty sure it was the driver behind speaking. His voice was very clear. I dithered, but it somehow seemed downright unfriendly not to reply. After all, why not? What on earth did I think could happen?

It's easy now, sitting curled up by the fire in the nice safe warmth, to look back and think, what an idiot. I wasn't very happy, never mind why, and I should have kept quiet — better still, switched off. But I said, 'Hello, there. Who am I speaking to?' Silence. When the voice eventually spoke again, it

had subtly altered in tone.

'You've got the Loon, darlin'', it said, leeringly. At least, I could picture him leering. 'Now there's a nice friendly voice on a dark cold night. 'Where're you going, mini lady?'

Well, I'm not a complete moron. No way was I going to say where I was going. In fact, no way was I going to continue with the conversation. But having made contact in that way, there is another thing you have to look out for; you don't want to be seen as any sort of challenge. It's a strange thing, but some men see any sort of rejection as an invitation to give chase, and this particular lad sounded all set for a cosy bit of harrasment. I may have read it all wrong, but it's always best not to allow anyone the benefit of the doubt. So I put on my best imitation of a hard-bitten worldly-wise female with better fish to fry and told him to push off. Then I switched off altogether, determined not to get caught up in a war of words. Very soon after that, to my relief, the headlights fell back and disappeared. Well handled, Philly my girl, I congratulated myself, and after a few miles, and a few turns, I switched on again, just to prove to myself how difficult I was to frighten. And there was his voice, filling the car. 'Don't be unfriendly', he was grumbling, 'c'mon mini lady, tell me your name. Are you there?' And he just went on and on. It really was quite unnerving, especially as I now had no idea at all where he was, and I was quite convinced I was going to run into him any second. I think that any combination of darkness, loneliness, a remote spot, late hour, a strange car following and a strange voice on the rig can lead you to lose your sense of proportion and maybe worry you into doing the unwise thing. Needless to say, I switched off immediately, and ten minutes later I was safe home. Nothing had happened and I managed to laugh at myself for a fool, but I felt weak at the knees.

An experience like that, although unpleasant, can be quite useful for a novice since a lot can be learned from it. I have never allowed a stranger to get an eyeball on me like that again. I have also wondered what might have happened if he had persisted in following me, and I think if I hadn't been so close to home I might well have been panicked into diving down a side lane to try and shake him off. That would of course have been most unwise; in such a situation, you should stick to the main road if already on it, especially if you don't know the area, and stay where there are lights and traffic and a good chance of getting help fast, if you need it, via CB.

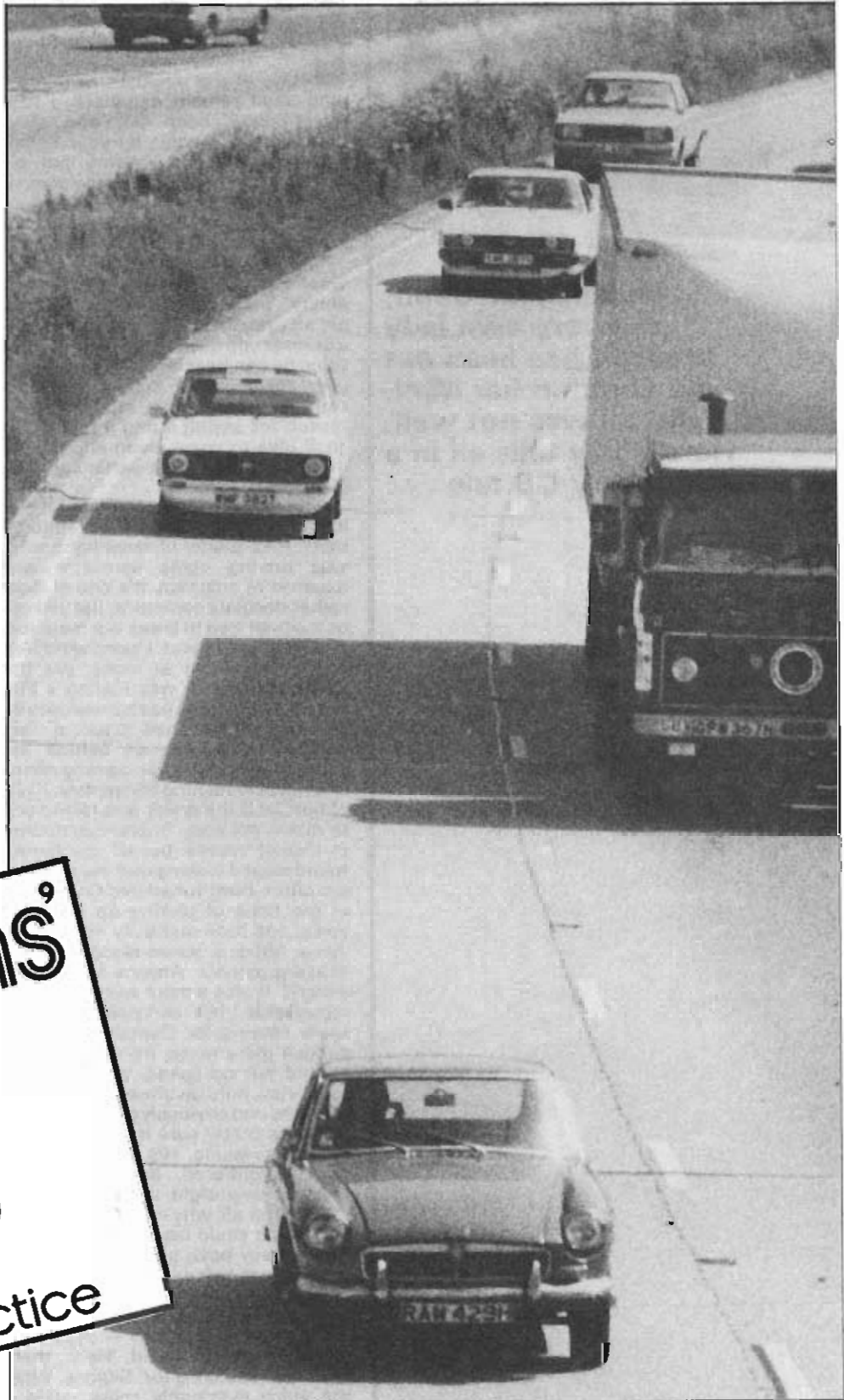
**CB**

# Citizens' Band Radio

## Code of Practice

The CB Code Of Practice was drawn up to ensure that CB users would obtain the best possible use from the service. It is a simple enough code to follow and, fortunately, most CBers do just that. Some breakers ignore it completely and by so doing make the service unusable in some areas. Traffic information for instance . . .

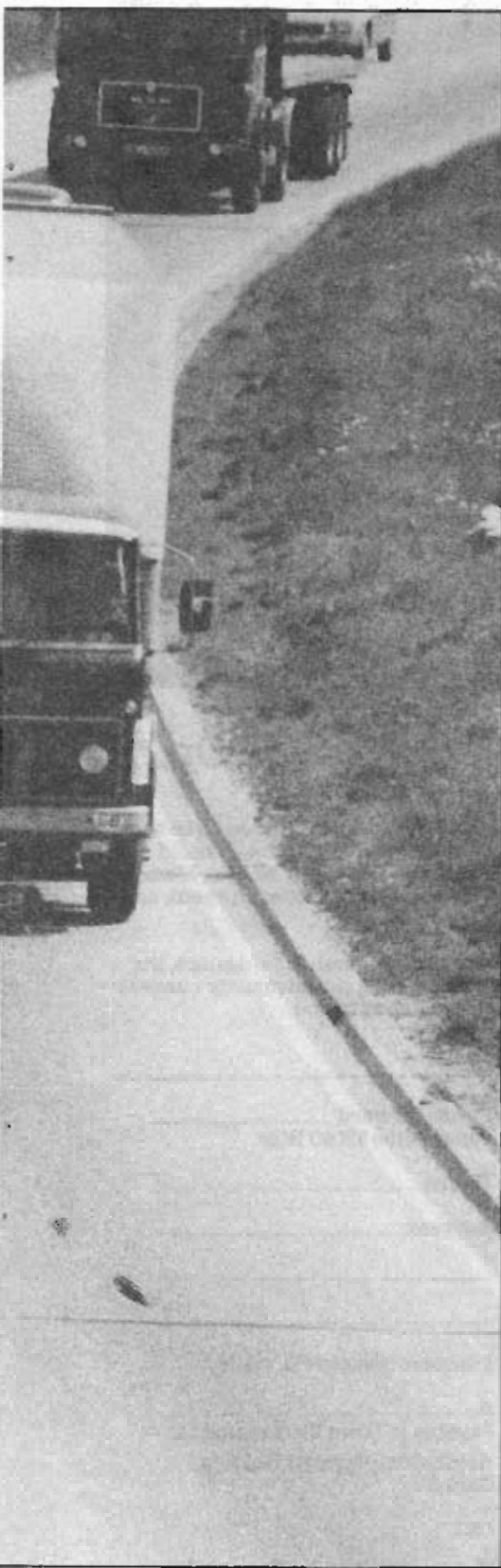
# Breakin



Citizens'  
Band  
Radio  
Code of Practice



# g The Code



In one area, on the edge of one of the country's larger cities is a group of CB enthusiasts who spend most of their spare time answering requests, on channel 19, from lorry drivers who are making their way into the city. Often tired after a long haul the drivers simply want to know either the general traffic conditions ahead of them on their approach road or, in some cases, to actually find the best road for them in order to reach their destination — and a hot cup of coffee — with the minimum of fuss.

The result of gaining this information is faster moving traffic and fewer tailbacks. The result of this is that everybody gets to where they are going in reasonable temper and with calmer nerves.

**“Keep conversations short when the channels are busy so that everyone has a fair share”**

On the whole it would seem to be a pretty good idea for all concerned and the CBers who give up their time to provide this service should be applauded. Applauded not only by the lorry drivers but also by the motorist who, upon hearing the information, may well be in a better position than the lorry driver to change a route, thus, enabling him to return to the bosom of his family at a reasonable time and in a cheerful frame of mind.

A worthwhile service performed well in many areas and a service that you would think it impossible to take exception to. Not so . . .

The problem seems to be that once such a service is set up and is successful, somebody somewhere will decide that it is an ideal target for disruption. This is exactly what has happened to the group concerned.

Their traffic information service was successful and well used by the big lorries pouring into the city. Drivers and motorists were pleased with the results and the band of monitors, spread over a fairly large area, grew. The information that they gave out was reliable and welcomed.

An added bonus was the fact that if there was a large traffic hold up caused either by an accident or road works the monitors stayed on the air for much longer than the usual rush hour period. Similarly, at bank or public holidays when the traffic volume increased by considerably, the monitors would again give time in an

effort to ensure a smooth traffic flow.

As has so often happened with channel 9 — where the few insist that they have the right to modulate at whatever the cost — so now they have turned their attention to channel 19 and to the group who were performing a valuable service to general road users and to heavy goods traffic in particular.

Dead keying and music, the usual and expected forms of disruption, finally closed the monitoring station down. Other stations in various parts of the country faced with similar disruptions have been forced to consider whether or not the aggravation is worth the effort of keeping their services running.

It is all such a pity and a terrible waste of energy and goodwill. Referring the disruptors to the CB Code of Practice will have little or no effect on the adults who pursue this path. They are fully aware of the results of their actions and the written word on a piece of pale blue paper will have no effect whatsoever. It is their enjoyment and, until they get bored or find another hobby, will continue their activities. Big trouble here is that when they have had their feast of fun somebody else that way inclined will come along and discover the delights of annoying people.

The only area where the Code will have some effect is in the case of the new younger users. Easily influenced by the actions of adults they may not be fully aware of their responsibilities regarding the use of CB radios and in that case it is up to the parents to see that the CB is not treated like a toy.

**“Give priority to the use of channel 19 to long distance drivers to whom it can be an important part of their way of life”**

Traffic monitors and information centres may well throw in the towel and close their stations down and who can blame them? It is an ongoing problem and one that is unlikely to go away for some time to come.

For those that may be interested the Code Of Practice is available from your local Post Office — free of charge. Although it is a slight document and lacks the teeth of the law it is well worth a read, especially by those parents who have bought or are thinking of buying a CB radio for their children.

**CB**

# In a class of its own



What Practical Wireless said about the TX40

- This month's CB Rig Check covers three mobile transceivers, two of which are very similar. The third rig is one of the first from a recognised amateur source in the UK.
- The Lowe model was also well made and was a creditable performer.
- Receiver sensitivity of the Lowe was much better than the other two rigs.
- The Lowe TX40 has the microphone socket on the front panel. Obviously Lowe's amateur experience has rubbed off on their CB rig as the mic socket is of the metal bodied screwed ring type as opposed to the more commonly fitted DIN types.
- The handbooks supplied with each rig were adequate. Lowe's being the best giving the operator information on installation and antenna fitting as well as full operating instructions.

## Only £29.50 + £3.00p.p.

First for Quality, Power, and Price the TX40 from Lowe Electronics has to be the best CB offer yet, whether you are buying your first rig or upgrading your old one. The TX40 has been proven as one of the most reliable rigs available. Made for us in Japan by one of the largest manufacturers of electronic equipment, and available only direct from Lowe Electronics.

Being backed by the UK's largest and most respected amateur radio dealers, the TX40 has years of experience behind the design. Each rig is individually checked by one of our skilled technicians before being despatched to you.

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# Lowe Electronics

Chesterfield Road, Matlock, Derbyshire DE4 5LE  
Telephone 0629 2817, 430, 4057, 4995. Telex 377482



**Medicman Mike Newbold opens his QSL cupboard, thousands and thousands of brightly-coloured cards spill out. Picking up a few he turns to his typewriter, 'I must tell the CB readers about these' he mutters. . .**

# COMMUNICATION THE QSL WAY

**H**ello again, and welcome to another 'Communication the QSL way! There has been an overwhelming response to our column, some 650 letters last month, so you see it is impossible to include everyone, although we will do our best — we will have to persuade our new Editor Kevin to let us have more space! Well off we go with lots of news from the clubs — our old friend **Chris Darlington** of the **HAPPY COBBER INTERNATIONAL DX QSL GROUP**, 51, Southolme Court, Northampton writes to let us know he is currently producing some twelve thousand custom QSL cards in full colour, and informs us that should any readers of this column like to see samples then upon receipt of a stamped addressed envelope he will be pleased to send some with a price list. These are really good quality colour cards, reasonably priced and well produced. Chris also tells us of some special arrangements for Club Presidents in the way of Rubber Stamps, and club stickers, so get in touch and liven your membership packages up!

Heard from our regular **Mick Marks**, boss-man extraordinaire of the **ANGLO AMERICAN INTERNATIONAL SIDEBANDERS** of P.O. Box 13, Newquay, Cornwall TR7 2NQ who sent us a copy of the new DX/QSL Manual put out by the club, a really excellent book packed with essential information to DXers and QSLers alike, yours for a meagre £1.70 including postage. Mick also tells us that he has taken the Presidency of the **FISTRAL BAY DX-QSL CLUB** under his wing as **Dave Griff** who ran the club had to give it up due to poor health, so Mick is incorporating it with the **ANGLO-AMERICAN**, and will issue a free FB Unit Number to all existing AA members for the price of a large SAE. The Anglo American has also just affiliated with the **COBRA OPERATORS CLUB**, and to celebrate the occasion Mick has produced a

superb joint club rubber stamp, this must be the Number 1 Club in the Country now. News in of another club — **THE TIGER INTERNATIONAL QSL SWAP CLUB** run by Paul of 57, Mikado Street, Penygraig, Tonypany, Mid Glamorgan, South Wales, who promises that this will not be another run-of-the-mill Club that fades away, and from the initial Press-Release it looks like they might live up to their promise, especially as they already have a superb **SUNDOWN** custom club card ready, drop Paul a SAE for details of the club. Heard from **Des Currie** whose name should be familiar to you by now — he is the QSL Printing Specialist of 89, Derwent Street, Blackhill, Consett, Co Durham DH8 8LT, Des has now named his QSL cards '**RAINBOW SERIES**', and they have already become a collectors item in their own right. Des informs us that they have started the **GREAT BRITISH QSL DX CLUB**, and a QSL sent to Des will be answered with full details of the Club plus some of their own QSL cards.

## Scots swappers

Nice to hear again from **Ian C Bain**, Vice President of the **FLOWER OF SCOTLAND CARD SWAPPERS**, Ian agrees that quite a few of the QSLers we mention are top of his list of contacts, and mentions in particular, **John Thorougoud**, **Paul** and **Linda Jukes** and **Malcolm Fisher** from County Donegal — all super contacts who should be familiar with those mature QSLers out there! Ian welcomes all QSLs, and if you enclose a SAE, he will send you details of the **FLOWER OF SCOTLAND CARD SWAPPERS**, his address is 239, North Balnagask Road, Torry, Aberdeen AB1 4LH, Scotland.

When we started this QSL column earlier this year we gave a mention to a QSLer with the handle **MERMAID** of P.O. Box 77, 8500 Grenna, Denmark, the owner of the handle is





Mr Per Kim Hardysoe, and he has formed the MERMAID QSL-DX CLUB, and will reply to all QSLs, or will send a complete membership package for just £3.00 — if you are going to send money do not forget to wrap it well in paper, enclose your name and address, and above all — REGISTER IT.

### Fareham enough

A huge QSL package arrived from Steve DAYDREAMER of 9, Sunningdale Road, Porchester, Fareham, Hampshire PO16 9PD, President of the SAXON SLIPPERS who have already some 150 members in the first few months of operation and offers a good club package with a nice large rubber stamp and lots of QSL goodies for £7.00 — again full details will be sent upon receipt of a SAE. Last new club mention this month goes to Ali Macleod, who together with Carol Mackenzie has formed the OUTER HEBRIDIES DX SWAP CLUB, P.O. Box 11, Stornoway, Isle of Lewis, Scotland PA87 2AA., membership is just £3.00 or full details in return for your QSL. Down to the regular QSLs now, first out of the bag is from Dave and Bobbie (that's his wife) Buckingham, alias LEADFOOT and LADY MOONDUST respectively, sending some of the exquisite gold-blocked QSL cards produced by my super-friend Wendy of Ensign Cards (Telephone 0543 378001 for full details), these really are magnificent QSLs which are a MUST for any serious collector. Ian Macdonald, President of the INDIA MIKE DX-QSL Club writes from P.O. Box 7, Falmouth, Cornwall, and

encloses some good quality QSLs, including his own personal DIRTY DOODLER card he had designed and printed in the USA. Ian tells us he formed the INDIA MIKE in July 1982, and currently has 250 members, and he would like to QSL anyone at all who would like a 1-4-1 swap. I don't know who started the rumour that I collect beer mats but a high pile arrived on my desk from Andy BRAVO ALPHA 112 of 35, Rowan Drive, Brasside, County Durham DH1 5YE, thanks for all the mats Andy, but whilst I do not collect them I do know of a young lad who does, so I have passed them on to a good home for you. did like your Club card of the BRAVO ALPHA PIRATES INTERNATIONAL SIDEBAND CLUB though, don't think I've heard of this one before. Andy QSLs 100%, and looks forward to a good swap with you. Heard from THE MEKON alias Alf Jackson of 15, Coaster Steps, Southend on Sea Essex SS1 2ST, he QSLs with some club cards from the ENGLISH LAKES QSL CLUB, THE HAM INTERNATIONAL OWNERS CLUB and THE INDEPENDENT DX GROUP, and some of his own personal cards, printed by Des Currie and one of Ensigns Gold-Blocked QSLs, a good swap this one!

### Taking the Michigan

Big air mail pack in from Gus and Ella of P.O. Box 54, Byron Centre, Michigan 49315, USA, quite a pile of cards, tourist information, some picture postcards (a must for overseas contacts) and some invitations to other clubs. Among these invitations was one for THE SWAGMAN QSL SWAP

CLUB OF AUSTRALIA, and as I know of many QSLers who sent money months ago and are still waiting for a reply I suggest that you destroy any Membership Applications for this club until such time as their President Garry Morosoff, last heard of some 9 months ago gets around to answering my six letters and refunds some of our QSLers money sent over there in good faith. From a real QSL 'Nut' comes a sorry tale of woe, not only content with being a member of SUPER STINKY QSL CLUB, HAPPY COBBLERS, ANGLO AMERICAN, DORSET KNIGHTS, DRAGONRIDERS, BRITISH CONCORDE INTERNATIONAL, PAPA BRAVO and CHAT BOTTE DX CLUB and a host of others this poor individual called DUNCAN WHARTON of 30, North Street, Strichen, Fraserburgh, Aberdeenshire AB4 4SX used to be a normal individual, a few evenings out each week, some brown bottles, then he caught the dreaded QSL Bug, now he just sits at home and spends all his money on QSL cards and postage, all he ever sees is his four bedroom walls, take pity on this poor lad — drop him your QSL to lighten up his miserable existence — and be warned — it could happen to you! Seriously he loves it, and QSLs 1-4-1.

Ray McKelvey of P.O. Box 536, Ellettsville, Indiana 47429, USA, QSLs with some colourful cards, he is founder of the AMERICAN MODULATORS RADIO CLUB, and sends details out with all his QSLs, a good way to start some USA contacts send Ray a pile of your QSLs, don't forget to sign and date them, and he will circulate them for you. By sheer

co-incident the next QSL off the pile was from **Gwyn Williams of Wanllys, Llanerchymedd, Anglesey, Gwynedd LL71 8EG** who in fact is the first British member we have heard of to join the **AMERICAN MODULATORS**, I think it's always nice to see some world-wide rubber stamps on QSLs, I think it shows a QSLer has a deeper than average interest in our hobby. Gwyn is a member of the **Anglesey RADIO 27 CLUB**, and QSLs with the Club Card — a must for Club Card theme collectors. From Nick Major **CONGER EEL of 2, Stapledon Lane, Ashburton, Devon TQ13 7AE** comes a plea for the address of the **GREEN-PEACE QSL CLUB** well Nick, a browse through our bulging card index tells us their address is **P.O. Box 33, 8855ZM Sexbierum, Netherlands**, and their Club frequency is **27.705 USB**, so we hope that answers your question. Last QSL this month is from **John Hyett of P.O. Box 19, Sudbury, Suffolk CO10 0EB** who sends a pile of his new **ORCHID MAN QSLs**, some nice cards John, pleased to see you are a member of **BRITISH CONCORDE, ANGLO AMERICAN** and **DRAGON-RIDER**.

Well that's it for another month, thanks once again for all your cards, we do try to include as many as possible, but through sheer numbers cannot include you all, so if you aren't lucky the first time, keep trying. Next month we will start to give you some QSL lists and useful information, and news of a special rubber stamp!

If you would like a mention QSL to **Mike Newbold THE MEDICMAN at 124, Hillcross Avenue, Morden, Surrey SM4 4EG**, and we will do our best to include your QSL. I'm off now to pack my bags for a well-earned holiday, but fear not I'll be back in time for next issue, until then, **TAKE CARE — WE CARE!**

### QSL Club Of The Month:

**THE SUPER STINKY QSL SWAP CLUB**, Postfach 2664, D 6750 Kaiserslautern, WEST GERMANY.

The **SUPER STINKY QSL SWAP CLUB** must be rated one of the leading QSL Clubs of the world, certainly the Top QSL Club in Europe. Its popularity is due to the enthusiastic administration of the Club by its President and Founder **HARRY W HERTZ**, who established the Club in July 1978, and has put every effort into building the Club into a very creditable organisation with membership currently in excess of 1600 members from over 80 nations throughout the World, a remarkable achievement by any standard.

Harry himself belongs to over 300 world-wide **C8/QSL/HAM/SWL** clubs and has put this first hand experience to work in running this first-class club very efficiently. An unbelievably excellent membership package is offered for 12 Dollars.



about £8 Sterling, plus twenty of your own signed and dated QSL cards, and for this sum you can expect to receive:-

- 1) An equal number of different members QSL cards, plus some **SUPER STINKY CLUB CARDS**, and some of the President's personal cards.
- 2) A beautiful multi-coloured membership Certificate.
- 3) An official **SUPER STINKY** unit number, recognisable world-wide.
- 4) A personal wallet-size I.D card.
- 5) Tourist information for overseas members
- 6) A super Club rubber stamp, fully mounted
- 7) A **SUPER-STINKY** mini-button badge
- 8) Club information pack, including invitations to other clubs.
- 9) Miscellaneous other items as available.

Other extras available to **SUPER-STINKY CLUB** members only, include:- Full Club membership roster (addresses of 1,100 members) Club emblem adhesive stickers Embroidered Club Crest in 7 colours Extra Club rubber stamp Club QSL Cards Super Stinky medal

Currently the club has six different QSL cards to choose from, from the well-known 'Sundown' Series to superbly coloured flags and crests of Germany, all available to members, either plain or personalised. Normally after joining a QSL club, that is the last you ever hear, **SUPER STINKY** is different, Harry issues frequent Newsletters and updates the Membership Roster, and these can be had just for the cost of the postage, a really nice touch.

**SUPER STINKY** is a five-star top-of-the-league Club and comes highly recommended.



### Citizens' Band Magazine List of New QSL Contacts

**TERRY (Silver Tiger)**

**WILLIAM SHOLL (Anchor Man)**  
**STEPHEN (Rangerman)**

**BRENDA FILES (Pisces)**

**MARVIS STEELE (Crazy Annie)**  
**MAC BRADEN (Cockney Rebel)**  
**PATRICK O'NEILL (Jug Ears)**

**KARI BROADIE (Blue Tiger)**

**ANDREW POWELL (1-ACP)**

P.O. Box 26, Fareham, Hampshire PO14 1PJ  
'Bramber' Kingston, Nr Lewes, East Sussex BN7 3JZ  
42, Cartmel Crescent, Tonge Moor, Bolton BL2 2NQ  
5, Marylands Green, Chiselhampton, Oxford OX9 7XD

1920 Avenue P, Lubbock, Tx 79405, USA  
Dromodmore, Dromod P.O., Co. Leitrim, Ireland  
329 Simmons Drive, Woodgate Valley, Birmingham B32 2UH.

135, Durward Rise, Dedridge, Livingston, West Lothian, Scotland.  
P.O. Box 21, Blackwood, Gwent, South Wales

**GEOFF HOWLETT (Reckless Rat)**

**TONY DESMET (Woodpecker)**  
**NICK BARTON (Tiger Tank)**  
**JOHN (Grasshopper)**

**DON E BLAKE (Bull Rider)**

**ARTHUR BRODEUR (Golden Eagle)**

**JOHN (Juliet Sierra)**

**ANDY RAMSAY (Little Trucker)**  
**JACK PENNY (Buffalo)**

17, Blaydes Street, Haworth Street, Hull HU6 7RE, East Yorkshire  
Coebergstraat 28, 2000, Antwerpen, Belgium  
110, Rock Avenue, Gillingham, Kent.

9, Blackthorn Crescent, Hazel Slaed, Cannock, Staffs  
Rt 1, Box 226, Cherryvale, Kansas 67335, U.S.A.  
6 Mt St Charles Avenue, Woonsocket, Rhode Island 02895, U.S.A.

Mitropoleos 13, Veria, Greece.  
Chamissostrasse 12, 1000 Berlin 20, West Germany  
7, Hall Street, Ashton Under Lyne, OL6 6SD

# C.B.?



## RIGS



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# TWONG

JOHN RICHARDSON



HAW! LOOKIT OUR HERO! HE HAUVIN' FORTY SQUINTS! HE HAUVIN' A GODLY NAP! HE SO PEACEFUL! HE SO CUTE! ALSO HE SLEEPIN' ONE OFF!!



LEDDY!  
FARP!  
GREETIN'S  
FAR OUT!  
TOOT!  
BEEP!  
MC GO!  
C'YOU  
OYK!  
ARGH!

GRASH! SOME INNOCENT C.B.'ERS ARE HAUVIN' A BIG EYEBALL AS 'CRUISE! THEY HAUVIN' IT AROUND TWONG'S KHAZI! DO THEY NOT KNOW THAT THE YOUNG GODLING LIVES THERE? DO THEY NOT KNOW HE HAUVIN' HIS HEAD DOWN? DO THEY NOT KNOW HE DUT OF HIS TREE...??



HONK  
BARP  
TOOT  
BEEP  
GRAN! TWONG VERRY! TWONG NOT LIKE NASTY HORSELESS CHARIOTS GOIN' HOOT AN' BEEP AN' SPOLLIN' TWONG'S KIP!!



... THEY DO NOW!!  
KREEGAHH!!  
TRUMP TRUMP



GOOD GRIEF!  
TWONGS ARE CAPTURED TALKING LANKES AN' ADAMS APPLIES OFF HORSELESS CHARIOTS  
TWONG MARNIF'CENT!  
HOH  
PLUKK!



YOU'VE DONE IT AGAIN!! YOU'VE DESTROYED THE FAITH OF ANOTHER BUNCH OF C.B.'ERS, AN' PUT 'EM OFF C.B. FOR LIFE! HOW COME YOU'RE SUCH AN EXPERT AT COCKIN' THINGS UP, EH? HOW COME? EH? EH?!



HE PRACTICE!



BEIDES, ME NEEDED THE BITS TO FINISH HORSELESS-TYPE CHARIOT! NOW ME IMPRESS LITTLE MORTAL TYPE FANS!!



TWONG PUSH THE STARTER AN' GO ROUND UP FANS FOR BIG C.B. CRUISE-TYPE CONVOY! TWONGS BRILL!  
AN EXHAUST MIGHT HELP.  
AN' ROAD TRAX..  
..INSURANCE..  
..A ROAD MAP..  
..MEBBE A FEW FANS..  
OR EVEN A...



GAA ROO GAAHH!  
GAA ROO GAAHH!  
BUMF  
... FIRE EXTINGUISHER!



WHEN IT COMES TO EYE-BALLIN', DU' TWONG IS HOT STUFF AT CRUISES!  
CRUISE?  
CONVOY!  
LOOKS LIKE A BAD BURDE FEED!  
BURN! MY FINGER IS BURNU!  
WHAT COOKIN'!  
HEY! LONN'T THE BURNU' LOONNY!  
CALL UP THE BOYS: THEY WIDN' WANT TO MISS THIS!  
DOW' WORRY CHARLIE! I GOT SOME PETROL!

# Rig Review



Is British best? Chris Peterson investigates another new homegrown rig, the Mercury, to find out.

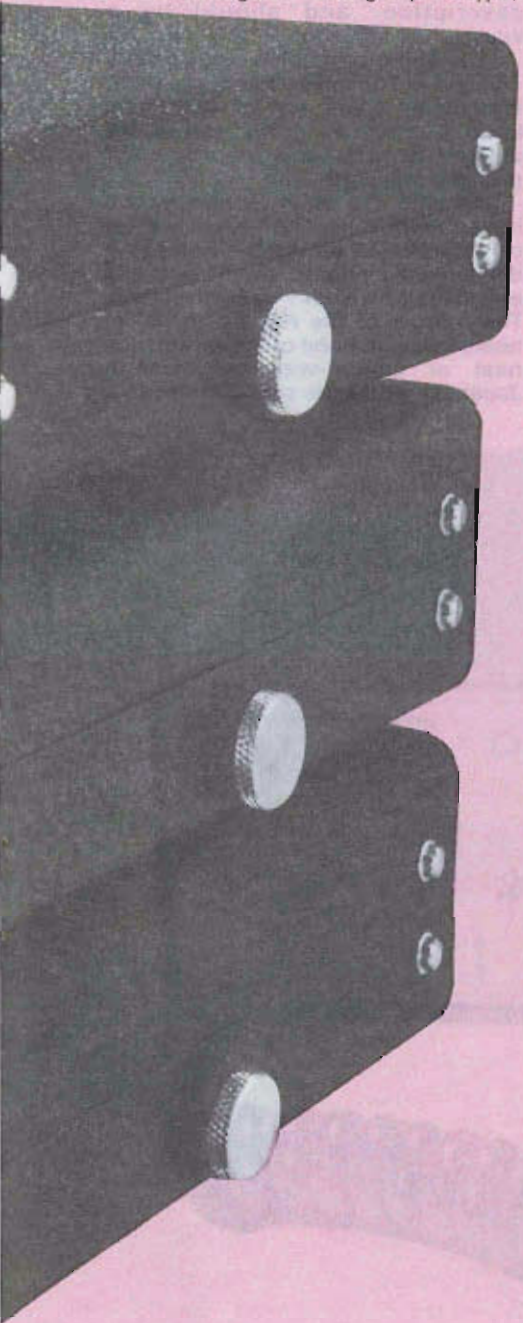
# MAGICAL MERCURY?





**A** couple of months ago we looked at the first all-British rig on the market, and we have now received a second. The Mercury 1040 is made by Electro-Medical Supplies of Wantage. EMS have been around since 1924, so unlike some other CB suppliers, they are not a 'here today, gone tomorrow' operation. Their normal range of equipment is in the field of surgical and physiotherapy electronic equipment. Obviously equipment for these applications has to be designed and built to the highest standards, and it is no surprise to find that the 'build quality' of the Mercury rig matches this background.

It's funny how pictures can sometimes convey a totally false impression of appearance for no good reason. Having seen photos of the Mercury prior to receiving it, the rig turned out to be somewhat larger than we had imagined. Being a prototype,



ours arrived without the packaging normally associated with a rig. An instruction manual and all necessary mounting hardware were supplied. The rig feels very solid compared to its Oriental rivals. The sheet metal used to form the case is substantially thicker than that usually found in a CB rig. Unusually, the rig is available in a variety of colour schemes, so you should be able to find at least one to match your car's interior! Our sample had an attractive gold front panel and a brown crackle finish case. It has to be said that on our sample the crackle finish wasn't adhering too well to the metal, and was starting to flake off around the retaining screws after we had dismantled it and re-assembled it for inspection.

The rig measures 60mm high, 182mm wide, and 200mm deep, plus knobs and connectors. The front panel is clear evidence that the rig has been designed for the British market. Not only is the mike connector on the front panel, but it is also on the RIGHT! Starting however on the left hand end of the front panel, we find a large knob for the channel selector. Above it and slightly to the right is a large red LED channel indicator. Like most LED displays, this one suffers rather badly when exposed to sunlight! Next to the channel selector knob along the lower front panel are three more smaller knobs. These are, from left to right, Vol/off, squelch and RF gain. Next are two small toggle switches for PA/CB and the 10dB attenuator. On the extreme right is a standard four pin locking ring mike connector. At the top right is a combined signal strength/Tx power meter. This has a white pointer against a black background, and is more readable than some we could mention! Under the meter is a row of three LED indicators. From left to right these are Tx (red), PA (yellow), and Rx (green).

Moving round to the rear panel, there is a standard so-259 antenna connector and two 3.5mm jacks for extension and PA speakers. The fused power lead is permanently fixed to the rig and enters the rear panel by a strain relieving grommet. The speaker is at the rear of the lower case half facing downwards. A nice detail is the fitting of 'grippy' rubber feet to the bottom of the rig. You can put it on your sideboard without damaging the woodwork! If you put it on your car's parcel shelf they should reduce any tendency to slide about as well!

If the rig is larger than we expected, then the mike is just the opposite. It is one of the tiniest mikes we've yet encountered. This may be popular with the 'lady-breakers', but would probably find itself lost in a trucker's maw!!! It seemed quite strong, however, and produced good quality audio.

The mounting bracket supplied was again substantially thicker and heavier than contemporary mountings. It was finished in the same crackle finish brown as the rig.

The instruction manual supplied with our sample was a temporary

photocopy version. These will be properly produced versions when production starts in earnest. The instructions were clear and concise. The section on SWR gave good guidance, through refrained from being too specific. This is unavoidable due to the variety of SWR meters and antennas on the market. No circuit diagram is provided, but a block diagram is included. We would much rather see a full circuit diagram included, but EMS are extremely reluctant to release circuit details. A good feature is the section that draws attention to the legal requirements for the use of Public Address equipment. If you are going to provide this facility then it's as well to advise your customer on the legal position for the use of it! A trouble-shooting guide is included (good), and finally details of the international phonetic alphabet and the more common 10 codes.

The rig does not employ an isolated chassis, and is therefore unsuitable for use in positive earth vehicles without special precautions.

## Technicalities

This is a little more difficult than usual, as EMS declined to send us a circuit diagram. The block diagram in the handbook shows the overall picture, but at that sort of level most rigs are indistinguishable.

Starting with the synthesiser, this is a three-crystal circuit built around a Motorola MC145109 PLL circuit. This is a general purpose PLL rather than a dedicated device. Like Magpie, Mercury have avoided excessive reliance on Japanese semiconductor devices in crucial areas. However, the 145109 is a rather old-fashioned device, and we're rather surprised that EMS didn't choose one of Motorola's more recent PLL chips. The 145109 is a relatively low frequency device, and frequency multipliers and mixers are required to generate the necessary output frequencies. The three crystal approach does allow high side injection into the first mixer in the receiver. In other words the first local oscillator input is 10.695MHz above the desired receiver frequency rather than below it. This should offer improved image rejection, as the image frequency, being higher than 27MHz, will be attenuated by the transmitter's low-pass filter when receiving. Similarly, transmitter design parameters are more easily achieved. The PLL output has to be mixed with 10.695MHz to generate the correct Tx frequencies. Mixer transmitters are notorious for producing spurious outputs. Using high side injection, these spuri are made relatively high in frequency and can be readily removed by the transmitter low pass filter.

A master mixer running at an injection frequency of approx. 20.8MHz produces the final Tx/Rx frequencies. Thus band changing to European or Amateur frequencies can be simply achieved by changing this crystal and retuning.



The master and Tx mixers are both balanced integrated devices to further minimise spurious outputs. The ics used are TA7310s.

The transmit path appears to be a conventional three transistor RF strip using conventional bipolar silicon transistor technology. Similarly the receiver seems to employ simple BC 182 transistors throughout. There is no evidence of balanced mixers, or sophisticated FET devices anywhere to be found.

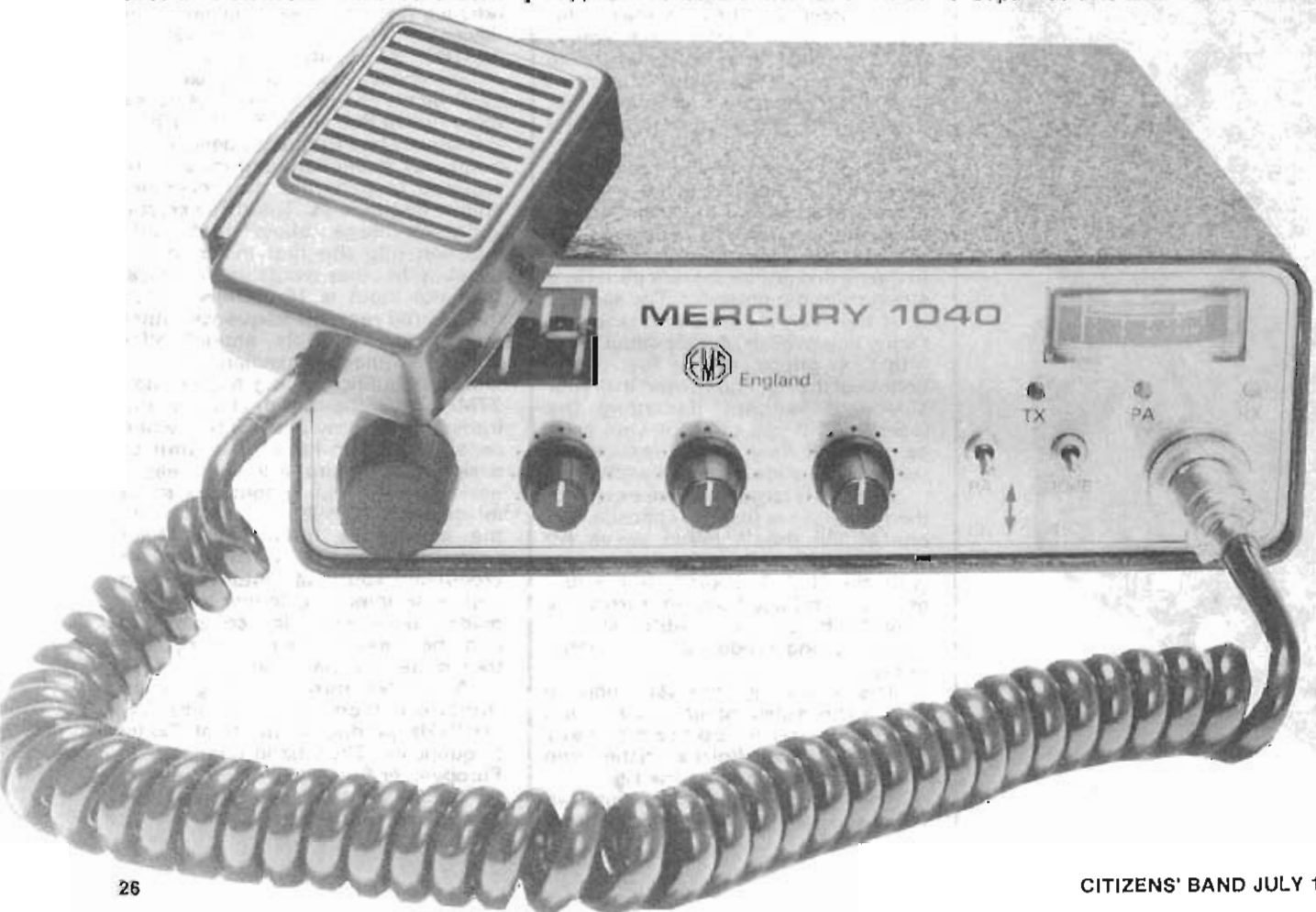
The receiver follows conventional double-superhet design practice. An RF amplifier feeds the first mixer which produces a first IF of 10.695MHz. A portion of the output of the first mixer is fed to a noise blanker circuit. A standard 'wide as a barn

door' ceramic roofing filter limits the first IF bandwidth before feeding a second mixer. The second mixer reduces the IF to 455KHz. Before filtering, the second IF is amplified, and it is at this stage that noise blanking is applied. Rather unusual this, as normal practice is to blank at audio levels. A block ceramic filter provides the necessary selectivity at this stage, and the second IF is then further amplified before being fed to the squelch, metering and detector stages. An AN240P ic is used as a limiting amp and quadrature detector. The squelch appears to be a simple level operated device, not the most satisfactory approach for an FM system. However the paperwork supplied makes mention of a 'noise

cruncher' that will be made available in the near future. This sounds as if it will be a noise squelch of some description, and should be a worthwhile addition.

The audio is handled by a Toshiba TA7205 ic. The mike circuit appears to incorporate some sort of Automatic Level Control, so power mikes are unlikely to achieve an improvement over the standard item.

As with the other British rig we have reviewed, the standard of construction is exceptionally high. A double-sided printed circuit board is employed with extensive earth planes. The interior of the rig is a model of neatness, with none of the wiring rat's nest or candle-wax common in Japanese sets to be seen. However, a



small add on board is mounted on the antenna connector. This is extra filtering, and although very neatly installed is obviously an after-thought!

Despite the relatively large case size, the internal speaker fitted is only average in size. With all that space available a larger unit could have been fitted, with a consequent improvement in audio 'punch' in noisy vehicles.

## Lab Results

The Mercury was run through our standard lab tests to establish compliance with the Home Office requirements. All measurements were taken at 13.8 volt supply.

At max RF gain, the receiver sensitivity was measured at 0.7 uV PD at 50 ohms impedance. S9 corresponded to a signal level of 20 uV PD. With the squelch turned fully up, our signal generator could not produce enough signal to open it!!! When the RF gain was turned down, the sensitivity was reduced to 1.1 uV PD. At this point neither an S9 meter reading nor an opening of the fully advanced squelch could be achieved.

These are very reasonable figures. The squelch is a very powerful control and should be able to cope with the most extreme skip conditions.

Moving on to the transmitter, the power output was measured at 3.3 watts. The 10dB attenuator reduced this by 9dB. The power was a bit on the low side, and the 10dB attenuator not quite in spec. However, these are simple adjustments to correct, and production models should be up to spec in this respect.

The harmonic content of the transmitter output was excellent. We were unable to detect ANY TRACE of spurious outputs from the transmitter. This means that the harmonics must have been better than 85dB down on the carrier level. This is considerably better than the regulations require, and makes the Mercury the cleanest transmitter we have yet tested! The individual channel frequencies were all within 310Hz of nominal, well inside the required limits.

Using the signal generator, the maximum deviation we could achieve was  $\pm 2.17$ KHz. By whistling loud into the mike (and into a dummy load!) a similar figure of  $\pm 2.1$ KHz was achieved. These are slightly in excess of the recommended figure of  $\pm 1$ KHz but within the 'never exceed' figure of  $\pm 2.5$ KHz.

All in all these were quite commendable results. The transmitter cleanliness is quite remarkable. Although one or two results are a bit borderline, they are within the 1dB tolerance usually applied to such measurements, and it must be remembered that this is a prototype rig.

## On The Air

The Mercury 1040 was used for a period of several weeks around the West London area. It was used as both a home-based and a mobile unit, and behaved faultlessly throughout.

Despite the apparently simple circuitry employed, the receiver behaved impeccably. There was no evidence of swamping of cross-modulation under even the most severe provocation. On busy nights and when coupled to an efficient home-base aerial, the background noise rose noticeably. Under these conditions, backing off the RF gain control a bit quietened down noticeably.

The squelch control is very powerful and needs careful adjustment for best operation. Being a level operated device it was not as satisfactory in operation as a pure noise squelch might be. However at the time of writing we are aware of no rigs currently available that use a pure noise squelch, and it is certainly no worse in this respect than any other rig we have tested.

The literature supplied with the rig mentioned a 'noise cruncher' that will be made available in the near future. From the description supplied this appears to be some sort of noise squelch. We suspect that fitting this unit will overcome any criticism of the standard squelch.

The audio quality both transmitted and received was excellent. However, in a noisy vehicle a larger external speaker is beneficial. Because of the slight over deviation in our sample, the modulation carried quite a punch. Most signal reports were very complimentary.

EMS will also be making a selective calling system available. Although intended primarily for Mercury rigs, they say that 'any competent radio engineer will have no difficulty fitting CatCall to almost any FM rig.' Sounds very interesting. CatCall allows the volume to be turned down to zero when awaiting a call, and on receipt of the correctly coded signal will automatically transmit back a brief acknowledgement buzz. We wait a sample eagerly.

Inevitably the Mercury 1040 is going to be compared to the other British rig, the Magpie. Both rigs are extremely well built internally, and are light-years ahead of the Japanese sets performance-wise. Unfortunately many people buy rigs on the basis of how good it looks, and the external standard of finish of both rigs is slightly down on Oriental standards. This is inevitable when the volumes of production are compared. Only very large volume production can finance the special tooling and mouldings that produce that little extra gloss to the finish. A lot will depend on exactly how the Mercury is priced. There is little to choose performance-wise between the two British contenders, but the Mercury does not offer the level of sophistication of the Magpie. If this is reflected in the price, then the Mercury can establish a very nice niche for itself between the better Japanese rigs and the super-sophisticated (and super-expensive!) Magpie.

The Mercury is well made, and offers excellent performance. It deserves to succeed.

GB

## RIG REVIEW DATA PANEL

Model Mercury 1040

Distributor EMS Communications

Typical Price

Features	Yes	No
PA Facility	<input checked="" type="radio"/>	<input type="radio"/>
External Speaker Jack	<input checked="" type="radio"/>	<input type="radio"/>
TX Indicator Light	<input checked="" type="radio"/>	<input type="radio"/>
RX Indicator Light	<input checked="" type="radio"/>	<input type="radio"/>
PA Indicator Light	<input checked="" type="radio"/>	<input type="radio"/>
S/Rf Meter LEDs	<input checked="" type="radio"/>	<input type="radio"/>
Hi/Lo Power Switch	<input checked="" type="radio"/>	<input type="radio"/>
ANL/NB Switch	<input type="radio"/>	<input checked="" type="radio"/>
CH9 Switch	<input type="radio"/>	<input checked="" type="radio"/>
Variable RF Gain	<input checked="" type="radio"/>	<input type="radio"/>
Mike Gain	<input type="radio"/>	<input checked="" type="radio"/>
Delta Tune	<input type="radio"/>	<input checked="" type="radio"/>
Tone Control	<input type="radio"/>	<input checked="" type="radio"/>
LED Channel Readout	<input checked="" type="radio"/>	<input type="radio"/>

Facilities	Superb	Good	Fair	Poor
Ease Of Controls	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Built In Speaker	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Microphone Location	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cabinet Construction	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality Of Control Switches	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Channel Indicator Readability	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mounting Bracket	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hand Book/Instructions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Specifications	
Modes Of Operation	FM Only
No. Of Channels	40
Weight	—
Dimensions	60x180x200mm
Supply Voltage	13.8
RF Output Power	3.3 watts
Frequency Stability	In Spec
Swamping	Excellent
Sensitivity (RX)	Good
Spurious Emissions	Excellent

## CB VERDICT

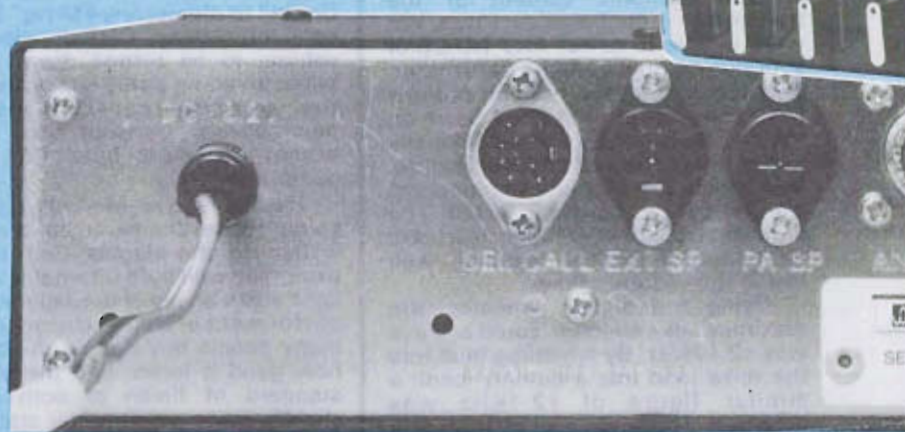
Range	XXXX
Clarity of TX	XXXXX
Clarity of RX	XXXX
Ease Of Controls	XXXX
Ease Of Installation	XXX
Performance	XXXX

We rate our samples on a scale of one to five. Five stars is the highest rating, three and four stars are good to average and one and two stars mean it's not doing so well.

# ON THE WAGNER



Brian W Wright is pleased to see more and more new rigs come onto the market. Here he looks at one of them, the Wagner TC-9000 . . .



**N**ow that the abnormally high demand for FM rigs is well over, it is pleasantly surprising to see so many new rigs and twigs arriving on the CB market. The ever increasing choice of rigs must confuse the new breaker and I suspect his choice is mainly influenced by price and appearance. With the increasingly busy channels and the difficulty in getting rigs repaired in some areas, this is not always the best method of choosing a rig, as many of you will know. However size and appearance will probably play a major part in your choice of rig and if some effort has been put into the outer

casing design and layout then the chances are that the circuitry may be as good. It helps a great deal if you can try a rig out before buying or if at least you know someone who has. Therefore, for those of you who like to take home something big for their money we have been trying out the Wagner TC-9000, from Knight Communications, for you this month.

The Wagner TC-9000 is a very professional looking rig with its 203x62mm all black front panel being filled with knobs and switches. The layout is both neat and functional and is divided into two main sections. Starting with the first section, at the

## RIG REVIEW DATA PANEL

**Model** Wagner TC-9000  
**Distributor** Knight Comms.  
**Typical Price** £59.95

Features	Yes	No
PA Facility	<input checked="" type="checkbox"/>	<input type="checkbox"/>
External Speaker Jack	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TX Indicator Light	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RX Indicator Light	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PA Indicator Light	<input checked="" type="checkbox"/>	<input type="checkbox"/>
S/RF Meter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hi/Lo Power Switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ANL/NB Switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH9 Switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Variable RF Gain	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mike Gain	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Delta Tune	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tone Control	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LED Channel Readout	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Facilities	Superb	Good	Fair	Poor
Ease Of Controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Built In Speaker	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Microphone Location	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cabinet Construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality Of Control Switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Channel Indicator Readability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mounting Bracket	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hand Book/Instructions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Specifications	
Modes Of Operation	FM only
No. Of Channels	40
Weight	1.85 Kgs
Dimensions	203(W)x62(H)x195mm(D)
Supply Voltage	13.2V
RF Output Power	4 watts
Frequency Stability	In spec
Swamping	Good
Sensitivity (RX)	Good
Spurious Emissions	In spec

### CB VERDICT

Range	XXXX
Clarity of TX	XXXX
Clarity of RX	XXXX
Ease Of Controls	XXXX
Ease Of Installation	XXXX
Performance	XXXX

**We rate our samples on a scale of one to five. Five stars is the highest rating, three and four stars are good to average and one and two stars mean it's not doing so well.**



top left is the large clear S-meter which is very easy to read with its white needle on a black background. The S-meter also indicates the modulation level when using the rig in the PA mode. To the right of the meter is the red LED channel indicator. Below the meter and channel indicator is a row of four flat, black, silver fronted knobs, these being volume/on/off, RF gain, squelch and delta tune. To the right of these and separating the two front panel sections, is the large channel selector knob in the same style as the smaller knobs.

The other section of the front panel consists of an LED TX indicator with a

similar PA indicator underneath. To the right of these are two push button switches, the first being for a spare accessory and the other a channel 9 priority switch. Below these LEDs and push buttons are three more push buttons — noise blanker on/off, TX attenuator, and CB/PA.

Unfortunately, as with too many rigs still, the mike socket is on the left side panel of the rig. What is surprising on a rig of this quality, the mike is fitted with a DIN plug, not the four pin type with a locking ring. On the rear panel is the usual SO 259 antenna socket, but the extension speaker socket and PA speaker socket are the one flat and one round pin type, as found on home hi-fi speakers and not the usual 3.5 mm jack sockets. There is also a 6 pin DIN socket on the rear panel for connection to a selective calling unit, although no connection details are given. The power lead enters the rig through a gripping type grommet instead of the normal plug.

Several features mentioned above are not found on the average rig and are worth pointing out. They are the delta tune, to enable tuning of slightly off frequency signals, the accessory switch (saves drilling a hole through the rig to fit a switch) and the Sell Call socket. The mounting bracket supplied is very sturdy and has the same black finish as the rig and a spare fuse is supplied along with the usual mike holder etc. The large instruction sheet has all of the required information and is quite clear although no circuit diagram is included, which is always useful for repairs or when fitting accessories.

The Wagner TC-9000 was tested mobile and homebase as receiver problems if any are usually more apparent when used on a high antenna in a busy location. No problems were encountered in using the TC-9000 over several weeks. Only very slight desensitising was noticed during busy times on a large homebase antenna. Modulation strength and clarity of TX were above average and the internal amplifier and speaker were very clear. The audio output of 3.5 Watts is more than is usual for FM rigs and volume was more than adequate. The squelch range was sufficient and operated satisfactorily. The mike is smart and well made and obviously works well from the good modulation reports that were received. A brief look inside the rig revealed a high quality of design and workmanship, with a large section well screened off inside of a metal box.

In conclusion the Wagner TC-9000 tested, seems to be a well-designed rig that does its job effectively, although a bit on the large side for a 40 channel rig. The only real criticism is the mike socket, although most breakers don't like DIN sockets, they are not too bad on the front panel, but being on the side they tend to work loose more easily, due to the side load when pulling on the mike lead. Priced at around £59.95 the TC-9000 represents good value for money as this is a good quality rig.

**CB**

## THE G.A.P. AVENGER

### Legal homebase Antenna

"The legal antenna that thinks it's a 1/2 wave"

The AVENGER will solve ALL your problems!

We have taken a base loaded legal radiator with a single "ground plane" threaded with coaxial cable through the "ground plane" and finally supported the antenna at it's base rather than at it's centre.

This gives us a new legal configuration that is bound to be accepted by all Breakers.

- \* The AVENGER is easy to fix, on a wall bracket or mast top.
- \* No ugly multiple ground plane radials.
- \* Cleverly end supported giving additional height.
- \* Minimum line current due to shielding of coax in the "ground plane".
- \* Impedance ... 50 ohms.

Could this be the ultimate in LEGAL antennas?? ... We think so!!

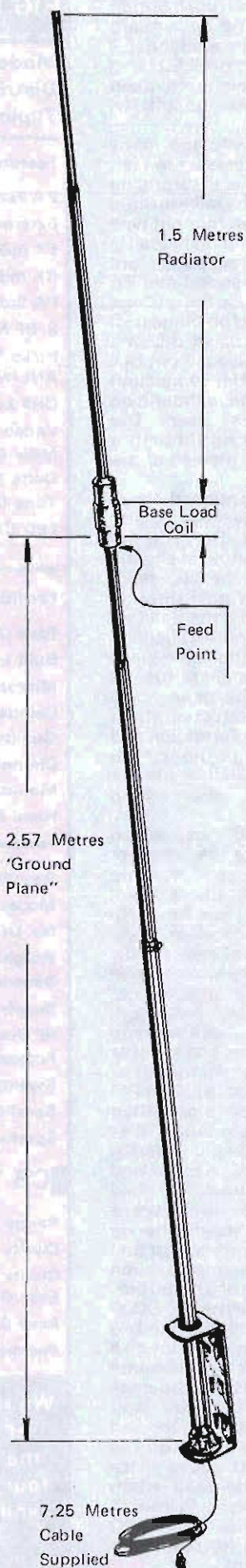
1983 Gamma Aerial Products Limited.

## Gamma Aerial Products

MANUFACTURERS OF  
AMATEUR RADIO  
& CB ANTENNAS

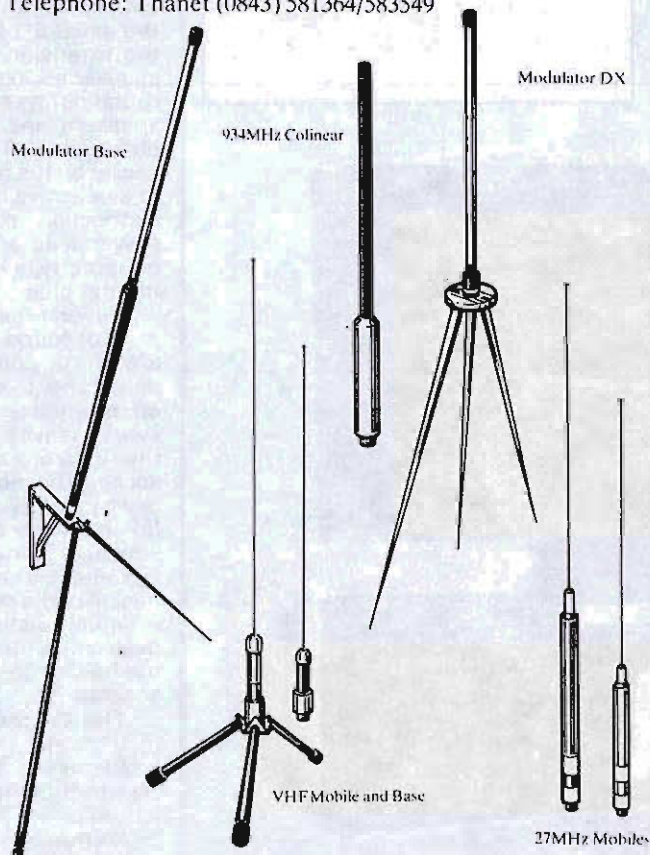
LYE, WEST MIDLANDS

TRADE ENQUIRIES  
TEL. LYE 891132



# Les Wallen Manufacturing

8, Alpha Road, Ramsgate, Kent.  
Telephone: Thanet (0843) 581364/583549



## High performance antennae

### Modulator DX

Latest antenna in the Les Wallen range, the Modulator DX has been proven to outperform many illegal antennae. But Modulator DX is legal, so now you don't have to break the law to DX.

### 27MHz Mobiles

20,000 owners of these antennae can't be wrong. It's even been copied and imitated to add to the flattery. But only the genuine antenna bears the name Modulator and carries with it the guarantee of satisfaction and performance.

### Modulator Base

The high performance original Modulator antenna. Its value for money design features a low angle of radiation together with versatile components and fittings for optimum efficiency.

### VHF Mobile and Base

Six dB gain over 1/4 wave makes these 5/8 wave antennae real winners for 2 metre, marine, VHF and PMR High Band use.

### 934MHz Colinear

Low in price and high in performance but specially made to order only. Prices are available on application.

# Mack Chat

**Mack saw CB grow up and watched a lot of fools rush into the business of selling rigs. But he's also seen some shops prosper . . .**

**F**or some time now many CB equipment dealers who believes that they could make their fortune from CB have fallen by the wayside, given up or turned their attention to more lucrative ventures. Yet there still exist in places CB shops that still manage to keep a roof over their owner's heads. Is there any secret to their success where others have failed?

From my own experience and observations I find that we have two types of dealer — be it in CB or washing machines — or any of the many other products that one would purchase. Type one is the person that is only interested in selling you a product. 'What do you want? How much have you got to spend? You need this one, thank you good day.' Type two dealer might take a little more interest and advise you on what rig is suitable and maybe help you choose an antenna to match your needs. Should you need it, they might even help you with advice in the installation of equipment, and if they have the time will always be willing to chat to you about the hobby.

When you've got a CB you soon hear where you can get the best deal when you are in the market for maybe another rig or other accessories. You also soon learn which dealer is most helpful. Some of the successful dealers are proud of the fact that they have succeeded where others have failed and occasionally they tell the staff of this magazine. So I recently contacted a few of these people and asked them what was the secret of their success. The first on my list is the CQ CB shop in Gravesend, and I spoke to Pat Lyon, one of the joint owners of the shop. 'Yes' he said, 'they are doing very well, there were three other CB shops in the area and they have all gone.' Pat said that they have always believed in giving the customer a fair deal as they realise that a satisfied customer will return again and again. Both Pat and Lyn, the other half of the business, are active in the local clubs and are both keen CBers. To help the novice breaker they publish a bulletin entitled 'Welcome to CB' that they give free to the people who are just getting started in the hobby. So if you are looking for a decent dealer in the Gravesend area you will find the CQ CB shop at 1 St James's Road, Gravesend, Kent.

The next success story comes from Wall to Wall CB. I spoke to Ray Cohen this time and his is a similar story. This well known Surrey shop will supply you with at present what ever CB rig you require, FM, AM, SSB. They also publish a guide for the novice that explains the do's and don'ts of CBing and from reports that I have had from satisfied customers many say that the proprietors would bend over backwards to help the customers with his CB problems.

Another interesting product that the store is stocking is amateur radio equipment, and by the time that you read this, Ray and other staff members may have their radio amateur licences so that they can demonstrate the ham equipment that they sell. Ray also revealed to me,



and it is the first shop that I know that has had a stock, some 934 meg rigs. Alas they had to send them back to the manufacturers as Ray said that the ten units he received looked well used and no way could or would he sell them as new rigs at a price of £200 plus. 'Did you try them?' I eagerly asked Ray. He did and said that he was very impressed with the results and waits for the day when he can stock decent 934 equipment. So keep your ears on for 'Wall to Wall CB' of 154 London Road, Hackbridge, Surrey.

The third of this group of successful dealers, and I am sure that there are many more around the country, is slightly different in so much that this partnership between Wayner Paternoster and Alan Brede is that they sell their wares from a market stall. Both of these CBers are well known of the pioneer days of CB in this country, and if one ever wanted a rig cheap, they were the ones you would go to. Until recently both of these guys were deeply involved with 'Insight' our local free rigs for the blind organisation, supplying rigs to 'Insight' at trade prices and installing them free. With really cut-price rigs and accessories, and help for the ignorant breaker they have built up quite a successful reputation for their business. You will find their stall at the Lea Valley Sunday market, Edmonton, and if you require a roof antenna installation then this can also be arranged at a very fair price.

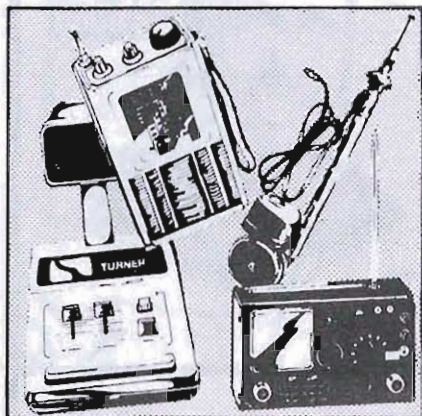
I had a letter the other day from Ian Abel. You may recall he's the chap that is campaigning for the introduction of a novice licence. The information sheet that he sent me explains the present situation of the campaign and its aims. Briefly they are to obtain an amateur radio novice licence for operators not yet possessing the qualifications for a full amateur licence. For more details of the 'Amateur radio novice licence campaign' send a SAE to the secretary, Ian Abel, G3ZH, 52 Hollytree Ave, Maltby, Rotherham, South Yorks.

This may sound strange to some but have you noticed that when you purchase a new home base antenna you may get instructions on how to construct it and even how to SWR, but how often do you find instructions on mounting it? To prove this I get letters from some people asking advice on mounting home antennas. My pet answer to some of these questions is, an outdoor base antenna suffers from claustrophobia so they must be outdoors in open spaces. They like to be mounted as high as legally possible and away from any other metal objects, gutters, drainpipes, etc. A good pair of mounting brackets should be used if mounting on a wall of one's home. Many people with tall trees in their garden may like to mount their antennas in the tree, if you do, again remember the phobia that antennas suffer. Mount them clear of any vegetation, branches, etc. As this can cause considerable attenuation if the vegetation is wet.

CB

# Equipment Review

# FIDELITY Phone-in AND IT'S LEGAL



At last there's a legal cordless phone on the market. Kevin Whitchurch has been looking at the Fidelity Wanderer — the first of a breed.

## CORDLESS PHONE REVIEW DATA PANEL

Model WANDERER  
 Distributor FIDELITY RADIO LTD  
 Typical Price £170

Features	Yes	No
Rechargeable Batteries	●	
IN?USE Lamp	●	
Intercom Facility	●	
Auto Redial	●	
Privacy Button	●	
External Antenna Facility	●	
Security Code	●	
Hand Free Operation		●
Range	200m	

### FREQUENCIES

47Mhz  
 1.7Mhz



For some time we've been covering cordless phones in *Citizen's Band*. But so far they've all been illegal models — phones imported from the States using no approved frequency. Although in the main they worked very well they were apt to cause interference, disrupt exchanges — our telephonist still hasn't forgiven us — and also they were not completely secure. It was possible that one telephone and its use could find its

way onto another user's bill. This was perhaps one of the most worrying aspects of illegal cordless phoning. All too often we feel as if we're paying somebody else's bill, but when you are it really is too much.

So, with a little sigh of relief and more than a little curiosity, we heard news that Fidelity were to launch Britain's first legal cordless phone. The launch itself was a grand affair. Lunch and drinks at the Savoy, Noel Edmonds and other media stars on



hand to press a beringed finger on the fabulous Fidelity.

You could tell from that launch that Fidelity are taking the cordless phone market seriously. How else could they recoup the cost of the feeding of the five thousand at the Savoy?

Fidelity say they are aiming their phone, the Wanderer, at both the home and business markets although they admit that one in the home might be regarded as a luxury. They argue that the sheer practical convenience of one will eliminate the need for extensions in the home.

Okay, so let's have a look at the advantages of cordless phones — now available legally and without the need to keep looking over you shoulder.

Think of when the phone rings. Now you're usually deeply involved in something else. The favourite time for it to ring is when you're in the bath — just as you've got in. Or it rings when you're in the garden up to your knees in mud. Or when you're cleaning the car. So with a cordless phone you can avoid all that — you can stay in the bath, the mud or the drive and talk to whoever calls.

You can also pass the phone round easier, with no cord there's much less chance of strangling your neighbour as you hand over the phone. You can even take your handset next door for coffee with your neighbours without the risk of missing that important call.

So, let's look at the Fidelity Wanderer itself. It has a base unit which plugs into a normal British Telecom socket and is also connected to the mains. If, like me, you do not have a socket at home, just a wire disappearing into a plastic box on the wall, do not worry. A BT engineer can come and fit the phone properly for you. In fact I was lucky, the very week I had the Wanderer on test British Telecom arrived at the office to change our phone system from the old type to the new with sockets.

Setting the phone up is therefore very easy — it's remarkably quick and practically foolproof. The cordless handset sits on top of the base unit which charges up the handset's Ni-Cad batteries when it's not in use. The handset is all you need, inside or out, to make and receive calls via the base unit. The handset can be used up to 200 metres (around 600ft) away from the base unit. If you've got a garden bigger than that then you've probably got a butler to answer the phone anyway.

The Wanderer comes in the same beige colour that a lot have their phones in already. I think they might have splashed out and given us a few choices of colour.

Getting down to technicalities the phone operates on frequencies of 47.46/47.54 Mhz from handset to base and on 1.642/1.782 Mhz from base to handset. There's also a system, called Securitron, which by digital coding prevents unauthorised dialling from handsets in the same locality. Up to eight channels can be used and there are over 16,000 codes per channel.



Facilities on the Wanderer include automatic redial — already used on some conventional phones — and what Fidelity call scratch pad memory. This means the user can feed in a number while a call is being made and automatically dial it when the line is cleared. I found this facility particularly useful when talking to Directory Enquiries.

### In Use

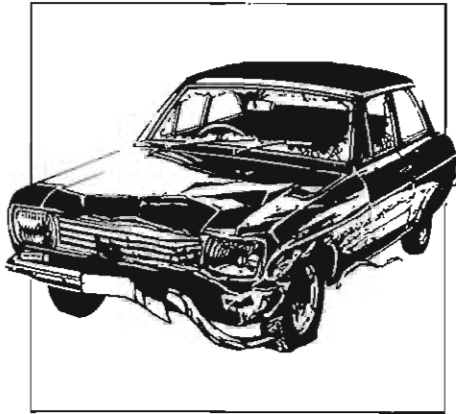
In use the Fidelity is a delight to use. The lack of cord made me feel remarkably free and it takes quite some time to accustom yourself to the fact that you're on the phone. Dialling is easy — as long as you're used to keypad controls — and use of the phone soon becomes as natural as a normal one.

There was one thing that worried me. 'Just how do British Telecom work out your bill if you're not renting one of their phones?' I asked BT. 'Ah,' they said, that's a difficult one.' Difficult indeed. Conflicting reports suggest that you have to pay the full rental charge, others say you just have to rent the line. Eventually, BT said that you have to rent the *first* phone from them. Confusing, huh?

By the time you read this British Telecom will have launched their own phone, a version of the Wanderer called the Hawk. Limited supplies will be available from May. Reading recent press reports it seems it's all futile anyway. Apparently the Government are going to change the frequencies within a year anyway.

CB





Norman Raven,  
National Director of  
the Traffic Help and  
Monitoring Emergency  
Service — THAMES,  
looks at the develop-  
ment and role of his  
own organisation.

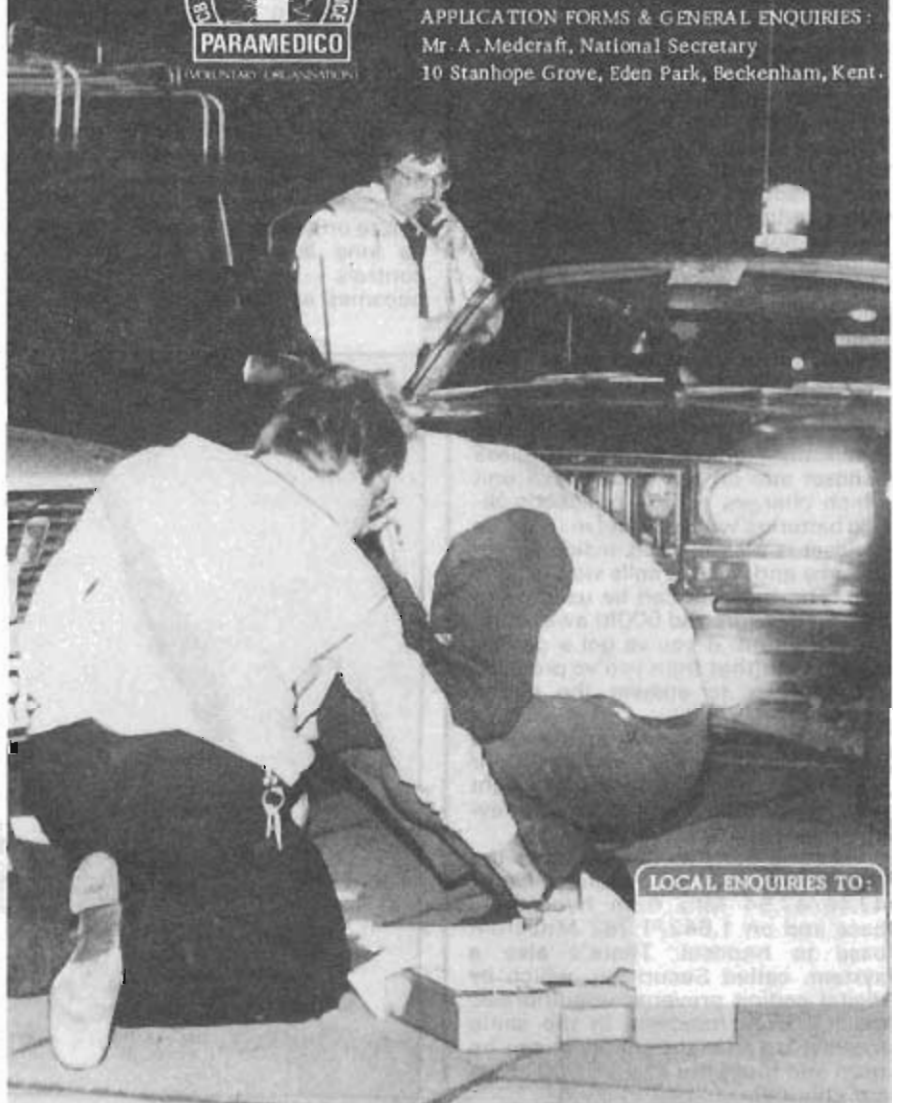
# IN ACTION WITH T.H.A.M.E.S.

## CB SAVES LIVES.

Join us. Help us.



APPLICATION FORMS & GENERAL ENQUIRIES:  
Mr. A. Medcraft, National Secretary  
10 Stanhope Grove, Eden Park, Beckenham, Kent.



**D**uring the existence of CB in the UK many changes have taken place this has also happened with the various voluntary monitoring organisations. When CB was legalised many local monitoring groups started. T.H.A.M.E.S. membership exploded and in many areas was unable to stand the pace. We have always allowed the appointed County Co-Ordinator to find his own local co-ordinators and run within our guidelines his own County. Unfortunately this, in some unfortunate cases, led to some members being left out in the cold.

As an organisation not charging its members any fees National H.Q. supply all initial paperwork and ask that co-ordinators try to produce future supplies but if they're unable we continue to supply. In many areas both at County level and local level training officers, admin officers etc have been appointed to deal with various tasks as it is not realistic to produce a training or admin booklet to cover every area individually, (as each area is in need of local knowledge).

We have during the past twelve months been involved in many and varied activities from helping other organisations with their fund raising, providing help to local welfare department for shopping trips for elderly and disabled persons, providing assistance to the police and emergency services on searches for missing children etc.

and many other types of event too numerous to mention.

As a National CB monitoring organisation we are trying to improve the useful side of CB and bring to the attention of other breakers and the community that CB can help and can be a good communication system if used in the right way. There has been much criticism regarding T.H.A.M.E.S. but, in the main, this has been thrown at us by those that are either not prepared to help others or those not willing to accept a few simple rules. We will not under any circumstances conduct a search for missing persons without police permission. Firstly it would be totally out of order and unless this type of matter is organised from the very start it would turn into a shambles and cause the police more problems.

As a National Organisation we have at both local and national levels helped many organisations in many ways and will continue to help those in need. As the adopted monitoring organisation of Natcolcibar we have been put forward to The European Citizens Band Federation as a recommended monitoring organisation. We are, at the moment, having talks with many of the small and local area monitoring groups in order to link our resources for the mutual benefit of breakers and monitoring groups. We are always pleased to help other

groups and do not insist on them changing their name even if they affiliate to us. Like all groups trying to help others funds are a problem and we always welcome donations of money and kind no matter how large or small.

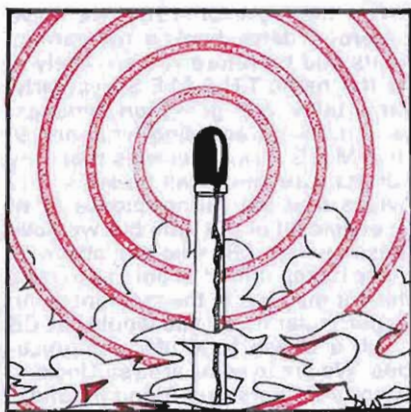
For the rest of 1983 we have numerous dates booked for various events and therefore you are likely to see the name T.H.A.M.E.S. regularly. Many talks are going on amongst many bodies regarding channel 9, T.H.A.M.E.S. firmly believes that very soon its true value will be seen. It is obvious that we cannot please all of the people all of the time but we have pleased some. CB radio has above all to lose its reputation of being a toy and whilst it may not at the moment be on the particular mode you would like CB is still a cheap form of communications. We are in some area still looking for co-ordinators and monitors and if you are interested perhaps you would like to contact me at 36 Mount Pleasant Road, Lewisham, London SE13 6RD.

Throughout the U.K. many T.H.A.M.E.S. units have control vehicles at their disposal and these are used both for co-ordinating searches as well as at publicity events. T.H.A.M.E.S. has been operating longer than most other groups and although we have ups and downs we are here to stay.

**CB**



# Antenna Review



'Antennas' says Brian W Wright, 'are difficult things to buy'. He tests one that you might buy to see how it fares

# THOROBRED



# BUILT FOR SPEED?

**M**ost breakers, when buying a rig, want to get on channel as soon as possible, after all a rig is no good unless you use it. This normally means that they buy an antenna at the same place as they get the rig. There are sometimes two disadvantages in this approach — firstly, after buying the rig they may not wish to, or able to, spend too much on an antenna thereby not purchasing quite what they would like. Secondly the range of antennas available in that particular shop at that particular time may not be too good or may not include the one that they would like. What this very often means is that the breaker becomes dissatisfied with his or her antenna after the novelty has worn off. Once the bank account has recovered from the initial outlay, the breaker then decides to buy a new antenna, but without quite so much urgency as before. The breaker's mind may already be made up by advertising or by recommendation from friends, but if not the vast choice now available can be confusing. We have therefore tested another antenna, the Thorobred from OCT International Ltd, this month

to help you in your choice.

The Thorobred is a fairly ordinary looking mobile antenna constructed in a well tried way. It is always interesting to test these ordinary looking antennas, as sometimes it is surprising the different performance that manufacturers manage to get from a straightforward 1.5 metre whip with a close wound coil at the base. The Thorobred is supplied shrink wrapped on a cardboard display backing. No instructions are supplied apart from an instruction about where to set the whip for US AM or UK FM as described below. This, like so many antennas on the market, is not a complete mobile antenna elements, no merely the radiating elements, no mounting base cable or plugs are supplied. At the base of the 130mm long 13mm diameter loading coil is a male  $\frac{3}{8}$  UNF thread, which can screw into any suitable mounting. This is a standard thread size for antennas supplied with no mounting base, and fits most mounts such as Firestik etc.

The thin, tapered stainless steel whip has a very simple but useful feature in that it has two red bands painted around it near the bottom end. These red bands are for tuning the



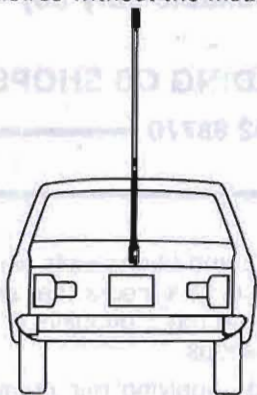
# ANTENNA REVIEW DATA PANEL

## SPECIFICATIONS

Model	Thorobred
Type	1.4 metre mobile antenna
Length	Whip: 1.4 metres. Coil: 0.1 metres
Frequency Range	25.5 — 28.5MHz
Max Power Handling	—
Impedance	50 ohm
Cable Supplied	None
Mounting Details	$\frac{3}{8}$ UNF
Supplier	OCT International Ltd
Typical Price	£16

antenna, simply slide the whip in as far as the first band and it is tuned to the US AM frequencies, or into the second or top red mark and it is tuned to the UK FM frequencies. We fitted the test antenna whip to the top of UK FM mark and without further adjustment we had an SWR of 1.3:1 with the Thorobred fitted to a magmount on the car boot. The marking of the whip may not appear to be a big deal, but it is quite convenient and shows some thought has been put into the installation.

The Thorobred could be of special interest to those of you who 'go overseas', as the whip could quickly and simply be adjusted to suit the FCC frequencies and back to the UK frequencies on your return. A small socket screw key is provided in the pack and should be kept for this purpose. One thing that was rather a puzzle was a small 'O' ring included in the pack, we can only assume that this is to fit on the whip immediately above the coil thus preventing water and dirt running down the whip and into the coil housing. The whip tapers off to a very small diameter at the top end and therefore does not present much wind resistance on the vehicle. Its length is 1.4 metres when adjusted for UK FM this plus the coil gives a total length of 1.53 metres without the mounting.



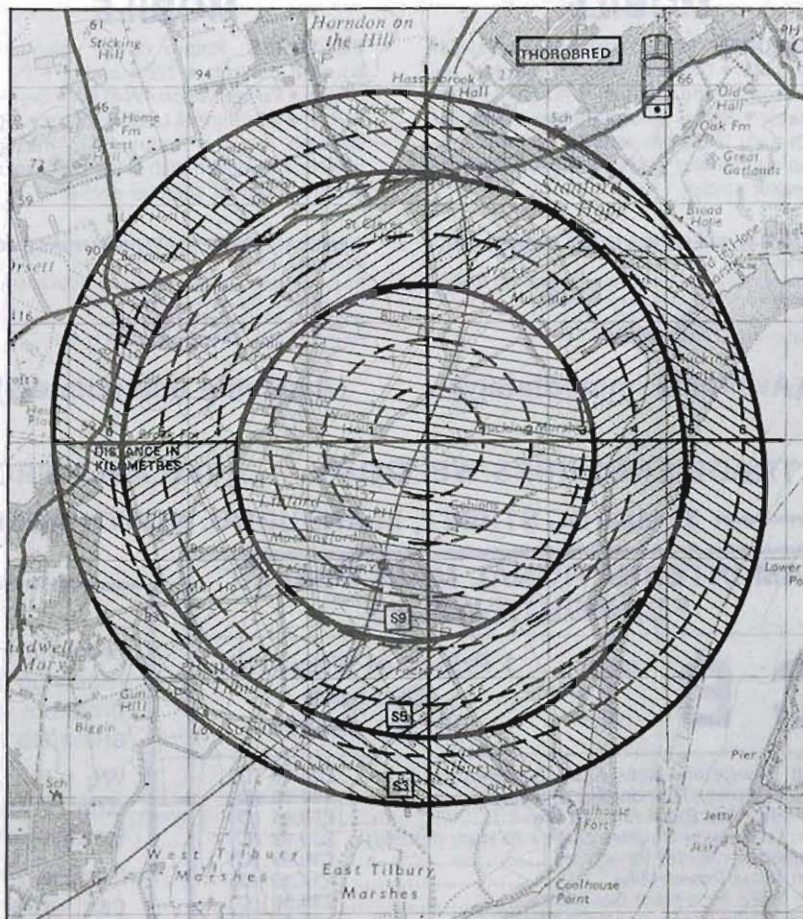
## On Test

The Thorobred antenna performed very well throughout the test and no problems in maintaining contact were encountered. In fact very good signals were maintained over most of the test routes as you can see from the test pattern.

To summarize, the Thorobred is a fairly ordinary looking antenna with an above average performance. The SWR adjustment, though completely standard for this type of antenna was absolutely trouble free due to the markings on the whip. Priced at about £16 it seems a little expensive for what you get, considering several similar antennas cost as little as £12.50. You must consider of course that a means of mounting coax and a plug will have to be purchased if you don't already have these and this will bring the cost up to around £20. Even so this is not a bad price for a well made, easily tuned, above average performance antenna.

A similar antenna for performance that we have tested would be the Falcon 27, although there is nothing similar about the appearance.

**CB**



## REVIEW VERDICT

Performance XXXX  
SWR Adjustment XXXX  
Construction XXXX

Installation XXX  
Instructions X  
Value XXX

We rate our samples on a scale of one to five. Five stars is the highest rating, **three and four stars are average to good and one and two stars mean it's not doing so well.**

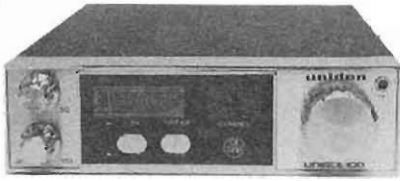
## The Tests

We have used our standard test procedure to assess the efficiency of this antenna. Just to bring new readers up to date this involves two tests; one static and one mobile. Our test sample is fitted to a stationary mobile and a second mobile follows a pre-arranged route that orbits the stationary test vehicle, sending and receiving signal reports at measured intervals. This is then repeated with the test antenna on the mobile test vehicle and the signals are sent and received between a stationary vehicle. A standard rig and antenna is used in all the tests. With the results obtained we are able to draw up the radiation pattern shown here. This is simplified to make the results more easily understood. The antenna is also subjected to a series of 'lab' tests to assess their durability, quality and construction, etc and finally we hand it over to a panel of CBers for comment.

# CRAVENMINSTER LTD

## UNIACE TELECOMMUNICATIONS

— PRESENT —

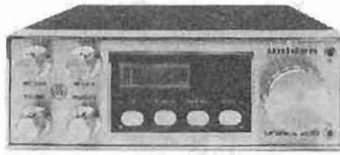


### UNIACE 100 MOBILE

**FEATURES** PA/CB switch • Power switch 4W-0.4W • Channel selector • Rotary on-off volume and squelch • 40 CH LED indicator • Signal Strength meter • Supplied with mic., fixing brackets for unit and mic., also connecting leads with fuse • External speaker socket.

**GENERAL SPECIFICATIONS UNIACE 100**  
Channels: 40  
Frequency range: 27.60125 MHz — 27.99125 MHz  
Microphone: 600 Ohms, dynamic type  
Size: 140 x 40 x 205 mm (W x H x D)  
Weight: 1 kg. Power source: 13.2v D.C.

**(Available immediately)**



### UNIACE 200 MOBILE

**FEATURES** Rotary on-off volume and squelch controls • Tone switch • PA/CB switch • Power switch 4W-0.4W • Brite-dim switch • 40 channel LED indicator • Signal strength meter • Rotary RF & mic. gain control • Supplied with fixing brackets and leads • External speaker socket

**GENERAL SPECIFICATIONS UNIACE 200**  
Channels: 40  
Frequency range: 27.60125 MHz — 27.99125 MHz  
Microphone: 600 Ohms, dynamic type  
Size: 160 x 55 x 217 mm (W x H x D)  
Weight: 1.2kg. Power source: 13.2v D.C.

**(Available immediately)**



### UNIACE 300 HOME BASE

**FEATURES** Rotary on-off volume and squelch controls • Tone switch • PA/CB switch • Power switch 4W-0.4W • 40 channel LED indicator • Signal strength meter • Rotary RF & mic. gain control • Supplied with fixing brackets and leads • External speaker socket • Head phone socket

**GENERAL SPECIFICATIONS UNIACE 300**  
Channels: 40  
Frequency range: 27.60125 MHz — 27.99125 MHz  
Microphone: 600 Ohms, dynamic type  
Size: 340 x 120 x 284 mm (W x H x D)  
Power source: 250/230 A.C. or 13.2v D.C.

**(Available July 83)**

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Swansea  
(0792) 463821

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Ham Big Mac Base Ant 7/8 Wave.....	£79.95 (D)
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Ham 232S Processor Base Mike.....	£34.99 (C)
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Ham 10-12 amp Power Supply.....	£49.99 (D)
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Ham Service Manuals (state model).....	£6.00 (B)
Ham replacement mike (as originally supplied by Ham).....	£7.99 (B)
Ham LA 120 100 watt am/fm - 200 watt ssb variable with preamp.....	£129.95 (D)
Ham LA 60 50 watt am/fm - 100 watt ssb variable with preamp.....	£79.95 (D)
SEIF reverberator RA 201.....	£26.95 (C)
Ham Viking 80 AM/FM.....	£79.99 (D)
Ham Puma 120 AM/FM.....	£99.99 (D)
Superstar 2200 200 AM/FM.....	£175.00 (D)

**POSTAGE RATES:** (A) 50p (B) £1 (C) £1.50 (D) £5.00

Please allow 28 days for delivery

To obtain your catalogue on HAM international equipment, send £1.50 to C.B.T., 1 Prince of Wales Road, Swansea. Catalogue contains the MMIII CONCORDE III & JUMBO III (1983 models)

These models are not available as yet.

**ACCESS AND BARCLAYCARD ACCEPTED**

From the number of letters and phone calls we are receiving about our product it appears that some breakers are unable to purchase genuine G.A.P. antennas from their local shops.

We have recently started supplying our products direct to the public and this is proving to be very successful.

If you have any difficulty in obtaining our products you can order them direct from the factory, at the following prices:

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G.A.P. 27Mhz 5/8 wave.....	£16.95
Gamma SuperMag.....	£7.50
G.A.P. Avenger.....	£19.95
G.A.P. Lofty.....	£19.95
G.A.P. RingoPlane.....	£T.B.A.

These prices include V.A.T. Please add £1.15 for postage and packing. All cheques and postal orders should be crossed and made payable to:

**Gamma Aerial Products Ltd.**

## Gamma Aerial Products

**MANUFACTURERS OF AMATEUR RADIO & CB ANTENNAS**  
LYE, WEST MIDLANDS  
TRADE ENQUIRIES TEL. LYE 891132



**Breakers come in all shapes and sizes. And just because a couple of them are on the wrong side of 40 doesn't mean they're over the hill. Take the Actual Ace for instance . . .**

## Portrait Of An Ageing Breaker

**B**reakers become breakers for all kinds of reasons. They like the red necked image of 'Smokey and the Bandit' so beloved of the media; they are people interested in electronics and 'how things work'; they value communication with their fellows or, they are guys and girls who just never grew out of toys. I venture to suggest that most of us are a little bit of each of these. In each of us there is a genuine curiosity, or need to communicate, a desire to be involved in something new and of the age and if we are really honest it's a hard 'grown up' who can resist the desire to have a little play! 'Actual Ace' is just a little more of each of these than most of us.

He is just on the wrong side of forty, though like he says, that's only my point of view, and came into CB through flying home-built model aeroplanes. He never saw any conflict between the two hobbies and sarcastically reckons that more of his planes were brought down by police radios than were ever pranged by CB users (like most enthusiasts he is a little prone to exaggeration but honestly believes he never lost a plane through indiscriminate use of Citizens' Band Radio.)

Actual Ace does not fly much now, CB seemingly having dominated his spare time and as he says 'sorely damaged his toy box fund!' However, he still reckons to make an occasional guest appearance at the flying ground to show newcomers and old hands just how it is done. He got his handle 'Yer Actual Ace' long before the advent of CB when he safely landed a fellow modeller's plane on only one flap.

The Ace has had many rigs and has a shed permanently full of wounded CBs that local breakers bring to him for doctoring. Cutting through the smoke and smell of fresh soldering I found him, crouched over what I thought was a martian TV but which he patiently explained was an ex-W.D. oscilloscope, surrounded by the guts of a Midland 100M (AM in those days of course). 'What's that?' I asked him after convincing myself that you could not get 'The Sweeney' on an oscilloscope. Not having seen me for five years or so he politely passed over my ignorance. 'It's a CB radio that isn't a CB radio 'cos it's bugged!' he advised me with feeling.

The was half through the British CB age for him and the very beginning for me.

His Holstein-ravaged waistline strained at the material of a black sweatshirt emblazoned with the motif 'How can I soar like an eagle when I'm surrounded by turkeys?'. I guessed he

figured me for an out-of-town-turkey having left his twenty to seek my fortune in the smoke, but it was a wrong guess. 'Wait one' he said 'I'll get a couple of cans!'

Never having really understood electronics (and knowing I probably never will) the Ace has repaired, tweated and adjusted, fitted and explained the niceties of the interiors of CB radios to my uncomprehending ears for a long time now. When I consider the money it has cost me over the years I wonder if he did me any great favours when he introduced me to CB radio!

When Actual Ace is not putting out from his Starduster (most of the time he is on legal FM now) he is sitting up in bed, while his charming and long-suffering wife tries to sleep, ratcheting away on his homemade hand-held to his large and intimate circle of fellow insomniacs and friends, among the latter I am proud to count myself.

He hates wallies with a rare passion but would help any genuine breaker in trouble with his last transistor. It has been my joy to find that down there on the South Coast, Actual's home twenty, wallies are not quite as thick in the air as they are in London.

Although the breaking channel is the one-four (late at night) Ace can usually be found around the ten window, a habit formed by excessive use of his home made hand held which operates at its peak on that number. A good ruse for avoiding the often wally haunted one four in my home twenty. There are, I am sure, many breakers burning more than forty candles but I bet there are few that are more enthusiastic than Yer Actual.

When he is doctoring your rig or fitting an antenna to your car in your presence he gives a running commentary, around his cigarette, of just what he is doing, what tool he is using, why it doesn't fit and complaining that with all of the repairs he does he gets less and less time to ratchet on the airwaves himself.

Yer Actual Ace at forty is what I consider to be an ideal breaker. He always has time for the not-so-knowledgeable, you can always have a decent chat with him, he only drinks Holstein and homemade wine and doesn't go to bed till very late. Last time I saw him he had packed the cigarettes in and was losing weight. He was just as busy.

Give him a shout if you are in the Ghost Town twenty and tell him the Scallawag said hello. He is an ageing midnight talker — with a welcome for a breaker on the side! And, he is 'Yer Actual Ace'.

# NEXT MONTH

THE AUGUST  
ISSUE WILL BE ON SALE  
FRIDAY  
**15**  
JULY

The articles mentioned are in an advanced state of preparation but circumstances may affect the final contents

We're massing the brilliant talent of Argus Specialist Publications to bring you the very best of CB in the August issue of *Citizens' Band*. Once again our great and good Managing Editor (creep-creep, crawl-crawl), better known as Cliff Wilson, is gracing our pages. This time he's reviewing the latest Maxcom Speakeasy.

Brian W Wright, rapidly establishing himself as *the* leading antenna expert, will be peeking at a Binatone antenna.

Andy Giles, our equipment aficionado, has been busy too. Daiwa have given him one of their excellent Selcall units to play with and he'll be telling you (and me) all about it.

Not only that Andy, the naughty boy, has been investigating the illegal side of cordless phone and, in particular, a new member of their ranks. Yes, he's been testing the Handy Phone, and he reckons its quite a bargain.

On top of all that there will, of course, be our regulars. Smart Alec

will be answering more of your tricky questions with his usual aplomb. Mack The Hack will be parking the old cab and voicing his opinions on the subject of CB, the universe and everything. Cor, he doesn't half go on!

Medicman, the man with the cupboard full of QSL cards, will be showing you the latest additions to his collection, updating you on the hottest news in the QSL world and pointing you in the right direction if you want to start QSLing. There'll be clubs, news and more, more, more in the August issue of your soaraway CB. No CB, no comment.

## COMPETITION

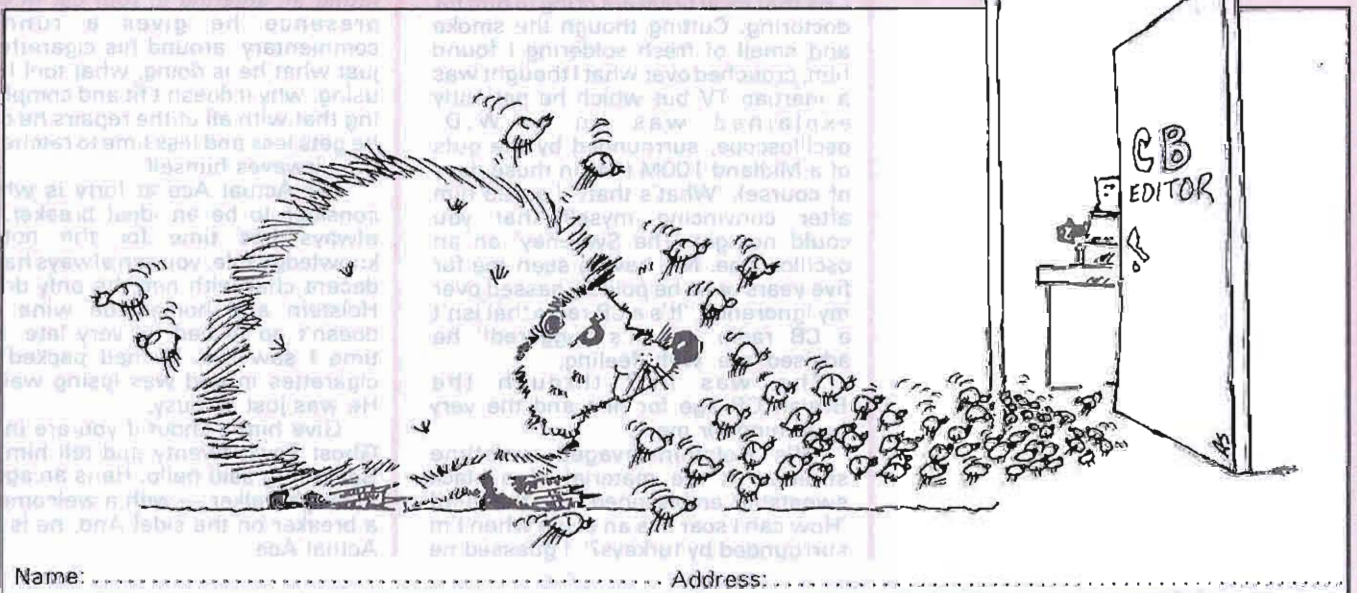
Remember our Spot The Spot competition? You had to find the blemish on the chap's face? Good, thought you might. Well, that was such a success and you seemed to enjoy it so much we decided to do another 'Spot The competition.' This time we're including our great friends the hedgehogs. Yes,

our prickly pals our getting in on the act.

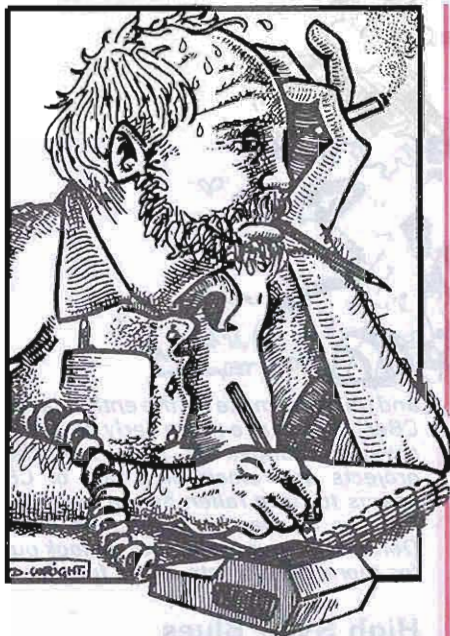
All you have to do is to spot the flea on the back of our happy hedgehog. Just make a cross where you think the flippin' flea is. Then cut out the picture and send it to us at the address below adding your name and address to the picture. By the way, this competition is open to Junior Breakers only, so please make sure you're under 16. Ask your Mum, she'll tell you how old you are.

Prizes? You mean you want prizes too? Oh well, s'pose we should give some away. Okay there are two prizes — both the same. Yes, we have two magnificent Thunderpole Mark II antennas to give away. You know what we think about them, they were included in our best five antenna last month. One last thing — the closing date is for the competition is 15th July so get your entries here before then.

**Don't forget the rules.**  
No employees of ASP are allowed to enter. Entries must be here by 15th July '83, second post. The Editor's decision is final. Don't forget to include your name and address. Remember, you must under 16. Entries to Spot The Flea Competition, Citizens' Band, ASP Ltd, 145 Charing Cross Road, London, WC2H 0EE.







So many breakers have so much that they want to say either 'on channel' or through the post. Here we have a selection of the most topical . . .

### Fooled Again

Dear CB,  
 Twelve months ago this month I read with interest in your fine magazine a rig test on the Microvox AF 27934.  
 Unfortunately I've not seen or read anything about this model since. I would like more information on this model, could your please help me?  
 Mr T A Rule,  
 Penarth,  
 South Glamorgan

Dear CB,  
 In your April 1982 edition of *Citizens' Band* you have got an article on the Microvox AF 27934 CB radio unit. After a fruitless search to try and obtain this particular rig I have finally decided to write to you for the name and address of the distributor to see if I can get any better luck in obtaining this rig.

My own opinion of the 27 MHz FM system is that there are too many wallies on this system and if the 934 is as good as your article says it will be a very good rig indeed.

A Wignell,  
 Renishaw,  
 Sheffield

*Isn't it funny how a year can go so quickly. It doesn't seem twelve months since we were swamped by phone calls and letters asking about the Microvox AF 27934 rig review we printed. The thing about the Microvox review is that it did appear in the April edition of the magazine, it did have some magical qualities (and a couple of downright impossible ones) and it was an April Fool joke.*

*I remember at the time a couple of you good readers were highly amused. A couple of you were outstandingly angry.*

*Well, as you can see there are a few readers a little behind the times - still asking about the magical rig. Well, Mr Wignell and Mr Rule, we're sorry but the rig does not exist.*

*I wonder if we'll be getting letters about it a year from now?*

### Games On The Frontier

Dear CB,  
 A word of warning to any breaker with a CB set 'plumbed' into his car, even if the aerial is removed, contemplating travelling to West Berlin along the corridor from the West German frontier. The DDR police do not like them. You are forbidden to use them and a transit licence costing 10 Deutschmarks is issued after a lot of hassle.

In fact visiting Buchenwald, the site of a wartime concentration camp now in close proximity to a Russian Warsaw pact base, there are notices forbidding the use of 27 MHz walkie-talkies. By the way, my call sign caused some mirth among certain border guards.

'Applejack'  
 P B Hartley,  
 Nelson,  
 Lancashire

### Winning Run

Dear CB,  
 After winning the Binatone Long Ranger competition in your February competition I promised to let you have a report on its performance. First, I must give you my location to give you some idea of my home 20's.

I live in a rural area eight miles west of Berwick upon Tweed at a height of 218 feet above sea level and more or less surrounded by trees.

I'm really delighted with the set. Using it with ordinary batteries as a hand-held I was getting very good reception up to 14 miles away. I was told I was loud and clear at signal strength R4 - this was from a clearing in the middle of a wood. From inside my house I was reaching my friend just over six miles away at R3 and readable.

I then connected up as a home base and I got out to a distance of 40 to 45 miles away and receiving a R3. I also have two QSLs to confirm these copies.

I then switched it to a car. I have had several excellent results up to 35 to 40 miles away. Only this morning I have just had an excellent copy to a place 37 miles south of here.

The measurements I have given are all direct line and not road miles. Yes, this is an excellent set and I have no hesitation in recommending it to anyone.

By the way, my base antenna is a Gamma which gives good results at 40 feet up. Looking forward to my next copy of *Citizens' Band*.

**Peter Jaffry,  
Ladykisk,  
Scotland.**

## Magnificent Magpie

Dear CB,  
In your April '83 issue you published a rig review of the Magpie Auto-scan 5000. Your description 'The performance has been a revelation compared to anything we have seen before' prompted me to send for a rig at once.

I received a courteous and prompt reply, a personal letter, not a printed sheet. I asked for information on aerials — this was given in detail. I received my rig within two weeks. The instructions were well presented and adequate.

I connected the rig to an external (house) aerial and my first contact was a breaker some six miles away. Explaining that the rig was new I invited his comment. He replied 'What are you using? I have never had such a good performance and your voice is so natural you could be in the room'. I then put the rig in to my car and I can assure you that the performance is outstanding. There is no doubt that my breaker friend will purchase an Auto-Scan without delay. Thank you for your very good and true review.

**Transit 1,  
S Gascoine,  
Stowmarket.**

*The previous two letters, from opposite ends of the country, reflect the enjoyment two breakers have had from CB and their particular new rigs. It is great to hear from new and enthusiastic breakers just starting out and having such fun and success. Makes you glad to be alive!*

## Aquarius Network

Dear CB,  
I am writing to tell you about the 2-4 Network held by Aquarius — Monday to Friday between 7.30 and 8.45 am, and 4.45 till 6 pm in Banger Town (Haverhill).

As I write the network has been running for exactly one year. Just lately we seem to be getting quite a few breakers coming in on channel 2-4 and not realising there is a network running. Also it may be said that the 2-4 follow-up from the channel 1-9. The channel now gets so congested that the truckers have trouble putting out

copies as well as receiving 10-13's. Some people tend to forget that it is a breaking channel and continue to modulate on it.

So, please would you print my letter in your magazine so that other breakers will realise what is happening as we would like the network to keep running — Aquarius does a good job.

**Bitter Top,  
Haverhill,  
Suffolk.**

## Plans, Plans, Plans

Dear CB,  
With a growing number of CBers taking a serious interest in radio and going on to explore amateur radio and hoping to obtain a ticket many I am sure would like to repair and carry out legitimate mods to their CB equipment.

I accept that the amount of space you can devote to this side of CB is limited but how about offering a photocopy service for a circuit diagram and component layout of the various sets at say, about £2 a time. This would be a useful service and would also enable those interested to make comparisons between rigs or even make a thorough study of a particular make before purchase.

On another subject — TVI. As more and more people are setting up home bases using sets designed for mobile use one source of TVI is aggravated. The chassis and metal box are generally floating to allow for cars with neg and pos supplies. When used in a car such sets are screened by the car. Connecting the chassis and case to the power supply earth can cure some TVI. I have done it!

**B J W Bailey,  
Sutherland,  
Scotland.**

*This is rapidly turning into the funny-you-should-mention-that column. So here goes - funny you should mention that! Here, at Citizens' Band, deep in the planning department, where bold men fear to tread, fantastic drawings - complex and crazy - map out our ideas for the magazine's future.*

*Among those plans is one very similar to the one you mention. You may or may not know that Citizens' Band was originally part of Hobby Electronics, a bastion of the ASP publishing empire, and that the early issues were jam-packed with projects*

*and things to make for the enthusiastic CBer. Well, since those early days and several changes of personnel the projects and electronics side of CB seems to have fallen by the wayside. But, we do plan to bring them back. Don't hold your breath but do look out for more CB projects in the future.*

## High SWR Blues

Dear CB,  
I don't honestly think there is one single breaker unfortunate enough to have experienced the 'High SWR Blues' who wouldn't agree what a horrifying experience it is to go through.

The same nightmare happened to me recently when, after a year of CBing, I decided to remove my Silver Star 1/4-wave antenna from the loft and situate it outside my house. I wasted no time in purchasing a 6-foot aluminium mast, bolting the twig to it, and fixing it to the wall with a pair of brackets. With great anticipation I tested my SWR, but, lo and behold, found it well into the red. I tried everything from re-fitting the co-ax plugs to tearing my hair out in a desperate attempt to decrease my 25 percent — 42 percent power loss. Eventually I found the root of the problem; my twig didn't like the aluminium mast! I then decided to cut strips of garden hose (no less) and laid them against the areas where the base of the antenna made contact with the top of the mast. I also used strips of hose at the base of the mast where it was clamped to the wall brackets. My SWR has now miraculously fallen to 1.1.5 and I am happy once more.

I'm afraid my Dad wasn't happy when he went to hose the garden the next day!  
**Rebecca Openshaw,  
Weybridge,  
Surrey.**

*Thanks for the letter Rebecca - but most of all thanks for the great cartoon of your Dad attempting to water the garden. What's the cat looking so pleased about. Answers on a postcard please . . .*

**Letters intended for publication should be addressed to: Backchat, Citizens' Band, 145 Charing Cross Road, London WC2H 0EE. Letters not containing a name and address will not be considered for publication.**





# CLUB NEWS

**From Belfast to Bolton, from Scotland to Southampton, CB clubs are thriving. Here is the news from one of those areas and an invitation to meet some cracking clubbers . . .**

First let's whizz off to Bonny Scotland to meet our old friends the 2nd City Breakers. You can probably tell from the name that they're based in Glasgow, not only that, their honorary President is Dr Michael Kelly, Lord Provost of the City! Anyway, here's what secretary Guyan has to say . . .

*'Most importantly we must tell you of a change of address for the club. It's now 2nd City Breakers, PO Box No 1, Baillieston, G69. There's also a new committee, the chairman of the club is now Rock-A-Jock and I am the secretary. The club now has a membership of about 140 - both adults and juniors. We hold our club nights on Sundays at Bannerman High School between 7pm and 9.30pm and involve ourselves in several charity drives and sponsored marathon modulations. We also have treasure hunts during the summer months. Anytime we go on these hunts visitors are always welcome.'*

## North West Breakers

S'pose it would be a bit far to visit Glasgow if you live in Belfast but there again, if you live in Belfast you can just join the North West Breakers . . .

*'The North West Breakers recently moved to a new meeting place in Belfast' writes Atomic. 'We now meet at the Highfield Community Centre every two weeks to do the sort of things CBers do' Say no more! - Ed.*

*'Membership fees are between £2 - £5 and each new member receives a card, keyring, calendar, pen, pouch and membership certificate. If any breakers want more information they should contact the address below'*

**NWBC**  
125 Springmartin Road,  
Springmartin Estate,  
Belfast,  
Northern Ireland

## Circle of Friends

Many thanks for those few words Atomic, wasn't it great to see the

Belfast Marathon become such a success? Now, from Belfast to Bolton and a breaker called Bubblehead . . .

*'I thought it was about time that I wrote and let you know that the breakers and Westhoughton and Atherton are still alive and well. We have recently formed ourselves into a club called the Circle of Friends and have just moved to a new clubhouse, the Reform Club, in Westhoughton.*

*At the moment we have around 75 members - with more to follow hopefully! Our gathering get together twice a month on the first and third Thursday of each month. We usually have a disco on the first Thursday and just a get together on the other one but we have some other events in the pipeline which include a sponsored ratchet and a Lancashire Night - consisting of a folk group and a comic followed by a hot-pot supper.*

*Before I close may I say that if any of you good buddies out there are ever passing through our neck of the woods we will listen out for you and hope that you may even call in and eyeball us.'*

**Bubblehead,**  
27 Old Vicarage,  
Daisy Hill,  
Westhoughton,  
Nr Bolton,  
Lancashire BL5 2EL

Finally a word from Southampton or more specifically the Good Companions International DX Club. Dave Yeates who runs the club is looking for 'good, clean UK members' wishing to join a truly international club. Write to him for details at . . .

**PO Box 48,**  
Southampton,  
SO9 7DQ



# CLUB DIRECTORY

## ENGLAND

### CORNWALL

**THREE MILE BREAKERS**  
Chairperson: Mrs S A Blewett,  
PO Box 1, Hayle,  
Cornwall  
Meet: Sundays, 8pm  
The Penmare Hotel, Hayle

### CUMBRIA

**CARLISLE BREAKERS SOCIAL CLUB**  
Chairman: King Cone,  
12 Blundell Road,  
Carlisle  
Meet: Thursdays, 7.30pm,  
Keeps Night Spot, Carlisle

### DEVON

**ARTILLERY BREAKERS CLUB**  
PR Contact: Musicman (Maurice),  
313 North Road West,  
Plymouth, Devon PL1 3DJ  
Meet: Mondays, 7.30pm,  
Artillery Arms, Stonehouse



### HERTFORDSHIRE

**SUNRAY CLUB**  
Chairman: Arbo Man,  
Sunray Club,

PO Box 2,  
Royston,  
Herts  
Meet: Mondays, 8pm, Oak Room,  
Bull Hotel, Royston

### HAMPSHIRE

**GOOD COMPANIONS**  
Chairman: Dave Yeates,  
107a Bridge Road,  
Woolston,  
Southampton  
Meet: Anytime, above address

### LONDON

**LINK UP BREAKERS CLUB**  
PR Contact: Corinthian,  
19 Michael Road,  
Leytonstone, E11  
Meet: Wednesdays, 8pm,  
Heathcote Pub, Grove Green Rd,  
Leytonstone E11

### OXFORDSHIRE

**BRAVO LIMA BREAKERS CLUB**  
Chairman: Steve Spiers,  
PO Box 169,  
Oxford  
Meet: Alternate Tuesdays, 7pm  
Littlemoor Village Hall

### SURREY

**WHISKY RADIO CLUB**  
Secretary: Terry Meader,  
PO Box 47d New Malden,  
Surrey, KT4 3EU  
Meet: Fridays, 8pm, British Oak,  
Richmond Road, Kingston

### SUSSEX

**27/81 CB CLUB**  
PR Contact: Terry Kennard,  
95 Junction Road,  
Burgess Hill,  
Sussex RH15 0JL  
Meet: Sundays, 7.30pm,  
Junction Inn, Junction Road,  
Burgess Hill

## YORKSHIRE

**PONDEROSA CB CLUB**  
PR Contact: Red Eye,  
95 Knowles Lane,  
Holmewood, Bradford  
BD4 9AR West Yorkshire  
Meet: Mondays, 7.30pm,  
St Lukes Church Hall, Holmewood,  
Bradford

## SCOTLAND

### GLASGOW

2nd **CITY BREAKERS**  
Chairman: Tony Jaconelli,  
PO Box 1,  
Baillieston, G69  
Meet: Sundays, 7pm

## WALES

### GWYNEDD

**LIMA YANKEE RADIO CLUB**  
Chairman: Richard Paul Jones,  
Greenacres,  
Morfa Nefyn,  
Nr Philheli, LL53 6BP  
Gwynedd, North Wales  
Meet: Pen-y-criag shop, Llangwnad

## PEMBROKESHIRE

**ABERGWAUN BREAKERS CLUB**  
Secretary: Graham J Thomas,  
No 1, Bryn Llewellyn,  
Fishguard,  
Pemb, Wales  
Meet: 2nd Saturday in month,  
7.30pm, Cambrian Inn, Fishguard

## SOUTH GLAMORGAN

**BRISTOL CHANNEL RADIO CLUB**  
Chairman: Mercury,  
PO Box 14,  
Barry, South Glamorgan  
Meet: Wednesdays, 7.30pm,  
ROAB Club, Broad Street, Barry.

# CITIZENS' BAND CLUB DIRECTORY REGISTRATION FORM



CLUB NAME . . . . . ( )

CHAIRMAN . . . . . ( )

Secretary . . . . . ( )

PR Contact . . . . . ( )

Contact Address . . . . . ( )

..... (Tel No. ....)

MEETING PLACE, DAY AND TIME . . . . . ( )

.....

No. of members . . . . .

Position in club . . . . .

Fee/sub etc . . . . . (Committee members only please)

Please mark (\*) Information that may be published.



# CLUB Special

Every now and again you come across a really worthwhile, successful and attractive CB club. This month, just that has happened, so let's welcome the Whisky Delta Charlie International DX Club



The Whisky Delta Charlie International DX Club is based in Wakefield, West Yorkshire. Its secretary, Martin, writes to tell all about it . . .

*'Well, you've written about the rest so I thought I'd better write and tell you about the best. The WDC DX Club has been on the go now for over two years, with over 500 UK members and more than 200 overseas members in more than 50 different countries. We're open to AM, SSB, and FM users we cater for mainly DXers with such things as PO Box facilities available for £2 per year (February to February). We can supply up to three different stock QSL cards, a Scottish division QSL card, Italian division QSL cards, club personalised QSL cards at £10 per 200 post and packing.*

*A club directory containing DX information and the full country list for our WDC DX award. The award scheme consists of 18 different awards and certificates for confirmed contacts around the world.*

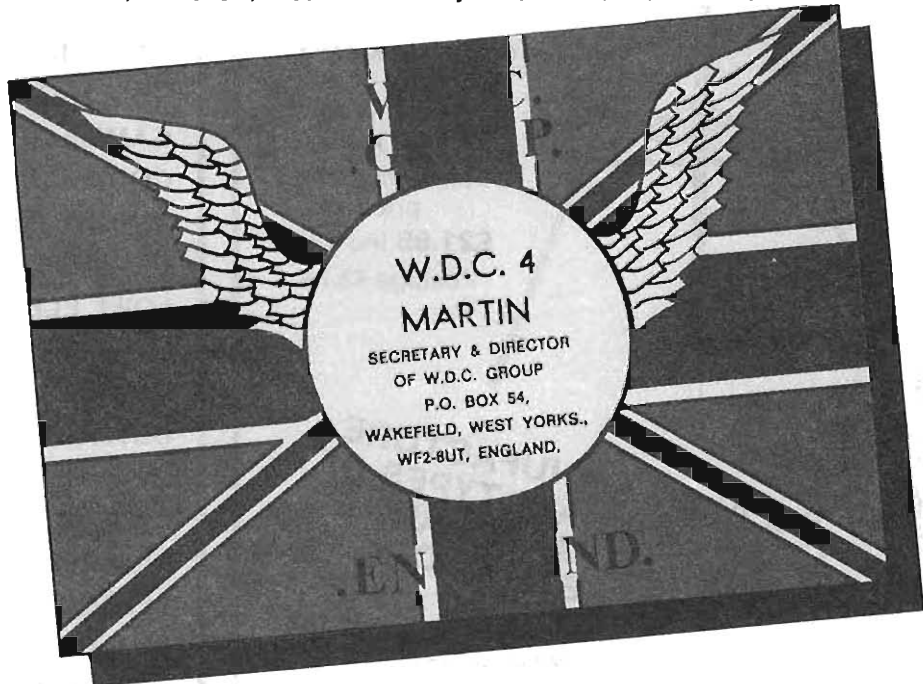
*We meet every Sunday at 8pm to 10.30pm at the Flanshaw Hotel, Flanshaw, Wakefield, West*

*Yorkshire. This is where we hand out the week's QSL mail to members who attend - we also have a 'shop' at the meeting where we sell all the club extras plus dozens of different picture postcards and stickers from around the world.*

*We also supply, to people who write enclosing an SAE, a three-page DX information handbook, phonetic alphabet, standard operating procedure etc.*

*We are a well-established, here-to-stay, semi-professional run club, with a cast-iron nucleus of local DXers who promote the club worldwide daily. We won't fold up overnight or cease to exist through lack of funds or interest. So what's everybody waiting for? Tell them to get their pens and paper out immediately and take advantage of our non-profit making organisation. All money we receive is ploughed back into the club to improve back-up facilities for the members.*

**W D C 4 Martin,  
Secretary,  
PO Box 54,  
Wakefield,  
West Yorkshire WF2 8UT**

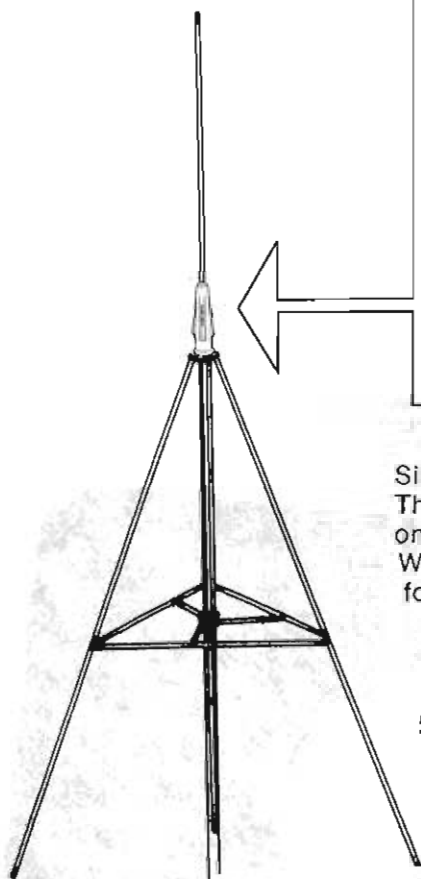




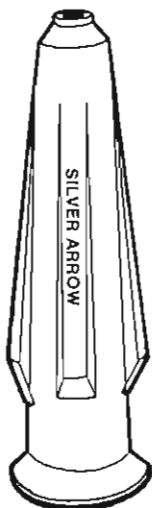
**AERIAL SUPPLIES** (Redditch) Ltd

## SILVER ARROW

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ARROW  
MARK II  
LOADED  
COIL IN  
NEW  
PLASTIC  
MOULD**



**NEW!**

Silver Arrow Mark II  
The best legal aerial  
on the market today.  
With extra bracings  
for strength on the  
ground planes.  
Recommended  
price  
**£21.95** inc VAT  
Postage £3.75

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A RANGE OF ALL TYPES OF  
AERIALS, MASTS AND  
BRACKETS, ETC.**

6 Widney House, Bromsgrove Road,  
Redditch B97 4SP  
Tel: Redditch 62620 and 60107



**THE  
AUTOSCAN 5000 IS UNIQUE**

IT'S PROBABLY THE ONLY SCANNING RIG IN BRITAIN  
TODAY - AND BRITISH DESIGNED AND BUILT TOO.

THIS IS THE START OF A NEW GENERATION OF  
QUALITY RIGS AND HAS ALREADY RECEIVED WIDE  
ACCLAIM FROM USERS AND REVIEWERS ALIKE 'FAR  
OUTCLASSING OTHER PRODUCTS IN DESIGN,  
PERFORMANCE AND LOOKS.'

IF YOU ARE A SERIOUS BREAKER YOU WILL BE  
CURIOUS ABOUT THE AUTOSCAN 5000. FIND OUT  
MORE FOR YOURSELF AND HOW YOU CAN TRY ONE BY  
WRITING FOR OUR BROCHURE TO THE  
MANUFACTURERS:

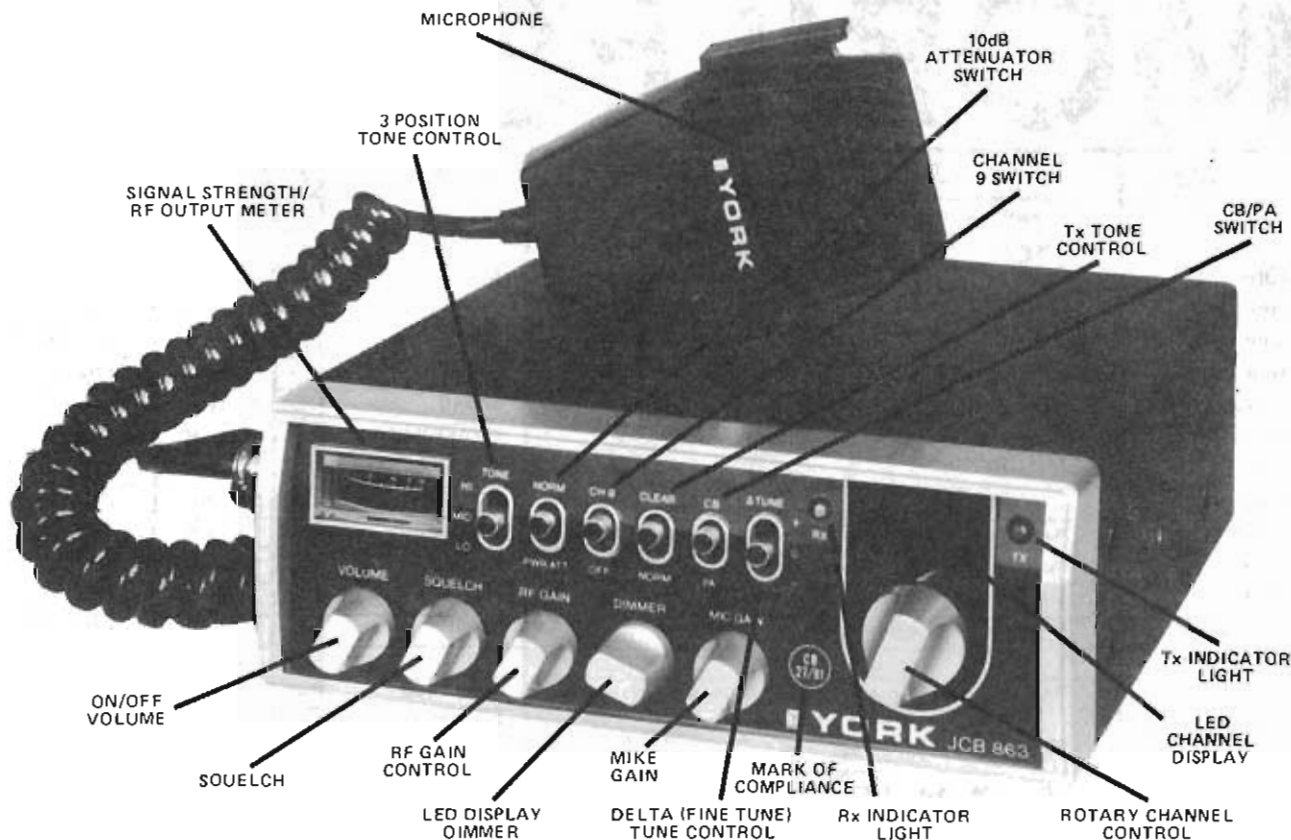
MAGPIE ELECTRONICS LTD., FREEPOST, ANDOVER,  
HANTS SP10 2BR (NO STAMP NEEDED)  
OR TEL: 0264 58442 (Please note our new Tel. No.)

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# Citizens' Band

## REFERENCE SECTION



### SQUELCH

For anyone who has never used a rig before, this is probably the control that is the most difficult to understand. It exists to remove the background noise, that hissing sound that you can hear when there isn't a signal present. Nothing happens when the squelch knob is turned slowly clockwise, until it reaches a point just above the level of the background noise. Then, suddenly, the noise will totally disappear and you will hear nothing at all until a signal that is stronger than the background noise is received. This signal will cause the squelch to *open* and you will hear it, but as soon as it disappears, the squelch will *close* again and no sound will come from the rig. Care should be taken when adjusting this control because the higher it is set, the stronger the incoming signal has to be in order to open it. For the best results, the control should be left at the position just past the point where the background noise vanished. It will then let through any signal that is stronger than the background noise but not the noise itself.

### RF GAIN

This is a variable attenuator that cuts down the amplification which is given to incoming signals and the more it is turned, the less the gain of your rig. This helps to prevent overloading when you are talking to someone who is very close by.

### SIGNAL STRENGTH/RF METER

This is a dual function device that shows the relative strength of the signal you are receiving and the more it is turned, the less the gain of your rig. This helps to prevent overloading when you are talking to someone who is very close by.

signal, the stronger that signal is. If someone asks you for a signal report, all you need to do is quote the number that is indicated on your S-Meter. This will give them a good idea of how well you are receiving them but you should remember that this is a *relative* indication and another rig under *exactly* the same circumstances could well give a reading that is 2 or 3 points different.

The same applies to the RF Meter. It also gives a *relative* indication of the power, you are putting out and it doesn't give a reading in watts. When you have properly tuned your antenna, you should note the position of the needle when you transmit, it should be around the 8 mark. If it suddenly moves from this position when you are transmitting, you should immediately re-check your antenna as there will almost certainly be something wrong with it.

### NOISE BLANKER

These two functions are often combined on one switch and although they operate differently, they both exist to cut down interference. Most ANL systems work reasonably well but an NB is a far more efficient device that will remove almost all of the crackles and pops that are caused by interference.

### LEDS (RX TX)

The appropriate one of these light emitting diodes lights to show if you are transmitting or receiving.

### PA/CB

This switch turns your rig into a low power public address amplifier when it is set to the PA position. There is a socket on the back for an exten-

sion horn type speaker to be plugged into and anything you say into the microphone will be amplified and broadcast through the speaker.

### MIC. GAIN.

This control alters the amount of audio from the microphone used to modulate the outgoing signal. When it is set to minimum, you are transmitting a blank carrier regardless of whether you speak into the microphone or not but when it's set to maximum, your signal is at almost 100% modulation.

### HI/LO

This switch cuts down the output power of your rig so that you can conform to the rule on the back of your licence that says that you must reduce your power by 10 dB if your base station antenna is more than 7 metres above ground level.

### CHANNEL SELECTOR

This is the knob that you use to change channels.

### CHANNEL INDICATOR

This window displays the number of the channel in use. Most sets use LEDs for this display but some manufacturers prefer to use liquid crystal of fluorescent type displays. Displays will normally be bright red, orange or green and visible in all but the most direct sunlight.

### CH 9 PRIORITY

This switch allows you to go immediately to channel 9 without having to use the channel selector.

# FM RIG CHECKLIST

# MOBILES

NAME	ADDRESSES	MODEL	NO. OF CHANNELS		RETAIL PRICE
				SUPPLY VOLTAGE	
ALBA	Alba (Electronics) Ltd, Bull Lane, Edmonton N18	CBMI 40	40	13.8VDC	T8A
AMSTRAD	Amstrad Consumer Electronics, 1-7 Garman Road, London N17	CB 901	40	13.8VDC	£89
AUDIO LINE		341	40	13.8VDC	£106
AUDIO LINE	CB Radio Centre, 337 Kenton Rd, Harrow Middx	340	40	13.8VDC	£80
AUDIO LINE		342	40	13.2VDC	£149.95
BARRACUDA	Halfords Motor Accessory Shops	GT 868	40	13.8VDC	£70
BARRACUDA		HP 940	40	13.8VDC	£85
BINATONE	Binatone House, Beresford Av, Wembley, Middx	BREAKERPHONE	40	13.8VDC	£99
BINATONE		ROUTE 66	40	13.8VDC	£79.95
BINATONE		5-STAR	40	13.8VDC	£100
BRAEMAR	Geminex Overseas, 348 Kings Rd, SW3 5UZ	BRAEMAR	40	13.8VDC	ETBA
COBRA	Mura (UK) Ltd, High Rd, Willesden, NW10	21 X FM	40	13.8VDC	£79
COLT	Shellpost, 183 The Rock, Bury, Lancs	295	40	13.8VDC	£80
COMMTRON	Roger D, 831 Mansfield Rd, Notts	CB40F	40	13.8VDC	£70
COMMTRON		CXX	40	13.8VDC	£69.95
CYBERNET	Goodmans Loudspeakers Ltd, Downley Road, Havant, Hants PO9 2NL	BETA 1000	40	13.8VDC	£70
CYBERNET		BETA 2000	40	13.8VDC	£85
CYBERNET		BETA 3000	40	13.8VDC	£100
DNT	Radiotechnics Ltd, Grove Way Bel Royal, St Lawrence Jersey CI	M40FM SPECIAL	40	13.8VDC	£100
ELFTONE	4 Beresford Av, Wembley, Middx, HA0 1YA	ELCB 6000	40	13.8VDC	ET8A
EUROCOMM	Zycomm Electronics, Ripley, Derbyshire	EURO 40	40	13.8VDC	£69
FIDELITY	Fidelity Radio Ltd, Victoria Rd, London NW10	CB 1000M	40	13.8VDC	£70
FIDELITY		CB 2000M	40	13.8VDC	£90
FIDELITY		20001 FM	40	13.8VDC	£70
GRANDSTAND	Bee Ware Ltd, Ripon Way, Harrogate, N. Yorks	BLUEBIRD	40	13.8VDC	£90
GRANDSTAND		HAWK	40	13.8VDC	£80
GRANDSTAND		GEMINI	40	13.8VDC	£122
GREAT	Brittania Trading, Northern Rd, Sudbury, Suffolk	GT 858B	40	13.8VDC	£65
HARRIER	Dixons Photographic Ltd.	C8 MOBILE	40	13.8VDC	£49
HARRIER		CB X	40	13.8VDC	£89.99
HARVARD	Harris Overseas Ltd, Harvard House, 14-16 Thames Rd, Barking, Essex	400M	40	13.8VDC	£80
HARVARD		402 MPA	40	13.8VDC	£69.95
HARVARD		H403 GOOD BUDDY	40	13.8VDC	£50
HARVARD		420M	40	13.8VDC	£100
INTERCEPTOR	Chelsea CB Centre, 73-77 Britannia Rd, London	INTERCEPTOR	40	13.8VDC	£80
INTERCEPTOR		TC400	40	13.8VDC	£95
INTERCEPTOR		ONE HANDER	40	13.8VDC	£100
JOHNSON	Star Warehouse, Chalk Farm Rd, London	JOHNSON	40	13.8VDC	£50
JWR	Wolfe House, Norse Rd, Bedford MK41 0LF	M2	40	13.8VDC	£60
JWR		M3	40	13.8VDC	£90
KAISER	Kaiser Electronics Nevrotstrasse 21-25, Waldorf Baden, W. Germany	UK 40	40	13.8VDC	ETBA
LADYLINE	Market Drayton, Salop	QUASAR	40	13.8VDC	£50
LAKE	Roger D, 831 Mansfield Rd, Nottingham NG5 3GF	MANXMAN 850	40	13.8VDC	£32.50
LAKE		MANXMAN 950	40	13.8VDC	£37.50

Remember — Shop around as prices can vary



# REFERENCE

On the following pages you will find listed just about all of the CB rigs available for use on UKFM CB. We have split the reference section into three parts; mobile base and portable to make individual rigs easier to find.



SQUELCH	NB SWITCH	ANL SWITCH	MIKE GAIN	RF GAIN	tone control	S/RF METER	S/RF LED R/O	HI/LO OUTPUT	PA FACILITY	EX. SPEAKER JACK	TX IND. LIGHT	RX IND. LIGHT	CH 9 SWITCH	MIKE POSITION	COMMENTS	
•				•										FL		ALBA
•				•	•		•	•	•					SL	Report Feb '82	AMSTRAD
•			•	•	•			•						SL		AUDIOLINE
•			•		•			•							Report Feb '82	AUDIOLINE
•					•			•						-		AUDIOLINE
•				•	•			•						FL	Great GT868 chassis	BARRACUDA
•			•	•	•			•						FL	Cybernet chassis	BARRACUDA
•			•		•			•						-	Report Feb '82	BINATONE
•					•			•						FL	Report Dac '81	BINATONE
•			•	•	•			•						SL		BINATONE
•				•	•			•				•		SL		BRAEMAR
•				•	•			•						FL	Colt, MidInd, Maxcom lookalike	COBRA
•				•	•			•						FL		COLT
•					•			•						FL		COMMTRON
•				•	•			•						FL		COMMTRON
•					•		•	•						SL	Ultra compact performer	CYBERNET
•				•	•		•	•				•		FL		CYBERNET
•				•	•		•	•				•		FL		CYBERNET
•				•	•			•						FL	Report July '82	DNT
•				•	•			•						FL		ELFTONE
•					•			•				•		FL		EUROCOMM
•					•			•						SL		FIDELITY
•			•	•	•			•						FL	Report March '82	FIDELITY
•			•	•	•			•								FIDELITY
•				•	•			•						SL		GRANDSTAND
•				•	•			•				•		SL		GRANDSTAND
•	•			•	•		•	•						SL		GRANDSTAND
•				•	•			•						FL	Same as Johnson rig	GREAT
•				•	•			•						SL	Report Feb '82	HARRIER
•			•	•	•			•				•		SL		HARRIER
•				•	•			•				•		FL		HARVARD
•				•	•			•						FL		HARVARD
•				•	•			•						SL		HARVARD
•				•	•			•						SL		HARVARD
•				•	•			•				•		SL		INTERCEPTOR
•		•		•	•			•				•		FL		INTERCEPTOR
•			•	•	•		•	•				•		FL		INTERCEPTOR
•				•	•			•						FL	Great GT868 chassis	JOHNSON
•				•	•			•						FL		JWR
•				•	•			•						FL		JWR
•				•	•			•				•		FL		KAISER
•				•	•			•						FL	First marine rig	LADYLINE
•				•	•			•						SL		LAKE
•				•	•			•						SL		LAKE

considerably from CB shop to CB shop!

# MOBILES

NAME	ADDRESSES	MODEL	NO. OF CHANNELS	SUPPLY VOLTAGE	RETAIL PRICE
LCL	LCL Imports Ltd, 101 Dixons Green, Dudley, W. Midlands	2740	40	13.8VDC	£80
LCL		COMMUNICATOR	40	13.8VDC	£95
LOWE	Low Electronics, Matlock, Derbyshire	TX40	40	13.8VDC	£50
MAGPIE	Magpie Electronics PO Box 35, Andover, Hants SP10 2LG	AUTOSCAN 6000	40	13.8VDC	£120
MAXCOM	A.M. Telecommunications, AM House, 17 Shepherds Way,	4E	40	13.8VDC	£50
MAXCOM	Rickmansworth Herts.	6E	40	13.8VDC	£48
MAXCOM		20E	40	13.8VDC	£50
MAXCOM		21E	40	13.8VDC	£50
MAXCOM		16E	40	13.8VDC	£40
MICROLINK	Warman-Freed Ltd, 82 Golders Gr Rd, NW11	CB401	40	13.8VDC	£115
MIDLAND	Plustronics Ltd, Hempstalls Ln, Newcastle-under-Lyme, Staffs.	2001	40	13.8VDC	£70
MIDLAND		3001	40	13.8VDC	£80
MIDLAND		4001	40	13.8VDC	£90
MIDLAND		2001 T	40	13.8VDC	£100
MERCURY	EMS Communications, Grove Street, Wantage, Oxon. LX12 7AD	1040	40	13.8VDC	N/A
MUSTANG	KB & Co. Ltd, 202 Cheetham Hill Rd. M/cr.	CB1000	40	13.8VDC	£49.95
MUSTANG		CB2000	40	13.8VDC	£59.95
MUSTANG		CB3000	40	13.8VDC	£69.95
NATO	Roger D, 831 Mansfield Rd, Nottingham NG5 3GF	40M	40	13.8VDC	£69.95
NATO		2000	40	13.8VDC	£189.95
OSCAR	S.M.C. Osborne House, Totton, Southampton	OSCAR1	40	13.8VDC	£85
RADIOMOBILE	Goodwood Wks, North Circular Rd, London NW2 7JS	201	40	13.8VDC	£80.90
RADIOMOBILE		202	40	13.8VDC	£120
REFTEC	RF Technology, Leyton Avenue Ind. Est. Mildenhall, Suffolk	934	20	13.8VDC	£200
ROTEL	Rotel Hi-Fi, 2-4 Erica Rd, Stacey Bushes, Milton Keynes	RVC 220	40	13.8VDC	£50
ROTEL		RVC 230	40	13.8VDC	£70
ROTEL		RVC 240	40	13.8VDC	£90
SAPPHIRE	CB Services, 97 Crab Lane, Harrogate, North Yorks.	2000X	40	13.8VDC	£68
SHOGUN	Colliers Fm, Freith, Hanley-on-Thames, Oxon. RG6 6NR	SHOGUN	40	13.8VDC	£100
SIRTEL	24 Alfrie Sq, Off Maxwell Rd, Woodston Ind. Est, Peterborough	SEARCHER	40	13.8VDC	£40
SPIRIT	Martellor Sound Ltd, Haywood Way, Ivyhouse Lane, Hastings	SPIRIT	40	12VDC	£100
STEEPLETONE	Park End Works, Croughton, Nr. Brackley, Northants	SCB1FM	40	13.8VDC	£103
TANDY	Tame Way Tower, Bridge St, Walsall, Staffs	TRC2001	40	13.8VDC	£80
TANDY		TRC2002	40	13.8VDC	£70
TANDY		TRC2000	40	13.8VDC	£100
TANDY		TRC1004	40	12VDC	£79
TANDY		TRC2003	40	13.8VDC	£130
TENVOX	Vexon Audio Ltd, Abingdon, Oxon	TENVOX	40	13.8VDC	£100
UNIDEN	Cravanmaster Ltd, 31 Madoc St, Mandeville	UNI ACE 100	40	13.8VDC	£75.95
UNIDEN		UNI ACE 200	40	13.8VDC	£79.95
VIPER	Radio 88, Barking, Essex	VIPER 88	40	13.8VDC	£78A
WAGNER	Knight Communications Ltd Unit 19 Britannia Est. Leagrove Rd. Luton	9000	40	13.8VDC	£59.95
WAGNER		COMPACT 40	40	13.8VDC	£25
WESTERN	Western Electronics, Fairfield Estate, Louth, Notts.	COMPACT 40	40	13.8VDC	£34.50
YORK	Sulkin (UK) Ltd, 73 Grosvenor Street, London W1X 9DD.	JCB 861	40	13.8VDC	£69
YORK		JCB 863	40	13.8VDC	£89

# REFERENCE



SQUELCH	NB SWITCH	AML SWITCH	MIKE GAIN	RF GAIN	STONE CONTROL	S/RF METER	S/RF LED R/O	H/I/O OUTPUT	PA FACILITY	EX. SPEAKER JACK	TX IND. LIGHT	RX IND. LIGHT	CH 9 SWITCH	MIKE POSITION	COMMENTS	
•					•	•				•				FL		LCL
•					•	•				•				FL		LCL
•					•	•				•				FL		LOWE
•			•		•	•			•	•			•	FR	New Rig	MAGPIE
•					•	•			•	•				FL	Maxon chassis	MAXCOM
•					•	•				•				FL		MAXCOM
•					•	•				•				FL		MAXCOM
•					•	•				•				FL		MAXCOM
•					•	•				•				FL		MAXCOM
•					•	•				•				FL		MAXCOM
•					•	•				•				FL		MAXCOM
•					•	•				•				FL		MICROLINK
•					•	•				•				FL		MIDLAND
•					•	•				•				FL		MIDLAND
•					•	•				•				FL		MIDLAND
•					•	•				•				FL	The talking rig	MIDLAND
•					•	•				•				FR	Report June '83	MERCURY
•					•	•				•				FL		MUSTANG
•					•	•				•				FL		MUSTANG
•					•	•				•				FL		MUSTANG
•	•	•			•	•				•				SL		NATO
•					•	•				•				SL		NATO
•					•	•				•				SL	Cybernet 134 chassis	OSCAR
•					•	•				•				FL	Cybernet chassis	RADIOMOBILE
•					•	•				•				FL	Report Sep '81	RADIOMOBILE
•					•	•				•				FR	934 MHz--Still waiting!	REFTEC
•					•	•				•				FL	Cybernet chassis	ROTEL
•					•	•				•				FL	Cybernet chassis	ROTEL
•					•	•				•				SL	Cybernet chassis	ROTEL
•					•	•				•				FL		SAPPHIRE
•					•	•				•				SL	Up market elegance Report June '82	SHOGUN
•					•	•				•				SL		SIRTEL
•					•	•				•				FR		SPIRIT
•					•	•				•				FL		STEEPLETONE
•					•	•				•				SL		TANDY
•					•	•				•				SL		TANDY
•					•	•				•				SL		TANDY
•					•	•				•				SL		TANDY
•					•	•				•				—		TANDY
•					•	•				•				SL		TENOVIX
•					•	•				•				SL		UNIDEN
•					•	•				•				SL	Report coming soon	UNIDEN
•					•	•				•				FL		VIPER
•					•	•				•				FL		WAGNER
•					•	•				•				FL		WAGNER
•					•	•				•				FL		WESTERN
•					•	•				•				SL	Report Oct '81	YORK
•					•	•				•				SL	Cybernet 134 chassis	YORK

# REFERENCE

# BASE STATIONS

# BASES



NAME	ADDRESSES	MODEL	NO. OF CHANNELS	SUPPLY VOLTAGE	RETAIL PRICE
DNT	Radiotechnics Ltd, Grove Way, Bel Royal, St Lawrence Jersey CI.	B40	40	240VAC	£TBA
DNT		B2740	40	240VAC	£TBA
DNT		B5040	40	240VAC	£TBA
FIDELITY	Fidelity Radio Ltd, Victoria Rd, London NW10	CB 300M	40	240VAC	£TBA
GRANDSTAND	Bee-Ware Ltd, Ripon Way, Haregate, N.Yorks	BASE	40	240VAC	£220
HARRIER	Dixons Photographic Ltd,	CB HQ	40	240VAC	£130
HARVARD	Harris Overseas Ltd, Harvard House, 14-16 Thames Rd, Barking Essex	H407	40	240VAC	£125
HARVARD		H401	40	240VAC	£149.95
JOHNSON	Star Warehouse Chalk Farm Rd, London	XK 2000	40	240VAC	£99
JWR	Woolfe House, Norse Rd, Bedford	DIPLOMAT	40	240VAC	£194
MIDLAND	Plustronix Ltd, Hempstalls Ln, Newcastle-under-Lyme, Staffs.	76-200	40	240VAC	£150
MURPHY	Murphy Electronics, Wembley, Middlesex	BASE	40	240VAC	£100
SPIRIT	Martello Sound Ltd, Haywood Way, Ivyhouse Lane, Hastings, Sussex	SPIRIT	40	240VAC	£100
WAGNER	KLIGHT Communications Ltd, Unit 19 Britania Estate, Laegrove Rd, Luton LU3 1RJ	BASE	40	240VAC	£150

# PORTABLES

NAME	ADDRESSES	MODEL	NO. OF CHANNELS	SUPPLY VOLTAGE	RETAIL PRICE
BEAR	Air Bear(UK) Ltd, Wortley, Sheffield	RHB 35	3	BATTERIES	£44
BINATONE	Binatone House, Beresford Avenue, Wembley, Middlesex	LONGRANGER	40	BATTERIES	£59.95
DNT	Radiotechnics Ltd, Grove Way, Bel Royal, St Lawrence Jersey CI	HF 12/3	3	BATTERIES	£47.55
ELFTONE	4 Berkeley Ave, Wembley, Middx.	CB30	2	BATTERIES	£TBA
ELFTONE		P-3	3	BATTERIES	£TBA
HARRIER	Dixons Photographic Ltd	WT1	2	BATTERY	£25
HARRIER		WT2	40	BATTERY	£59.99
HARVARD	Harris Overseas Ltd, Harvard House, 14-16 Thames Rd, Barking Essex	0-2-0	2	BATTERY	£20
HARVARD		410T	40	8xAA cells	£69.95
HARVARD		10-4 CONVOY	2	BATTERY	£19.95
HARVARD		H6	2	BATTERY	£29.95
KAISER	Kaiser Electronics Nevrotstrasse 21-25, Waldorf Barden, W. Germany	CBX40	40	BATTERY	£TBA
MAXCOM	A.T.M. A.M. House 9a Olds Approach, Tolpits Lane, Watford Herts.	7E	3	BATTERY	£TBA
MIDLAND	Plustronix Ltd, Hempstalls Ln, Newcastle-under-Lyme, Staffs.	75-720	40	12VDC	£59.95
TANDY	Tame Way Tower, Bridge St, Walsall	TRC1001	40	BATTERY	£119

# HAND HELDS



It's much more fun breaking from home when the car's too cold to start - and it saves petrol!



SQUELCH	NB SWITCH	ANL SWITCH	MIKE GAIN	RF GAIN	STONE CONTROL	S/RF METER	S/RF LED R/O	HI/LO OUTPUT	PA FACILITY	EX. SPEAKER JACK	TX IND. LIGHT	RX IND. LIGHT	CH 9 SWITCH	MIKE POSITION	COMMENTS
•						•								FL	DNT
•						•								FL	DNT
•						•								FR	DNT
•			•		•	•		•	•					SR	Report May '82 FIDELITY
•			•		•	•		•	•		•			FL	The most expensive base! GRANDSTAND
•			•		•	•		•	•		•			FL	Report May '82 HARRIER
•			•		•	•		•	•		•			FL	Report May '82 HARVARD
•			•		•	•		•	•		•			FL	New base from Harvard HARVARD
•			•		•	•		•	•		•			FL	Cheapo base JOHNSON
•	•		•		•	•		•	•					-	JWR
•			•		•	•		•	•					FL	MIDLAND
•			•		•	•		•	•					FL	MURPHY
•			•		•	•		•	•		•			FR	SPIRIT
•			•		•	•		•	•		•			FL	WAGNER

Why not get out and about with a portable rig? Not only is it fun, there's fresh air too.



SQUELCH	NB SWITCH	ANL SWITCH	MIKE GAIN	RF GAIN	STONE CONTROL	S/RF METER	S/RF LED R/O	HI/LO OUTPUT	PA FACILITY	EX. SPEAKER JACK	TX IND. LIGHT	RX IND. LIGHT	CH 9 SWITCH	MIKE POSITION	COMMENTS
•											•			-	BEAR
•								•		•	•			-	BINATONE
•														-	DNT
•														-	Report June '82 ELFTONE
•														-	ELFTONE
•														-	HARRIER
•											•	•		-	HARRIER
•						•		•						-	HARVARD
•						•		•			•	•		-	Report April '82 HARVARD
•						•		•			•	•		-	HARVARD
•						•		•			•	•		-	HARVARD
•						•		•			•	•		-	KAISER
•						•		•			•	•		-	MAXCOM
•						•		•			•	•		-	MIDLAND
•						•		•			•	•		-	TANDY

# ANTENNA CHECKLIST

Here's a brief intro

**Name**  
All antennas have a number or name. Or both. Here we tell you what it is.

**Construction**  
Most mobile antennas are made of stainless steel and most home based ones are made of aluminium. This is not always the case though. There are fibre glass mobiles

The Home Office specs for CB antennas are lean and bordering on the mean. Still within that basic framework manufacturers have come up with some good designs. This newly laid out antenna checklist should help you

NAME	ADDRESSES	MODEL	CONSTRUCTION	LENGTH	MAX POWER	TYPE	IMOUNT	PRICE RANGE
ALLCOM		DPA 2UK	AL	1.5	100	M	-	E
AMSTRAD	Amstrad Consumer Electronics, 1-7 Garman Rd, London N17	CBA 1500	SS	1.5	-		Various	C
ANTENNA INC.		125 10 Telocomm	SS	0.9	-	M	3/4ths	D T G C C C
		Super Persuader	SS	1.5	-	M	Mag	
		MR511	SS	1.2	-	M	Mag	
		M710	SS	1.6	-	M	3/4ths	
		AS M125	SS	1.14	150	M	3/4"	
		AS M128	SS	1.14	150	M	-	
ANTENNA SPECIALISTS	Antiference Ltd, Aylesbury, Bucks HP19 3BJ	AS M131	SS	1.14	150	M	gutter	D D D D D D D E C
		AS MR 440	SS	1.2	100	M	mag	
		AS MT 178	SS	1.2	150	M	mag	
		AS M510	SS	1.2	200	M	3/4"	
		AS M2000	SS	1.5	150	M	3/4"	
		AS 9812	SS	1.2	150	M	mag	
		IC 85	SS	1M	-	M	mag	
		IC 80	SS	1M	-	M	spring-based mag	
		IC 15	SS	1	-	M	trunk	
ANTLER	Shakespeare, Performance Antennas, Betton Rd, Market Drayton, Salop	IC 20	SS	1 1/2	-	M	roof	D D E D
		IC 30	SS	1	-	M	gutter	
		IC 40	SS	1 1/2	-	M	mirror	
		IC 80	SS	1 1/2	-	M	mag	
ARCHER	Tandy Corp., Tame Way Tower, Bridge St, Walsall, W.Mid.	21-904	SS	0.5	50	M	3/8" snap	D
ARMSTRONG	Stateside Trading Ltd., Audley Ave, Newport, Shropshire.	SAM 10	SS	1.06	1,000	M	surface	F F F G G G G
		SAM 20	SS	1.06	1,000	M	surface with spring	
		TAK 10	SS	1.06	1,000	M	boot lip	
		TAK 20	SS	1.06	1,000	M	boot lip with spring	
		MAG 10	SS	1.06	1,000	M	magnetic	
		MAG 20	SS	1.06	1,000	M	magnetic with spring	
		BDY 20	SS	1.06	1,000	M	side	
		PEC 20	SS	1.06	1,000	M	side & fold over & quick disconnect	
AVANTI	Avanti, 132 Penistone Rd Nth, Sheffield, Yorks.	AV 241 (Moonraker)	SS	1.22	-	M	stud	D E E G
		AV 241 T	SS	1.22	-	M	trunk	
		AV 241 M	SS	1.22	-	M	mag	
		AV 241 MM	SS	1.22	-	M	super mag	
BADLAND	Badland, Roeten Ind Est, Providence St, Lye, Stourbridge.	B10	SS	1.22	-	M	mag	G
BANDIT	Bandit, Rougham Ind Est, Bury St Edmunds, Surrey.	B10	SS	1.42	-	M	mag	G F F E E D D D D
		B15	SS	0.81	-	M	mag	
		B16	SS	1.22	-	M	mag	
		B20	SS	1.42	-	M	mirror	
		B30	SS	1.42	-	M	drill-thru	
		B30	SS	1.22	-	M	drill-thru	
		B40	SS	1.42	-	M	various	
		B40	SS	1.22	-	M	various	
		B50	SS	1.42	-	M	various	
		B50	SS	1.22	-	M	various	
		B50	SS	1.22	-	M	various	
C. BRIT	C Brit, Unit 3.5 East Lane, Wembley, Middx.	Stingray	AL	1.5	500	B	poje	H C
		Whiplash	SS	1.5	25	M	3/4"	
CT INTERNATIONAL	CT International, CTE (UK) Ltd Unit 3, Mitcham Ind Est, B5 Streatham Rd, Mitcham, Surrey.	MG27	SS	0.91	-	M	mag	C
DIAL-A-MATCH		Rubber Duck	R	0.3	-	M	3/8"	C C F F E E C
		530 (Cherokee)	SS	0.81	-	M	-	
		531 HBF	SS	0.61	-	M	-	
		531 SMF	SS	0.81	-	M	-	
		540	SS	1.22	-	M	-	
		541 HBF	SS	1.22	-	M	-	
		541 SMF	SS	1.22	-	M	-	
		520 (Halfbreed)	SS	1.27	-	M	-	

## duction to the world of antennas and what we tell you in our checklist.

and stainless steel home based antennas.

### Length

The longer the better is always my motto. As long as it's not over 1.5 m. Otherwise it's illegal. We tell you the exact length.

### Maximum power

This is given as a guide only. The law allows for a maximum

two watts. However, the higher the maximum power figure given the sturdier the antenna will be.

### Type

It's no use buying a home base antenna if you want to use your rig from the car. We tell you which are which Mobile or Base. At the moment the number of mobile

antennas far outweigh the number of home based ones. But there are more and more home base antennas coming out to the market.

### Mount

The majority of mobile antennas are held in place by a magnet - these are called mag mounts. Others are attached by means of a clamp

to the boot or edge of the roof. Some are drill-through antennas which are just the same as normal car radio aerials.

Home based antennas are poles, tripods or gutter mounts. Tripods are free standing and gutter mounts are attached in a way similar to trunk or bootmounts.

Key:	C: £10 - £14.99	G: £30 - £39.99	AL - Aluminium	B - Base
Price Bands	D: £15 - £19.99	H: £40 Plus	FG - Fibreglass	
A: £1 - £4.99	E: £20 - £24.99	Construction	Application	Note: Prices are given as a guide only.
B: £5 - £9.99	F: £25 - £29.99	SS - Stainless Steel	M - Mobile	

NAME	ADDRESSES	MODEL	CONSTRUCTION	LENGTH	MAX. POWER	TYPE	MOUNT	PRICE RANGE
DIGITEK UK LTD	179-181 Streatham Rd, Mitham, Surrey	Falcon 27	SS	1.6	-	M	various	D
DIXONS	Dixons Photographic	Harrier	SS	0.9	-	M	Mag	D
HOT ROD 200	Hot Rod 200, Stateside Trading Ltd, Audley Avenue, Newport, Shropshire	FM UK	SS	1.27	-	M	3/4ths	B
FREEMAN & PAROOW	Freeman & Parow, Tything Rd, Arden Forest Ind Est, Alcester Warwick	The Invader The Thunderpole	AL AL	1.6 1.6	250 500	B B	pole pole	E F
CB SERVICES	87, Crab Lane, Harrowgate, N. Yorks HG1 3BD	Bullwhip Knuckleduster	SS AL	1.5 1.5	- -	M B	various -	C D
MIDWEST		Dial-a-tune Dial-a-tune	SS SS	0.61 1.22	500 -	M M	various various	C D
MOCOM	Mocom, Moto Communications Ltd, 140 Sandy Lane, Camphill Birmingham	Revco	SS	1	-	M	various	B
MOTOROLA	Motorola, Taylors Rd, Stotsold, Hitchin, Herts.	EC106M	-	1.6	-	M	-	F
OCT.	Unit 1 Earlsfield Lane Ind. Estate, Grantham, Lincs	K40 Z27	SS SS	1.4 1.46	500 200	M M	various various	G B
PAN INTERNATIONAL		Pan Mobile 280	SS	1.25	-	M	clamp	-
PANORAMA	Panorama, 73 Wadham Rd, London SW15 2LS	CB27	-	1.22	-	M	mag	B
PRIDOW		KT40	SS	1.5	-	M	trunk	C
SHIRA		SYS 206M SYS 203C MA 62	SS FG -	1 0.75 0.91	- - -	M M M	mag trunk -	C C C
SIRTEL	Sirtel, 24 Alfric Sq, off Maxwell Rd, Woodston Ind. Est, Peterborough	GP Messenger GP Signal Keeper	SS SS	1.5 1.5	- -	B B	clamp tripod	E F
SMC	Oscar, South Midlands Communications, Osborn House, Totton Southampton, SO4 4DN	Oscar Base CBA 11GP Oscar Base IIVIS Oscar IICM Oscar IICE Oscar IINE  Oscar IISE  Oscar TMCAS	SS SS SS SS SS  SS  SS	1.6 1.6 1.2 1.2 1.5  1.5  1	- - - - -  -  -	B B M M M  M  M	- - mag foldover base 'pull-up' foldover base 'locking-collor' foldover base trunk	F F D B C  C  B
SPYDER		Spyder	AL	1.5	-	B	pole	B
TAGRA	Europasonic (UK) Ltd, Britannia Works Building, Sherbourne St, Manchester	T40	SS	1.4	500	M	various	E
THOROBRED	ZL Communications, Cantley, Nr. Norwich, Norfolk	261 Z27 Locktune	SS SS SS	1.6 1.6 1.6	- - -	M M M	various 1/4" various	C B C
WITCHSTICK	CJM Motor Factors, Hill Farm Ave, Leavesden, Watford, Herts. 09273-73646	Witchstick homebase	AL	1.6	-	B	-	E
WTA ELECTRONICS	111 Cromer Rd, Helleston, Norwich, Norfolk	Wot Pole Wot Mag	AL SS	1.5 1.5	- -	B M	pole mag	C C
VAN ORDT	Van Ordt, Knight CB Specialist, 204 Dunstable Rd, Luton, Beds	Audio King AKO-100	SS	1.5	2000	M	1/2"	G



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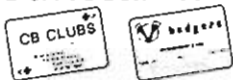
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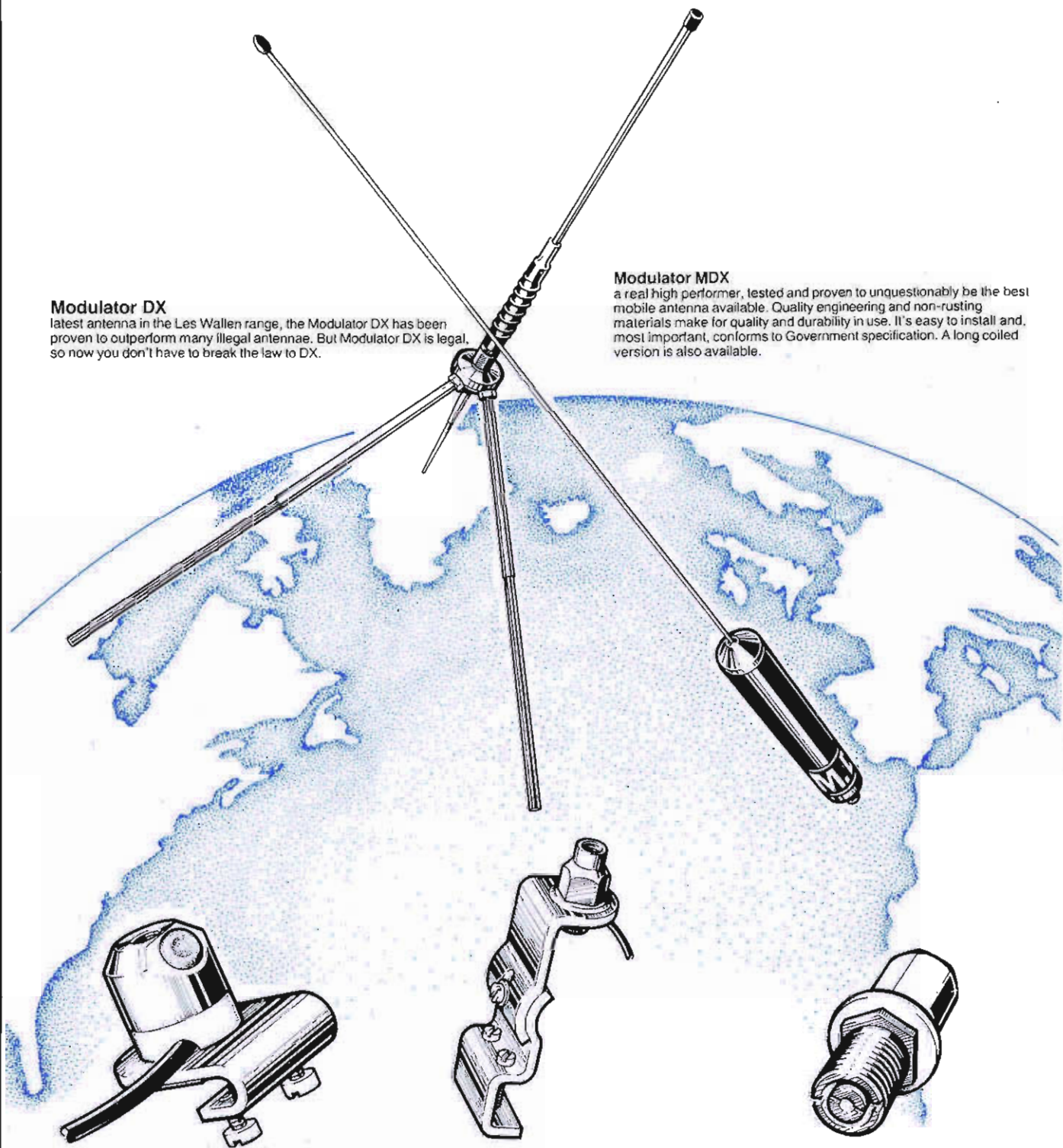
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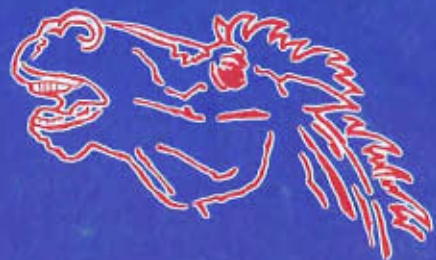
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