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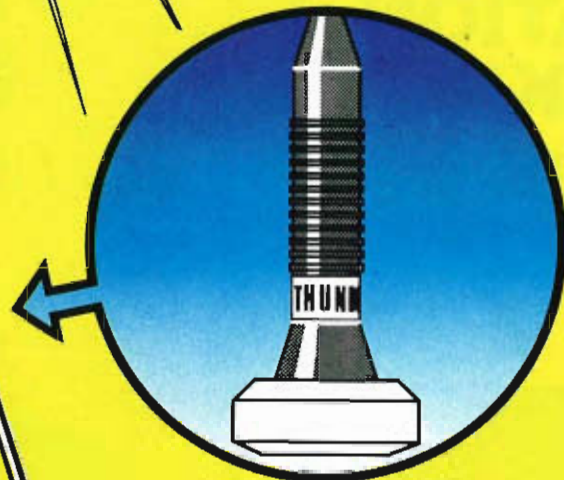
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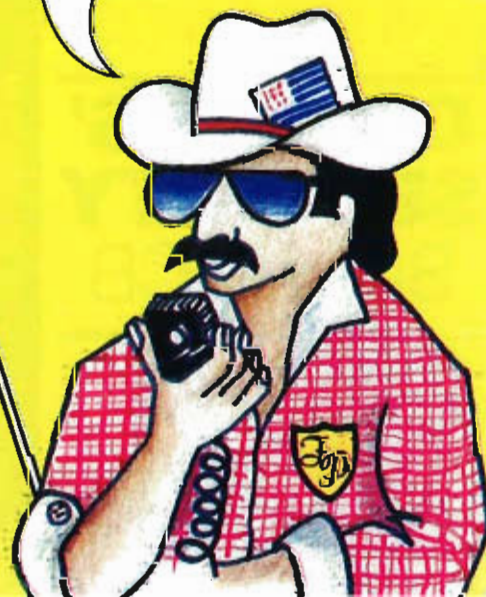
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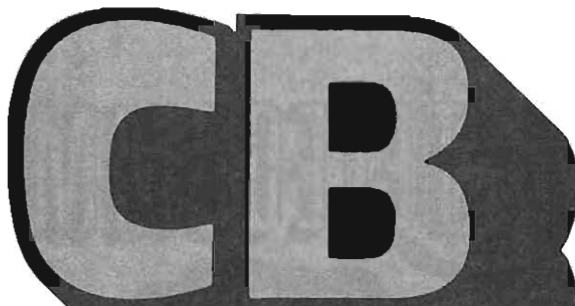
Design and Origination
by MM Design and Print
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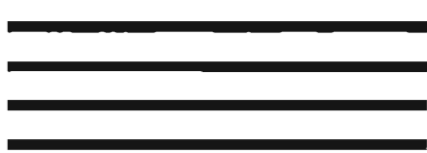
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David Lawrenson

Consultant Editor
Chris Adam-Smith

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Cliff Wilson



Citizens' Band



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ABC Cover this Month

After you've finished ogling at the wonderful Cybernet Beta 3000 Professional rig which adorns our front cover, you might like to chew on this little anecdote . . .

On the outskirts of our village stands some playing fields, where, on fine Sundays, the young men of the village play football. Sometimes they are joined by all manner of small furry rodents that live in the woods adjoining the fields. On the first fine Sunday after winter had finally departed, the young men of the village went out to the playing fields for their traditional game of football. Alas when they arrived at the edge of the village they discovered that the playing fields had vanished, replaced by acres of tarmac that made up the new by-pass! This just goes to show that THE BEST PLAYED LANDS OF MICE AND MEN CAN SOMETIMES GO ASTRAY!!!



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

CITIZENS' BAND, 146 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 & Sons Ltd, Kingston-upon-Thames, Surrey.

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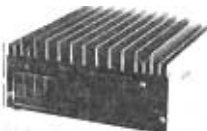
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Features hybrid technology for
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TELECOMMS



UPDATE



NEWS FROM THE WORLD OF CB

NEWS FROM THE WORLD OF CB

NEWS FROM THE WORLD

Probably one of the major talking points among Cbers, after TVI and Wallies, is 934. Opinion seems to be wide and varied on the advantages and disadvantages of this frequency, but to be fair it is still very early days to be drawing any firm conclusions. However, there can be no doubt that many people are interested in it and its possibilities, with a large body of opinion convinced that it will be the saviour of British CB.

We have always tried to keep you, the readers, informed as to what's going on, so we don't apologise for perhaps repeating

information or updating announcements. On this month's news page you'll see references to the changes in the Home Office specifications, which in turn has led to another postponement of the Grandstand launch.

Now if you've been reading Mack the Hack (and let's face it who doesn't) you'll be aware that he borrowed a 934 and has reported his findings in his column. Well, the shop where he got it from, 934 Communications, and Reftec themselves, have had many enquiries, so it does seem as though things are hotting up.

With this in mind we sent Chris Petersen out and about in search of the elusive Reftec, and with a bit of luck he should be starting the first part of an in depth profile next month. However, we'd like to hear what you think of the whole 934 situation.

OK so there may only be four to five hundred rigs throughout the country, but you don't have to own a rig to air your views. What we want is a real forum on the subject, and who knows we may be able to start a regular 934 column. So start putting pen to paper.

David Lawrenson

Spot The Flea Winners

Attention all hedgehog and flea lovers, and there are a lot of you about judging by the response to our July 'Spot The Flea' competition. If you remember, we said there was a hidden flea on Branston the hedgehog, and you had to mark the spot with an X.

Well, the CB staff were scratching around for ages trying to find a pair of winners. Then just as your Editor was about to go away with one of the little blighters in his ear, up pops Zoltan Ritter of Lostwithiel in Cornwall to nail the



invisible one. Then only a whisker away was Steven Case of Cheetham in Manchester, so I suppose we'd better dispatch a Thunderpole Mark II to each of them.

Comiserations to the hundreds who entered but didn't make it to the

winners enclosure, in particular to Stephain Gubby of Kingston in Surrey who was so close that we had to bring in the experts to carry out an inspection via a lightbox. Anyway Stephain, we'll send you some stickers and badges so you won't feel too bad.

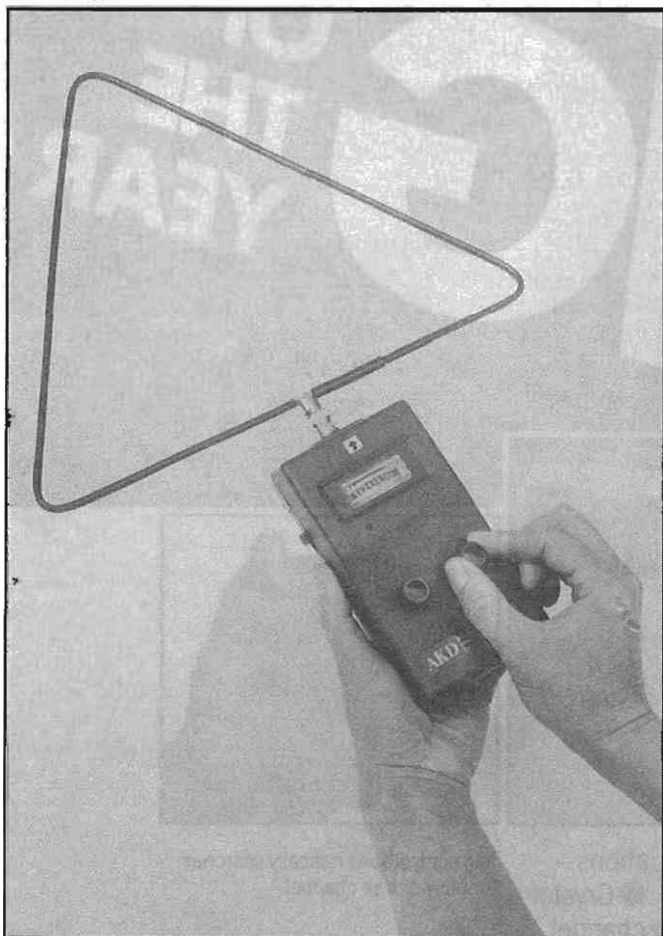
Hedgehog Stickers

If there are any hedgehog lovers out there who still haven't got a Citizen's Band 'Give A Hedgehog A Break' sticker, shame on you. But all is not lost.

If you want one, all you have to do is simply send us a stamped addressed envelope — at least four inches by four inches — and we'll do the rest. Remember to mark your envelopes 'Hedgehog Offer' and post it to Citizen's Band, 145 Charing Cross Road, London WC2H 0EE.



Pointing In The Right Direction



Here's a handy little tool from AKD which could prove useful in the hands of breakers. It is a precision direction finder (PDF 11) and can be used for tracing interference bugs, case emissions and a hundred other things connected with locating radio frequency.

The unit was originally manufactured for British Telecom as a tool for tracking 27MHz illegal operation, and in fact they already have a large number of these units in service. The PDF 11 is extremely accurate at short range on 27MHz, and in a block of flats, for example, apparently it's possible to pinpoint the precise location

of a transmission, be it FM, AM, SSB or CW.

The special antenna supplied is for use at ranges of up to 50 metres (with transmissions of two watts ERP) although any standard directional antenna may be used for greater distances. Currently designed for 27MHz, it is expected that later versions will cover other specific frequencies.

The units currently retail at £59.95, and are available from Telecomms at 189 London Road, North End, Portsmouth (Tel 0705 662145). If you don't want to buy one you could always turn to our competition page and try to win one!

The First Lord of CB

Talk about the respectability of CB, the Southern Emergency Citizens Operators Network (SECON) have just informed us that Lord Montagu has agreed to become the Honorary President of their organisation. And to mark the event, a cavalcade of vehicles from the various branches of the organisation made a special trip to Lord Montagu's Motor Museum to present

him with an official plaque.

SECON was formed by David Kingston in Seaford, East Sussex in November 1981 and have chalked up many successes for their monitoring service. David is now the chief co-ordinator and judging from the many press cuttings he sent us, is doing a very good job.

Does this now mean that we can expect to see Lord Montagu's motors all fitted with mobile rigs?

Frequency Update

Many 934 enthusiasts will already be aware of the Home Office changes in specifications regarding this frequency. However, for the benefit of those who may be a little puzzled, we'll outline again what these changes are, and what they mean.

Basically, each of the 20 channels on the 934 frequency will be moved down by 12.5Mhz to bring them in line with a recently agreed channel plan for Europe. However, all the other technical requirements will remain unchanged.

These changes were made after consultation with the two suppliers who are actively involved in 934Mhz CB, Reftec, who manufacture the only sets currently available, and Grandstand who are about to go into production. The existing 934/1 units, as supplied by Reftec, may still be legally used until the end of 1987, but the company have already brought out a modified version, the 934/2. The 934/1 models can still be supplied with the earlier frequencies until 30/4/1984.

Anyone with a 934/1 who thinks he may be missing out need not worry. Reftec will convert these sets to conform to the new specifications for a nominal charge.

The Poseidon Venture

EMS who brought out the Mercury 1040 portable earlier this year, have now introduced a base unit with a fitted push button selective calling facility. Called the Poseidon, it has cat-call and answer-back features fitted as standard with additional call facilities available.

This British designed unit has 40 channels, a horn/light paging operation and gives four watts output on 27Mhz. EMS have fitted their own noise limiter, and it has a PA intercom facility and an optional telephone handset. The Poseidon can be operated from the mains or a 12 volt DC supply.

Ind Telc Distributor

Sharmans Wholesale of Manchester have just been appointed sole importers of the Ind Telc range of power supplies and linears. The range consists of three models of power supplies, three, five and 10 amp, and five models of linears ranging from 25 watts through to 200 (which is transparent so that the circuit board is visible). For further details of the products, the man to contact is Mr. Murli Sharma on 061 834 9571.

AUTOSCAN 5000

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'The technical performance is unimpeachable... the designers have got it right.'
CB Magazine JUNE 1983



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- Beautifully styled
- British designed and tested in British conditions
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Mic control automatically searches for busy or free channel

What CB Magazine said in April...

All in all, we have to say that this is the best rig we have tested to date.

At no time during testing was there the slightest evidence of swamping, blocking, cross-modulation, bleed-over in spite of 4 giant twigs within a 200 yard radius.

The transmitted audio quality was excellent, crystal clear with real punch to it making any sort of power or processor mike totally unnecessary.

Inside, you will find the kind of construction normally found in computers and professional equipment. A marked contrast to imported rigs.

The performance has been a revelation compared to anything we have seen before, and what's more it's BRITISH!

...and in June.

The technical performance is unimpeachable, with an exceptionally high degree of immunity to bleed-over.

The designers of the Magpie Autoscan 5000 have got it right and during our tests we could detect no signs of desensing, bleed-over or any other misbehaviour despite severe provocation.

From the mailbag

J.W. from Sheffield

"... I must congratulate you on your Magpie. I did not think it possible to obtain anything of this standard. It has cut out bleed-over which here in Sheffield is one big problem..."

S.A.M. from Suffolk

"... My son brought an Autoscan 5000 for me to try... Breakers came in from all over the place and remarked on the 100% clear modulation. How soon can you let me have one?..."

Send now for FREE colour brochure.



Magpie Electronics Ltd.

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UPDATE

Belated BeeWare

Eager 934 freaks will have to wait just a little longer for the BeeWare transceiver. Although we previewed this unit in May, the company have informed us that due to the frequency changes announced by the Home Office, and the inherent technical difficulties complying to that legislation, the product will not be available until October.

In case you have forgotten, BeeWare are launching a transverter which will change a 27Mhz rig into a 934. They aim to offer a complete package of a 27Mhz Bluebird rig and the LA83 for just over £200. You can buy the transverter for just under £200, but the package of the two sounds like a good buy. Look out for a test report because as soon as we get one we'll be reviewing it.



On Your Bike

Fourteen year old Christopher Walker is a breaker with a difference. Not content with just staying at home and scanning the airwaves, he prefers to go mobile on the highways and byways around his home near Barmouth on the West Coast of Wales. Trouble is that when some of his breaker buddies meet up with him on the road, they get a bit of a shock because Christopher rolls up on his push bike.

Chris has been keen on CB for a couple of years and as soon as it became legal he set about getting a licence and a rig. Being a pretty resourceful kind of chap he earned the money for the rig working on a summer fair, and then made a clamp to hold his CB between the handlebars of

his Chopper bike. He then acquired a 12 volt motorcycle battery which he put under the saddle and completed the job with an aerial on the back mudguard.

He is aware that using the mike while he is riding along can be dangerous, so he takes care not to travel too fast. Last year he was further able to combine his love of CB and cycling by organising a sponsored bike ride through his local radio club. Christopher himself covered 50 miles in dreadful weather to raise £120 which he split between the club and cancer research.

Incidentally Christopher's handle is Stray Cat, so is you're ever up in the Barmouth area why not call him up. But if you want to eyeball him don't forget to look out for a bike.

Thorobred Correction

I'm afraid it's sackcloth and ashes time here in the offices of your favourite magazine. In the July edition we published a review of the Thorobred antenna by our resident twig man Brian Wright. Unfortunately, poor old Brian was mis-informed about the price of the Thorobred and we had it down as costing £16, when the true price is £7.50.



Even at £16, Brian thought it 'not a bad price for a well made, easily tuned, above average performance antenna'. So at £7.50 we'll leave you to draw your own conclusions. Once again apologies all round, especially to the distributors Oct International Ltd.

934 Communications

It seems that our friend 'Mack The Hack' created quite a buzz when he took out a 934 rig and reported on it in his column. Apparently, many people

have been trying to trace the shop where he got it from. Well, Mack owes everything to Tony Lane at 934 Communications, 64 Footscray Road, Eltham, London SE9 (Tel 01 859 0933). If you want to know anything about the 934, then this is the shop for you.

Clubbing Together

Three breakers from Essex have informed us of their idea to form a national organisation for CB clubs. Philip Green, Alan Fox and Dave Bickers are the men behind the British Association of CB and Radio Clubs.

Their aim is to register as many clubs as possible and then produce a monthly newsheet in which clubs can announce their events. They also aim to try and organise national and

regional events, and issue a directory of member clubs. The association would issue five cards to each club, which would give them membership for any other club in the association and finally they hope to set up a QSL bureau.

If you want any more information on the Association then you can write to them at 11 Balmoral Road, Gidea Park, Romford in Essex.

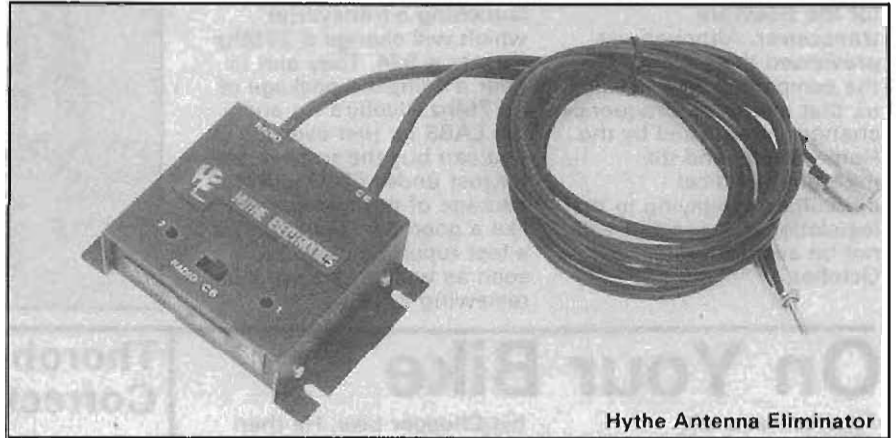
CB





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

A varied postbag of questions this month and Smart Alec takes them on. From TVI to planning permission for that home base antenna — you keep putting the questions Alec will keep finding the answers . . .



Hythe Antenna Eliminator

Hythe And Seek

Mr. F. Paul of Colchester has been trying to track down a gadget which converts a car aerial into a CB antenna.

Q I would be obliged if you would kindly let me have the address of the suppliers of the Hythe Antenna Eliminator, reviewed in March 1982. Also whether you have reviewed any others.

A You can purchase the eliminator if you write to Hythe Electronics (MHBB) at 29 The High Street, Hythe, nr Southampton. It now costs £13.80 and the company say they will normally dispatch the product within seven days of the money being received. Incidentally, we haven't tested or heard of a similar unit.

SA

French Teaser

We've had more enquiries about taking rigs over to the Continent, like this one from Tim Burton in Devon . . .

Q Next month I shall be going to France on holiday. I have a Midland 3001 legal CB rig, and I'm wondering if it is possible to take it with me. This is to say are French customs allowed to confiscate it, or will they merely inform me that if I use it I'll be breaking French laws?

A Once again I would refer to you Andy Giles' excellent article in the June Issue called 'Abroad With CB'. In case you haven't got the relevant issue I'll quote the important bits. 'The CB

system we have in Britain is unique and is not compatible with any other system in use throughout the world. Consequently, foreign customs officials do not allow British CB rigs into their countries, and they will usually confiscate them, sometimes permanently but often just until the end of the holiday when the rig can be collected at the border post.'

So there you have it Tim, it's not really worth the risk, because if you try and smuggle it through and you get caught you'll probably be in worse trouble, I mean do they still have the guillotine in France?

SA

April Copy

Yet another plea for help to you the readers from Tim Gough of Bury St Edmunds who apparently is searching for the magazine equivalent of the Holy Grail

Q I have been collecting issues of Citizens Band since January of this year. The trouble is I missed out on the April issue. I hunted around the shops and even wrote to the Back Issues department, but to no avail, even they had run out. I can't bear to think of my collection being incomplete, so I was wondering if any of those good ol' breakers had a copy of the April '83 issue which they no longer require. If they could send it on to me it certainly would be greatly appreciated, and I'm willing to pay for it if necessary. I have of course since placed a regular order with my newsagent.



The elusive Colt 295

A I should think so Tim. Well if there is someone out there who can bear the thought of parting with his precious copy then you can sent it on to Tim at Lackford Manor, Nr Bury St Edmunds, Suffolk IP28 6HW.

SA

Tracking Down A Colt

In the ever changing world of CB it's sometimes difficult to track companies down. Mrs. G. Cole of Billericay in Essex has just such a problem.

Q My son has a Colt 295 CB which worked perfectly until the last couple of months. It is still under guarantee, but there is no British address on the instruction booklet or box to contact for repair. I wrote to the address for Colt given in your magazine, Shellpost of Bury, but my first letter was ignored and the second returned saying they were no longer at that address. Where do I go from here?

A To nearby Manchester Mrs Cole, where you will find the new distributors of Colt. They are KB and Co, 202 Cheetham Hill Road, Manchester, who are the people who also handle the Mustang rigs.

SA

Communications Breakdown

My motto is much the same as that of Robert the Bruce and his pet spider. You know, if at first you don't succeed try, try etc... Well we didn't succeed the first time for L. Fox of Wiltshire, so we're having another go...

Q I noted in your April issue an answer to a Mr. Smith of Forest Oak Birmingham about CB books. I sent off to Knight Communications with a view to purchasing a copy of CB language, CB Bible and Big Dummy's Guide. After a month I received no reply and when I phoned, was told that they only supply wholesale. Please can you inform me where I can obtain these books.

A OK I'm going to stick my neck out again, but if you can't get them at Telecoms of 189 London Road, North End, Portsmouth (Tel: 0705 662145) then I'll eat my rubber duck.

SA

Circuit Breakers

Every so often you hear something which restores your faith in mankind. Vi Hawkins of Aberdeen wrote to me in July asking me if any fellow breakers had a circuit diagram for his rig, which needed fixing. Here's the reply...

Q May I thank all the breakers for their help in sending me a circuit diagram for a Super Star 360. After being off the air for some three months I was able to fix it right away. I've had so many sent, that if anyone is stuck I can help them out. So again all breakers, many, many thanks.

A Does your heart good doesn't it. Thanks Vi, there's a patch on its way to you.

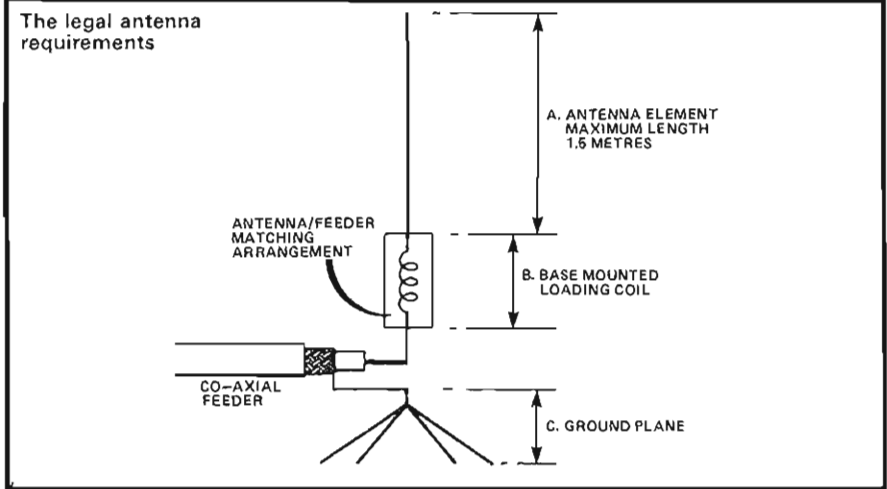
SA

comparitively new, and television has become part of our everyday lives, then CB is regarded as the intruder.

It can be very difficult trying to convince someone that the problem lies with their dear old telly which they've had for years and worked fine until these nasty CB things came out. If they really need convincing then you could invite the experts from Busby round to have a chat to concerned neighbours. This won't solve the problem, but at least it will officially determine who is causing the problem, and maybe common sense and reason will prevail eventually.

SA

Carl Boulton is having problems with TVI, and thinks that his antenna may be at fault...



TV Eyetis

I make no apologies for answering regular queries about TVI. It seems to be one of those perennial problems, with the poor breaker getting the roughest end of someone's tongue. A typical letter comes from Snakeye of Taffs Well in Mid Glamorgan...

Q I've been using a CB now for nearly four years and I've always caused TVI. I've tried dozens of rigs and twigs both legal and naughty, and tons of low and high pass filters and I've never been able to cure it. Just recently I've found that my neighbours who I'm TVIing have a knackered telly and nothing will cure it, but they don't believe it. How do I stand in the eyes of HO and the police. I feel like murdering someone...

A Now that would be illegal. No, but for Snakeye and others, like D F Harsant of Westcliffe-on-Sea, let's put things in perspective. If you've tried filters, and most breakers seem to have, then there's little you can do. As many have discovered. TVI seems to be a problem with old television sets, and even some specific makes i.e. Philips. If you have a CB licence and are operating legal equipment, then you have just as much right to be operating as the neighbours with their telly. Of course because CB is

Q I would like to know if it is illegal to transmit with a home made antenna. My friend says it gives him TVI, but when I have been at his house it doesn't happen. Is it illegal?

A Well I've been through the TVI problems already this month, but the question on a home made antenna is interesting. As long as your construction conforms to Home Office regulations, then you are completely within the law. Just in case you or anyone else is unsure of what these regulations are I'll give you a brief run down.

First off, the antenna element must consist of a single rod or wire with a maximum length of 1.5 metres, including a small adjustment for tuning to minimise SWR. The restriction on length applies only to the element and does not include the coil. In the case of a wire element, the length refers to actual length of wire, not its physical length after bending or coiling. Capacitance 'hats' are not permitted.

As far as the loading coil is concerned, the overall length, according to the Home Office, should not exceed about 15cm.

SA

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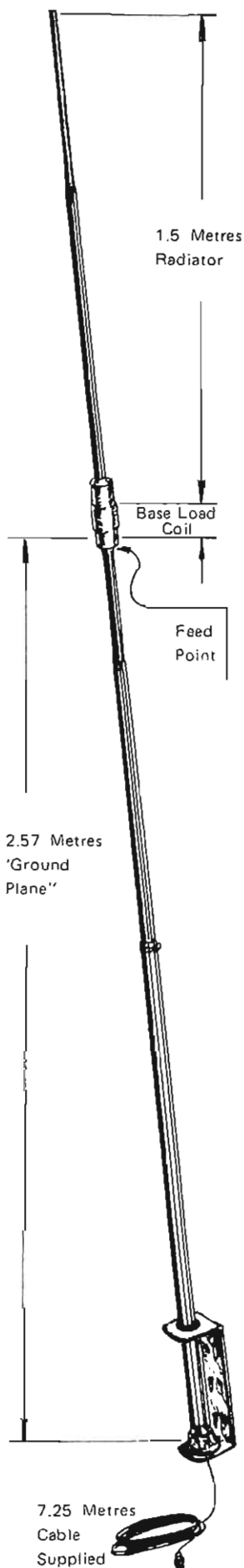
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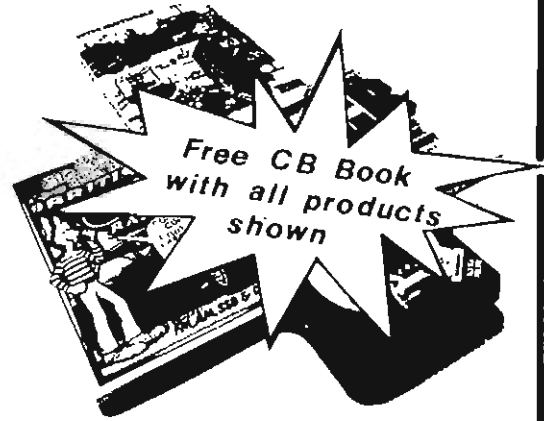
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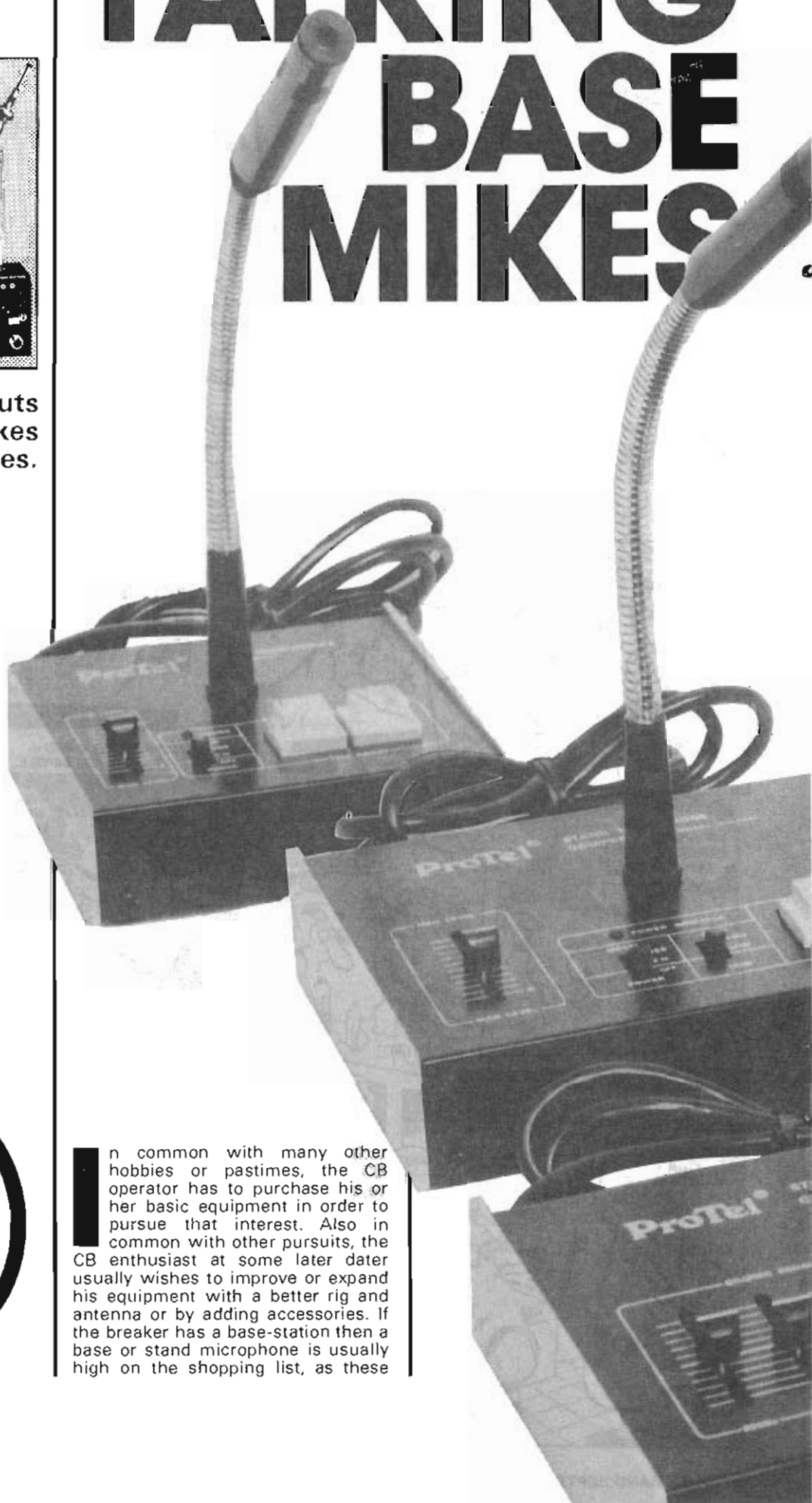
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Equipment Review



Brian W Wright puts three Protel mikes through their paces.

TALKING BASE MIKES



In common with many other hobbies or pastimes, the CB operator has to purchase his or her basic equipment in order to pursue that interest. Also in common with other pursuits, the CB enthusiast at some later date usually wishes to improve or expand his equipment with a better rig and antenna or by adding accessories. If the breaker has a base-station then a base or stand microphone is usually high on the shopping list, as these

mikes give a professional touch to any set up and are much more convenient to use at home than a hand mike. This month we are reviewing a range of three stand microphones by Protel, all of which carry the different facilities. We will start with the simplest or most basic model, the AM-103.

Protel AM-103

The Protel AM-103 is supplied fitted with a four pin locking-ring type plug (as are the other two models) although this may have to be rewired to suit your rig. The base of the mike is constructed with a black painted aluminium wrap over cover and two brushed aluminium side cheeks. No attempts has been made to remove the burrs from these side cheeks leaving extremely sharp edges in places. This is the only point that spoils an otherwise very good construction. The base measures 112mm x 115mm x 34mm. The upstand or stem which holds the mike insert is made from a spirally wound, chromed, flexible metal tube, to enable the user to position the mike conveniently. On the top of this flexible tube is an 85mm long x 15mm diameter black plastic moulding which actually houses the condenser mike insert.

The AM-103 being the simplest in the range is just an amplifying microphone. At the rear is a HAM or CB switch to select the type of switching suitable for the transceiver in use. On the left of the top panel is a calibrated slider volume control. These usually have to be kept extremely low with CB rigs as most base mikes are very sensitive. To the right of the volume control is a

power off/FM/SSB switch above which is a red LED power indicator. To the right of this is a large white push-to-talk switch followed by a push-to-talk lockable switch.

The AM-103 performed well enough, but these amplifying-only mikes don't usually do much to improve FM modulation unless your handmike is really 10-1. The big advantage of course is the ease and comfort in which you can modulate from your armchair, without getting close to the mike, by just reading out and pressing the button. If for example you 'roll your own' and are gasping for a drag of the weed, you can push the lock and roll one while chatting. Two HP7 or similar penlight batteries are required for the AM-103.

Protel AM-601

We now come to the middle of the range — the Protel AM-601. The style of all three of the Protel mikes being the same, it will suffice to say that the general features described on the AM-

103 are the same for all, with additions up the range. The addition on the AM-601 is a compressor amplifier, instead of a non compression amplifier, and a switch for this is included between the power/mode switch and the push-to-talk switch.

The base of the AM-601 is increased to 152mm x 115mm x 34mm to include this feature. The compressor can either be switched off or 35dB or 45dB of compression selected. Again this feature does not have so much effect on FM as on AM but is still a useful feature on FM, especially if some time is spent finding the best settings. The effect of a speech compressor, as many of you will know, is to greatly amplify quiet

syllables in the speech while preventing the loud ones from causing overmodulation, thus making the modulation sound very powerful. The Protel AM-601 certainly sounded very strong and provided clear modulation, providing the person talking had a clear, not too deep voice. Having a fairly deep not too clear voice myself, I prefer a mike with some sort of audio frequency filtering and if you read on you will see that Protel have provided just that in a superb manner. The AM-601 requires two HP7 penlight batteries or similar.

Protel AM-6000

Finally at the top of the range is the Protel AM-6000. This is the only model in the range that includes a large, clear output level meter, which is situated above the two PTT switches. The AM-6000 includes the speech compressor feature of the AM-601 plus a very effective and useful graphic equalizer. This provides up to 12dB cut or up to 12dB boost centred on four frequencies — 250, 600, 1200 and 2400 Hz, by means of four slider controls sited to the left of the volume control. The base size has been increased to 230mm x 115mm x 34mm to allow for this.

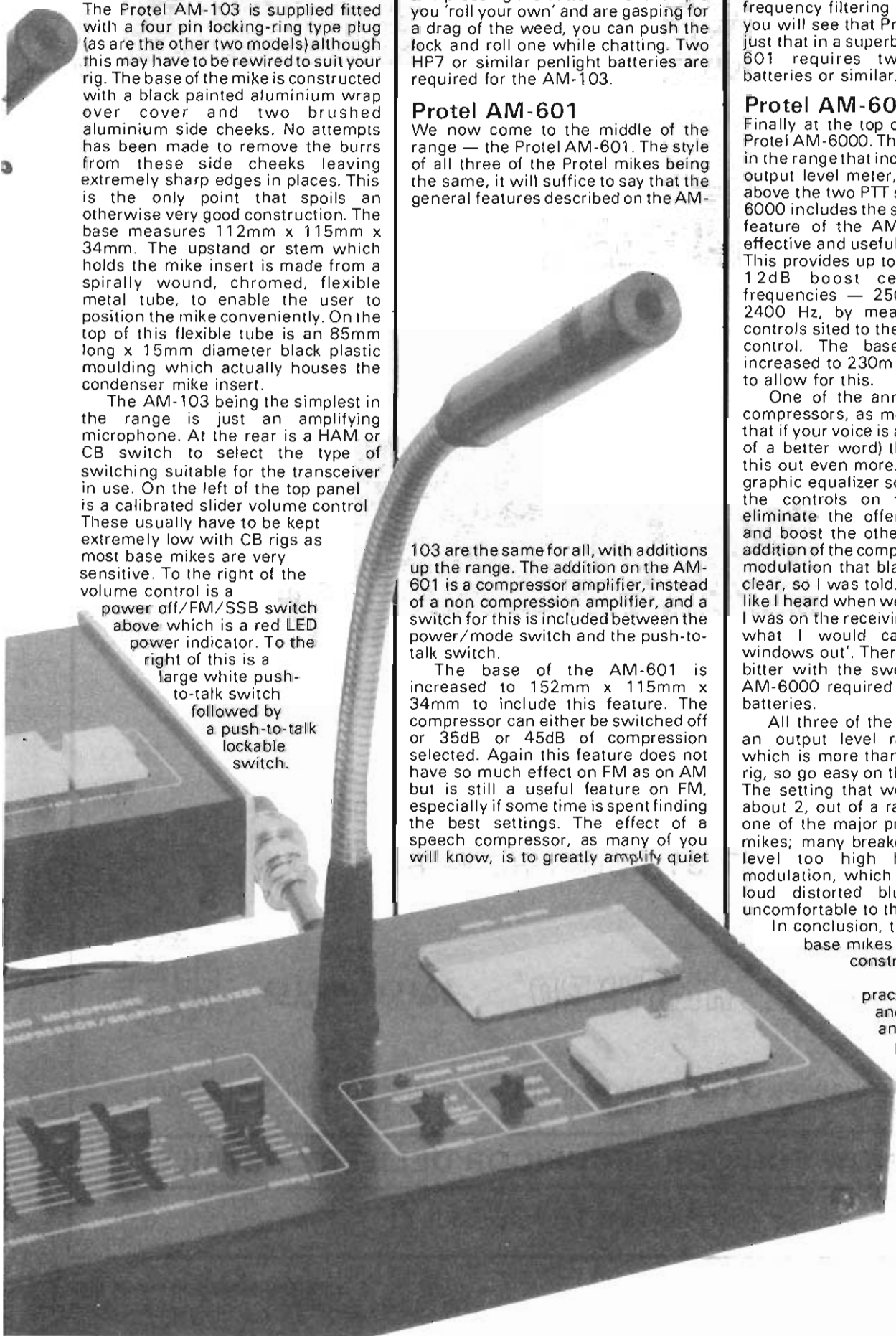
One of the annoying features of compressors, as mentioned above, is that if your voice is a bit fluffy (for want of a better word) they seem to bring this out even more. This is where the graphic equalizer scores, by adjusting the controls on the AM-6000 to eliminate the offending frequencies and boost the others. That, with the addition of the compressor, produced a modulation that blasted out loud and clear, so I was told. If it was anything like I heard when we swapped rigs and I was on the receiving end, then that's what I would call 'blowing your windows out'. There is always a little bitter with the sweet though — the AM-6000 required four HP7 penlight batteries.

All three of the above mikes have an output level range of 0-70mV which is more than adequate for any rig, so go easy on the volume control. The setting that we were using was about 2, out of a range of 10. This is one of the major problems with base mikes; many breakers set the output level too high hoping for loud modulation, which often results in a loud distorted blurr that is very uncomfortable to the listener.

In conclusion, the Protel range of base mikes are generally well constructed and provide a model to suit all practical requirements and pockets. Volume and clarity are good, particularly on the AM-6000 which is a really upmarket mike.

The general styling of all three mikes is smart, clean and modern.

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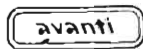
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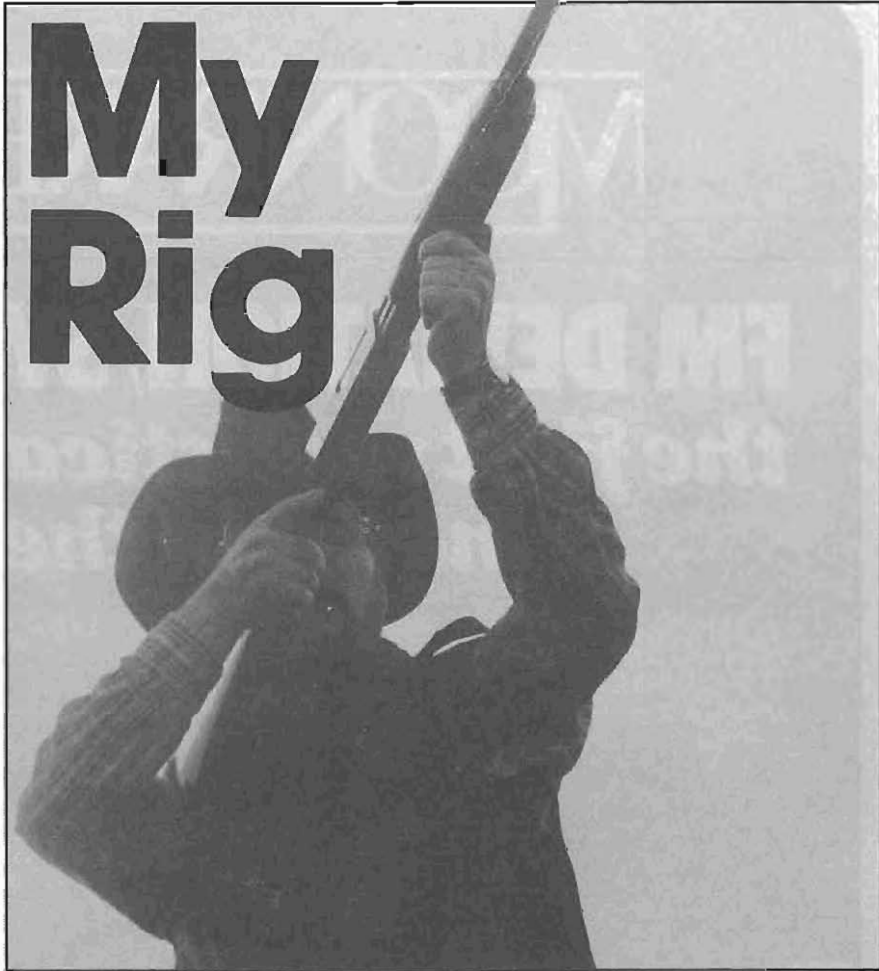
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One of the most frequently asked questions of the staff here at Citizen's Band is 'What rig and antenna do you lot use?' Here is the gen on the choice of Chris Adam-Smith our consultant editor . . .



You know, just off the record, like what rig and twig do you use Chris? This is the straight forward question often asked of me that usually brings forth a complicated answer. For instance, those of us who actually review and test rigs are likely to have any one of a hundred or so available in our homes or mobiles at any one time.

When the test has been completed and the equipment re boxed — my biggest nightmare, usually a Monday morning with a too short length of string and a reel of sticky tape that expires just before the packaging is finished — and the rig returned to the supplier, then is the only time I get on channel with my own particular choice of rig.

I have had many rigs pass through my hands since L day and the one that adhered to my sticky fingers was the RADIO TECHNIC SUPETUNED DNT mobile. I prefer to be a passenger in the car — not for lack of driving skills I might add, it's just that I prefer to ratchet in comfort and look out of the window — and this rig fits very neatly into the passenger's glove compartment.

As we have said many times it is an excellent rig and functions to my satisfaction. Good clean TX — even though it is reported by some to be on the quiet side. RX is a pleasure with good clean copies. It suffers very little from interference from my ancient

motor — with the possible exception of a hum when the wipers are working — and so called bleedover is non existent. It looks good, sounds good and by golly it is good.

Antenna

My mobile antenna is a TAK 10 which, although it lives a little in the shadow of the K40 has one great advantage over it. It is discreet. And extremely easy to remove when not needed. Being small it is not an immediate target for vandals and does not proclaim in a loud voice to the would be thief that there is a CB radio in the car. It compliments the supertuned rig and fair works a treat.

When on the water, fishing, or wandering around the countryside I use a TANDY TRC 1001 forty channel handheld with an extension mike. This is a fine portable and was the first FM rig that I purchased. There, that's my cat out of the bag and I hope it somewhat dispels the belief that Citizen's Band staff all have their rigs given to them by the manufacturers.

For that 'just in case situation' I usually carry a Maxcom Emergency Rig in boot or boat. After all it does have its own batteries and is, at times, easier to carry than the Tandy.

I don't run a base station; 12 hours a day at CB is enough so I keep goldfish.

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LADY BREAKERS



Read about our heroine as she battles with the French for control of the airwaves

I find myself reading about these CBers who have received transmissions from vast distances with increasing gloom. My own personal record, of five and a half miles, pales into insignificance. You can imagine, therefore, how I felt a few days ago when I picked up a voice speaking unmistakable French. A record I thought, about to leap for the record books . . . when I discover that what I was hearing was some French conversational practice between two locals who were due to go to France for their summer holiday. Ah well, put it down to the hills.

Speaking of the French, you may or may not have noticed this summer, large numbers of French kids invading your cities and towns, and even your homes, on various exchange schemes. Take my advice — if you have one actually staying in your home, do not let them anywhere near your rig!

Have you ever tried to explain CB radio to a 12 year old who has not only never come across it before, but speaks English at about the level you speak French? It happened to me, of course. (Everything does.)

In a fit of madness a few weeks ago, I offered to put up one of a party of French kids on a visit from our twin town, in some outlandish part of France. After all, I thought to myself, one must be sociable, and keep up CB's hard-won helpful and charitable image. So one evening, there she was on our doorstep, Gabrielle, small, petite, dark-haired, angelic. She'll be no trouble. I told myself, relieved.

All was well until the fatal day I took her out for a drive in the mini. As we started off, I switched on the rig, more out of habit than anything else. And there was a voice, loud and clear. 'Ten thirty-six, anybody, ten thirty-six', it was saying, plaintively.

'This is Kingfisher. Anybody there?' Gabrielle was looking round in astonishment. 'It's on the radio', I said helpfully, pointing to the rig. She stared at it. '*Sur le radio? Mais non*', she said. 'That *homme*, he demands a question!' God help me, I thought she didn't know about CB. 'Look at those interesting — er — cows. *Regardez les vaches*,' I said in a cunning attempt to divert her. It didn't work.

'That man, ee said ten sirty-six. What is that?' she asked, still staring at the rig. I began to foresee difficulties; how was I to explain the ten code? She'd think I was a lunatic. 'It's a — a kind of — it's not used much', I said weakly, switching off the rig. She promptly switched it on again. 'But that man, ee said ee was King-fisheur. *Qu'est-ce que c'est, ca?*'

'That's his name', I said, crossing

my fingers. What would she make of handles, for heavens sake? There was something in that bright shrewd gaze of hers that made me feel not so much a responsible adult indulging in a rational hobby as a simple-minded four year old with a new toy.

'Do you speak on *le radio*, too?' she asked, catching sight of the mike. I removed it from her reach, hurriedly. 'Sometimes', I said, and was promptly subjected to the most harrowing grilling I'd ever undergone on the whys and wherefores of citizens band radio. If France was not already given over to CB, it obviously soon would be, I thought, sweating, as I tried to explain in my best schoolgirl French what 'that long bendy thing' was on the bonnet (well, do you know the French for aerial?).

I have to admit, she caught on extremely quickly, though I was adamant about hanging onto the mike. I'm often amazed, not to mention put out, by the capacity of kids to learn things that I'm still not absolutely certain I understand. (Not that I would ever dare tell them so.) We probably all know of at least one nasty little whizz-kid who can take a rig apart and rebuild it with one hand behind his back and standing on his head for good measure.

I survived that particular ordeal, but there was a sequel which still gives me nasty moments, although I could swear Gabrielle never went near the mini again. . . . The day after she left for France, the airwaves were alive with speculation. It seemed that the men, repellent creatures, had heard about an exciting new lady breaker in the district. A lady breaker with a husky French accent and an alluring lisp. Calling herself (ye gods!) Emmanuelle. Who was never heard of again after my visitor's departure.

But no. I am just being over-imaginative. It couldn't have been . . . could it?

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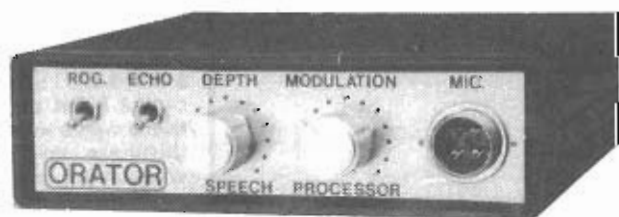
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COMMUNICATION THE

QSL

WAY

News from all over the world, plus a way to help you identify some of the continental QSL cards by means of their postcodes

By the time you read this it will be common knowledge that CITIZEN'S BAND MAGAZINE is now the sole survivor of the original CB magazines which abounded over the past two years, and as I write this article I hear the only other publication on the newstand — On the Side, which was a successor of 'Breaker On The Side' has also folded.

Getting back to the disappearance of CB RADIO Magazine, most of you probably know that my QSL counterpart, the famous CHARLIE HOTEL — Chris Hodgson who used to write for that magazine dropped me a line recently with some remarks that he has asked me to pass on to all those of you who used to read both our magazines. Chris relates that he had no prior knowledge about the CB RADIO mystery. He says he has tried phoning them umpteen times with no response whatsoever. The phone is just not being answered, and they do not even reply to mail. Chris, like myself, worked as 'freelance' and used to write his screeds just for the love of QSLing. A sort of very friendly rivalry developed between us, but we were personal friends long before we both started writing for CB magazines. Anyway Chris asks me to let you all know he is alive and kicking, and sorry that he had to 'drop out' without saying goodbye — but circumstances were against him. If you want to reach him, a letter to 3 West Street, New Silkworth, Sunderland, Tyne & Wear SR3 1EU., will find him. Incidentally Chris's daughter Rachel aged seven has just had a beautiful SUNDOWN QSL card printed — she's the youngest member of Tom Sowdens 'Keep In Touch' (KIT) International DX-QSL Club in New York, and Rachel's Card reflects this:

Had a visit from Knut Mittelstadt the other day, and for those of you who have not been QSLing for any length of time you will know that Knut is the very enthusiastic President of the BRAVO BRAVO AM/FM DX-GROUP

OSL-DX BERLINER BEAR and we spent a pleasant few hours swapping CB yarns, before he was off to Portsmouth to see some more friends in his two week visit to Britain. Knut left lots of information on the BERLINER BEAR, and I can assure you of an excellent membership package for £8 which includes a superb membership certificate, rubber stamp, ID Card, embroidered club patch, membership roster, DX Logbook, club decals, pens and heaven knows what — at least a 17 item package, and really excellent value.

For those of you whose finances are greatly limited, Knut has put together what he calls his mini-parcel — which includes a club rubber stamp for just £3, great value, especially when you realise it costs over a pound to post it! If you are sending sterling notes wrap them in paper, preferably carbon paper, and make sure you REGISTER the letter. The address of the club is:— BERLINER BEAR, Postbox 2923, D-6750 Kaiserslautern, West Germany. Hope to see lots of BERLINER BEAR rubber stamps around in the future!



A letter from the British Representative of the BALL-LIGHTNING QSL CLUB — Dave Sheppard of 6, Terrell Gardens, Redfield, Bristol BS5 9NY reminds me that I have not yet included details of his club in our column. Dave, I respectfully point out that this article is written so well in advance of actual publication, it sometimes takes as much as eight to ten weeks between this leaving my typewriter and it getting into print, so all of you who write, especially with news of special events, please allow lots of time, so that we can include your requests. Dave, as I said is making quite an impression on the QSL scene, and he would be very pleased to hear from you, and will send you details of the BALL-LIGHTNING QSL Club upon a receipt of an SAE.

Now for some good news from our old friend Des of D Currie Printers, purveyors of some excellent QSL cards and associated items. Des is about to run a competition for QSLers. Currently there are over 1000 different cards produced by D Currie Printers, and for the first two persons to collect 100 different cards from their range a super Jumbo 100 page DX Logbook will be presented, and for the first two people to collect 200 different cards not only will they receive a Jumbo Logbook, but there will also be a prize of 1000 free personalised Rainbow full-colour QSL cards each. The competition starts now, so ferret out those Currie cards. If you want details of how you can become a Currie QSL cardholder, a SAE to Des at 89, Derwent Street, Blackhill, Consett, Co. Durham DH8 8LT will bring full details — get collecting!

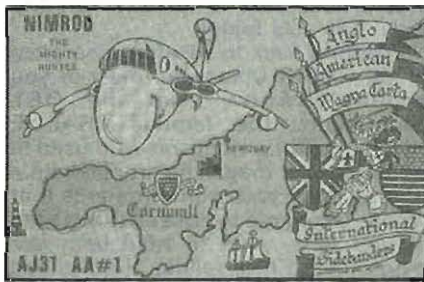
No month would be complete without a communication from Mick Marks our boss-man extraordinaire of the ANGLO AMERICAN MAGNA CARTA INTERNATIONAL SIDEBANDERS at P.O. Box 13, Newquay, Cornwall, TR7 2PA. I have lost count of the number of different QSLs that come forth from his Cornish abode, suffice it to say the latest two are more highly-collectable cards, a full colour personalised card for Mick's handle 'Nimrod' from the MUSHY PEA Series, and a super dual-club featuring the ANGLO AMERICAN and COBRA OPERATORS CLUB. Incidentally Mick also runs a rubber stamp business, dedicated to QSLing, and in conjunction with REACT UK has just produced a very smart 'Support REACT' rubber stamp which is available to all CBers at £3.25. Not only is it a good way to get the 'Emergencies on Channel 9 only' message across on all your mail, but a donation for each rubber stamp ordered, goes direct to REACT to promote the Monitoring service to us CBers in this country, an idea worthy of our support. If you would like details of the Club, QSL Rubber Stamps, or both, then a 9 x 4 SAE will bring full details.

Lots of you complain about not being able to identify some of the continental QSL cards that come into

your possession, so I have listed some of the postcodes in use overseas:-
GERMANY: Prefix D plus 4 digits plus Town Name
FRANCE: 5 Digits (No letter) plus Town Name
AUSTRIA: Prefix A plus 4 digits plus Town Name
NETHERLANDS: 4 Digits plus Town Name
SWITZERLAND: Prefix CH plus 4 digits plus Town Name
NORWAY: Prefix N plus 4 digits plus Town Name
USA: State Abbreviation plus 5 digits (eg: CA 95437)

CANADA: Postcode (eg. R3M 3S3)
 And if all else fails — don't forget the obvious — look at the postage stamp!

While on the subject of requests, in answer to a QSLer who forgot to put his name in the letter. He had been having trouble locating small stick-on 'Union Jacks' — you can order these from most branches of WH Smiths, or any good stationer, ask for IVY SERIES Label 16 x 22mm 'Union Jack' cost is about £9 per thousand, and they really brighten up a QSL card. Last month we gave a mention to a new club, the Red Chief QSL Club. Another letter this month brings samples of their new club pens, and a promise of a return 1-4-1 QSL to everyone who writes. The club address is P.O. Box 602, Preston, PR3 3HX.



I always like to see unusual clubs that members have joined, two such contacts came from a QSLer in the Shetland Islands, FRIAR TUC alias Jim Bruce of P.O. Box 31, Lerwick, Shetland Islands, who QSLed with some very attractive personalised QSL cards. Jim sent details of the YELL RADIO CLUB from P.O. Box 1, Yell, Shetlands, and the other is VIKING RADIO DX QSL CLUB, same address as Jim, no doubt a SAE will bring full details of these unusual clubs. The next one out of the bag must be one of the most unusual QSLs I have ever received, believe it or not a QSLer, Mike Hildrew of 90 Sycamore Road, Strood, Kent ME2 2NZ whose handle is BEERMAT has produced some QSL — guess what? — BEERMATS, and very attractive and novel they are too — a real must for all collectors — great idea Mike, well done.

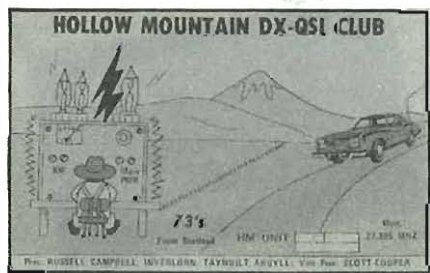
Had a nice surprise with the next one. From BLUE ANGEL, Diane Spencer of P.O. Box 10, Dingwall, Scotland comes a nice tourist pack issued jointly by the Ross & Cromarty Tourist Organisation and the Rocky Mountain Breakers. Diana tells me she doesn't get too many QSL cards. Come on now lads, let's not leave a

lady in distress! Diane sent a nice photo of herself, and I think it is a very refreshing idea to open a pack and see who has written to you. If you have a decent black and white photograph (not polaroid please) send it too me and we will try and start a 'nice to meet you' section of all your ugly mugs!

Had a very interesting letter from COCKNEY JOE, handle of Roger F Hobbs, a member of the TANGO DELTA DX Group. Let me relate his writings — 'We, (the club) have written to CB Mags several times but never a mention. I am one of 32 members of the TRIPLE DIAMOND DX50 GROUP, being a club whose basic claim to fame is DXing on legal FM, for copies of 50 miles or more from our QTH's. Our members cover an area on London, Surrey, Kent and Sussex, and we all QSL 100% on a QSO, and would like to hear from any station UK or abroad, if they have heard us on channel. We go under the call-signs of Tango Delta — followed by our club number. We look forward to hearing from anyone interested, the club address is P.O. Box 56, Sevenoaks, Kent'.

Heard again from an old QSL friend in South Africa, we last swapped QSLs over four years ago, and now my friend over there would be very pleased to swap with all Citizens Band readers, especially spoon collectors — Errol and Margaret Smith of P.O. Box 14, Lansdowne 7780, Capetown, South Africa. Due to the cost of postage they only QSL surface mail, but a return is well worth waiting for. We seem to keep on this month about the lack of CB magazines on the market, but just opened a letter from Ron, the New President of FLOWER OF SCOTLAND INTERNATIONAL CARD SWAPPERS CLUB, and they are currently producing a 16 page newsheet which is available to all, price 40 pence, and well worth it too — nicely put together with lots of interesting items. Had a nice letter from the Pope (No not the Pope, silly) this one is Paul who writes to let us know of the existence of the WARLEY AND BEARWOOD DX GROUP whose postal address is P.O. Box 15, Warley, West Midlands B66 4EA. They meet every other Monday in the Smoke Room, The Two Brewers Public Hostelry, Queens Road, Warley, where all are welcome. A postal section relating to QSLing is just about to be launched so a SAE will bring full details.

Now listen all of those of you out there with their pens poised for the next one — I have just been severely reprimanded by SOLDIER BLUE — Steve Carpenter who tells me he has



written in three times without a mention — come on help me out of this one, Steve sends an excellent QSL return, and a QSL to 40, Oakfield Road, Thurston, Bury St Edmunds will find him, and get me off the hook — sure I HAVE mentioned Steve before haven't I? A really striking QSL in from Tony Rodway of 57, Meare Road, Foxhill, Bath, Avon BA2 5PX. He has some home-produced QSLs illustrating his handle 'NAVAHO', really professional result Tony, well worth a swap.

A quick 'Hello' in from Russell Campbell, President of the HOLLOW MOUNTAIN DX-QSL Club, of Inverlorn, Taynilt, Argyll, Scotland, the club is still doing well, and Russell promises a 100% return to all QSLers — as they have some colourful new club cards, this one is a must for Club Theme collectors.

Quite an amount of QSLs in from Ireland this month, so we will have to grab a few and get going — first out from Paul Bridgeman, 8, Kilmore Heights, Hollyhill, Cork, Ireland, lots of different cards, and piles of club membership forms, quite a pack — next one was from Leo RASPUTIN Kidney of 18, Richmond Court, Bandon, Cork, Ireland, who has sent some of his new D CURRIE cards (remember the competition this month — here is your first card towards the magic 100), and a pile of assorted view cards and floaters from his contacts across the world — a super QSL pack. Incidentally, from his last mention in the June issue of CITIZENS BAND Leo has received 165 QSLs, can't be bad can it? They cannot get any CB Mags (not even ours) over there, so if you can spare a copy Leo is PRO for the South

West Cork CB Club and a lot of anxious readers are waiting for your old copies. Last one from the Emerald Isle is another from Cork — Karl of 98, Killmore Road, Lower Knocknaheeney, Cork City, Eire — again lots of swaps (including some of Leo's incidentally) and some nice picture postcards.

Thought our Welsh friends had forsaken us this month, but a deeper delve into the postbag reveals a great new card from SLEEPY JOE — Les Rogers of 6, Netley Road, Rhyl, Clwyd LL18 2AN, nice one Les, and from THUNDERBIRD ONE — Martin (obviously an International Rescue freak) from P.O. Box 94, Wrexham, Clwyd LL11 1EU comes some nice homebrews of the Thunderbird fleet — great stuff! Again from Clwyd a nice selection from Chris and Dawn Rogers of P.O. Box 32, Rhyl, Clwyd, North Wales whose QSL illustrates the crest of their Channel 9 Monitoring



Organisation the Radio Emergency Service Citizens United Efforts, doing a great job over there you two — hope you do not have the idiots on channel 9 that we suffer in the London area. Talking about London, from Ian (EG9X) of 2, Elizabeth Ride, Hertford Road, Edmonton, London, N9 9PB comes a great selection of QSLs, and some pretty enthusiastic recommendations for the SIERRA VICTOR INTERNATIONAL DX-QSL CLUB and the SANDCASTLE QSL CLUB run by Ian Schrader in the USA. For those of you who want details, SIERRA VICTOR is run by Peter Breed from 43, Greedon Rise, Sibley, Leicester LE12 7TE, and the Sandcastle from P.O. Box 167, Pacific Beach, Washington, Wa 98571, USA.

Well, that's all we have space for this month, keep those cards coming, and very best of luck with the competition. If you would like a mention, your QSL direct to THE MEDICMAN, 124, Hillcross Avenue, Morden, Surrey SM4 4EG will stand a good chance. Until next month. Take care — We care.

CB



Citizens' Band List of Good QSLers

- | | | | |
|--|---|---|---|
| DONAL & LILLIAN SKELLY
<i>Sunshine State 612</i> | 172, Ard Foyle,
Moville, Donegal,
Ireland. | STEVE LOCKEY <i>The Saint</i> | 4, South View Road,
Milbourne Port,
Nr Sherborne,
Dorset DT9 5BS |
| ALEX <i>Budgie</i> | 10, Meadow Close,
Totnes,
Devon TQ9 5YF | MARIA <i>Queen of Clubs</i> | P.O. Box 110,
Dundee, Scotland. |
| CAROL & GORDON
THOMAS <i>Ginger Min
& Big G</i> | 8, Walton Gardens,
Waltham Abbey,
Essex. | BRIAN <i>Hotel Sierra 27</i> | P.O. Box 8 (HS27),
Petersfield, Hants. |
| MALCOLM M HALL
<i>Sputnik</i> | 75, Borrowfield Road,
Spondon, Derby DE2 7HF | B SOMERVILLE, <i>Sparrow
Hawk; R SOMERVILLE,
Cavalier; J SOMERVILLE,
Snowdrop</i> | 11, Douglas Terrace,
Highstables, Dipton,
Stanley, Co. Durham,
DH9 9EP |
| ANDREW JENKINS
<i>Market Man</i> | 10, Mount View Terrace,
Aberafon, South Wales | RON BROOKER <i>Top Dog</i> | 31, Lyppincourt Road,
Bristol BS10 7FJ |
| LEN TOWNSEND <i>Sapper</i> | 3, Ripley Way,
Hemel Hempstead,
Herts HP1 2ND | SIMON <i>Road Racer</i> | 92, Minors, Darlington,
Co Durham DL3 0DS |
| CHRISTINE <i>Rubber Ball</i> | P.O. Box 6, Caidicot,
Gwent, Wales. | FRANZ <i>Orion 01</i> | P.O. Box 2,
A 3442 Langenrohr, Austria. |
| FRANK O'CONNOR
<i>Strider</i> | 42, Ashworthy Close,
Bransholme, Hull HU7 4EX. | ROY <i>Bald Eagle</i> | 34, Pear Tree Avenue,
Kingsbury, Tamworth,
Staffs B78 2LG |
| | | LES BBD010 <i>Tractor Boy</i> | P.O. Box 1, Compton,
Newbury, Berks RG16 0QB |

Rig Review



Chris Peterson reviews a very professional rig from Cybernet. But is it all it's cracked up to be? Read on.

Better by Beta?



have to admit right from the start that I am a Cybernet fan. And if the comments heard over the airwaves are anything to judge by, so are a great many other breakers, though they may not realise it! Cybernet are one of the biggest (if not THE biggest!) manufacturers of CBs in the world. Through the magic of badge engineering, they are responsible for some of the best known and respected rigs around. The list includes Yorks, Harriers, Rotels, Binatone 5 Stars, some Harvards and a great many others.

The Cybernet Beta range is a rare instance of a major Japanese manufacturer selling under the name of the parent company. As one might expect, with an extremely high reputation to maintain, the Cybernet rigs are built and perform to a very high standard. For a long time we reckoned these rigs to be the best around. It is only recently with the advent of the 'super' rigs like the Magpies and Mercuries that it has been knocked off the Number One pedestal.

The Professional version of the Cybernet 3000 retains the features of the standard rig, but in addition is now able to offer scanning and SelCall functions. We've covered the Cybernet 134 chassis in detail on numerous previous occasions, so rather than our usual 'blow by blow' account of the workings of the rig, we'll concentrate on the features that make this rig that little bit special.

The styling of the Beta range of rigs is rather unconventional and highly attractive. It is remarkably compact compared to its 'badge engineered' cousins. The 3000 will fit into the standard car radio slot, like the console of an SD1 Rover, for example, a feature that endeared it to us from the start! The mike connector, a standard four pin locking ring device, is on the front and next to it a square group of knobs for Volume/Off, Squelch, RF gain and Tone. To the right of these is a rectangular darkened window containing a green LED bar graph display and some warning LEDs.

The bar graph display operates in one of three modes. In receive it indicates relative signal strength, in the 4 watt TX mode, it indicates power output, and when the 10db attenuator is applied it measures modulation. Beneath the bar graph display is a row of four warning LEDs. From left to right these are TX (red), RX (green), PA (yellow) and Ch9 (yellow). Further to the right again is the channel indicator, a green LED display. Beneath the indicator window is a row of four push buttons. From left to right these are Clear, CB/PA, SelCall (SC), and Ch9. On the extreme right is the channel selector knob.

Moving to the rear, there is a standard SO-259 antenna connector, two 3.5mm jacks for external and PA speakers and a two pin polarised power connector. Also at the extreme edge is a small slide switch for the 10db attenuator. Why of why do manufacturers insist on putting this

switch at the rear? If it is going to be fitted at all it ought to be at the front. Black mark, Cybernet!

The microphone looks like the standard Cybernet unit except that it has two extra buttons on the top for remote channel selection and other functions! The rig came with two instruction booklets, one for the standard rig, and one for the special features. The usual mounting hardware and power cables were supplied, and the rig was supplied in a neat and substantial box.

The Beta 3000 uses an isolated chassis, and can thus be used in cars with positive earth chassis. Internal construction follows the usual Japanese methods involving sprinkling components all over the board and pouring in candle wax! Not the neatest way to build a rig, but the soldering is all to a very high standard. The rather untidy internal construction is not helped by the addition of an extra board carrying the scanning and SelCall circuits. To be fair there is no way all those functions can be added tidily unless designed in from the start, but I for one would not like to have to repair one of these rigs!

Special Functions

The new functions that have been added to the rig are quite comprehensive. They are:—

1. Selective Calling facilities (SelCall).
2. Up and down channel change keys on the mike.
3. Ch 14 available immediately from the mike.
4. Ch 9 available immediately from the mike.
5. Automatic scanning for a busy channel.
6. Automatic scanning for a free channel.
7. Skip and lockout facilities for scan busy.
8. Ch 9 monitoring WHILST USING ANOTHER CHANNEL!
9. Roger Bleep.

That's quite an impressive list. Bear in mind that all these functions have been provided with the addition of only two extra push-buttons. As you might have guessed this makes operation quite tricky. Although the operation of each individual function is relatively simple, I suspect that very few people will be able to remember the correct combinations for all the functions!

Starting with the simple ones first, we'll now describe the operation of these functions. The mike has a standard push-to-talk (PTT) switch on the side, but in addition there are two small push buttons on the top. In the simplest mode, pushing the 'up' key (on the left) and immediately releasing it will step the rig up one channel. That is unless you are already on channel 40 in which case it will 'wrap around' to channel 1. Similarly the 'down' key will increment the channels down until channel 1 is reached when it will 'wrap around' to channel 40. Holding either button down will make the rig step continuously in the desired direc-

tion at 4 channels a second until the button is released. At any time the rotary switch on the front of the rig may be turned and the rig will go to the switched channel. (There is an inhibit to prevent the rig changing channel whilst the PTT switch is pressed.)

It is also possible to go directly to channel 14 by pressing the 'up' key, and whilst holding it, pressing either the 'down' key or the PTT switch and then releasing both. Similarly, if the 'down' key is pressed followed by either the up or PTT switches, then channel 9 is immediately selected.

All very ingenious and quite useful. Mobile users might query the choice of channel 14 as a 'standard' channel. It's a pity that the channel 14 combination doesn't force the rig to the channel selected on the rotary switch. This would allow a choice of 14, 19 or any other locally used calling channel, and make use more convenient for the small business users at whom the rig is obviously aimed.

Scanning

This operates in two modes, scan for a busy channel and scan for a free channel. Taking 'scan for free' first, this mode is activated by pressing the 'SC' switch on the front of the rig. The channel display will now read SF (scan-free). When the 'SC' button is released the rig will scan from the current channel until a free one is found.

A free channel is defined as one which fails to open the squelch, so the setting of the squelch control is obviously crucial for correct operation. If the rig is left in the SF mode, scanning will recommence if the channel becomes busy. Pressing the PTT switch will stop the scan once a free channel has been found. Scanning occurs at 10 channels per second!

Channels 9, 14 and 19 are automatically ignored in this mode. A very nice feature of this scanner is that it remembers both the free channel it has just found, and the one from which the search commenced. To go to the starting channel, use the channel 14 combination previously described. To go to the free channel you have just found, use the channel 9 combination previously described.

This gets neatly round the usual problem with scanners, namely getting back to your would-be partner to inform him/her of the vacant channel. Nice one Cybernet, award yourself one bonus mark! The rig will remember these channels, allowing you to flip between them until a single up or down command is given. Then the rig reverts to normal channel 14/9 operation.

Turning next to the 'scan for busy' function, this is a little more complex. First press the SC button, as previously, and the display will read SF. Next press the down key on the mike — the display will now read Sb (scan busy). Releasing the SC button will now cause the rig to search for a busy channel as defined by the squelch setting.

On reaching a busy channel, the scan will stop and the display will flash the channel number and S_b alternatively. If the channel becomes free for more than five seconds the scan will continue. Whilst in this mode, the up and down buttons take on yet more special functions. The up button becomes a skip button, and the down button a lockout button. The skip button causes the rig to scan on until it finds another busy channel. If you decide to stay on a busy channel, you have three options:—

1. Turn the squelch down so that the receiver thinks the channel is permanently busy.
2. Press the PTT switch. Transmitting automatically exits the scan mode.
3. Press either the 14 or 9 combinations as described earlier. This exits the scan mode without transmitting.

The lockout button also causes the rig to continue scanning for a busy channel, but tells the rig to ignore the 'locked-out' channel next time round, even if it is busy. There is no limit to the number of channels you can lockout, so it is possible to program the rig to scan around just two or three channels. This might be a bit tedious to set up, but is nonetheless a useful feature. It is especially useful when used in conjunction with the SelCall function.

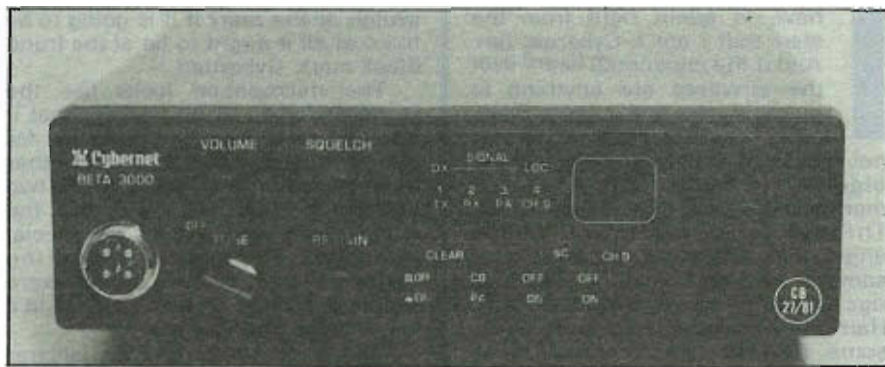
All locked out channels will be remembered until either the rig is switched off or the PA button is depressed. Unlike the SF mode, channels 9, 14 and 19 are not automatically locked out in this mode. If you wish to ignore them you must lock them out manually as described above.

Channel 9 Monitoring

This is quite unlike a normal channel 9 switch which merely forces the rig to 9 regardless of the position of the channel switch. When the channel 9 switch is operated, the rig will automatically flip between 9 and the selected channel. The only evidence that this is occurring is a slight twinkling of the signal strength LEDs. On detecting a transmission on channel 9, the rig beeps briefly and the channel display reads 9. Although the rig will now lock onto channel 9, the transmitter is inhibited until 9 is selected by one of the methods previously outlined. This is done to prevent accidental transmission on channel 9.

This channel 9 monitoring will operate in all modes including scanning and SelCall. When in the SelCall standby mode, the internal speaker is usually muted. The channel 9 monitor automatically overrides this and allows the emergency message to be heard. When in SelCall mode, the channel 9 monitor is disabled when the send mode is entered.

The channel 9 monitoring facility is extremely well thought-out, and should help to relieve the boredom for the monitoring services. They will now be able to have a chat on other



channels without neglecting their monitoring duties!

SelCall

SelCall is a feature that allows the rig to be called without the necessity of constant monitoring. Each Cybernet Professional rig is equipped with a system that allows over 4000 different code numbers per channel. The 4000 different combinations are arranged in groups of 256. The code for each rig is preset at the factory, though instructions are given on how to change the code if you wish. This enables you to select the same or a different code from other operators in your area should you wish.

First of all, if you are going to operate a SelCall service, you have to decide what your calling channel is going to be. Around most urban areas 14 and 19 are pretty busy and you are unlikely to get through on these channels. The instructions mention that channel 3 has been adopted in some areas as a SelCall channel, but we don't know on what evidence this is based. (Any comments from out there?)

Having chosen your channel you can now enter the standby mode by pressing the SC switch and momentarily pushing the PTT switch. The channel display will now alternate between the channel number and SC, and the speaker should be muted.

On receipt of the correct code several things happen.

1. The speaker is reconnected.
2. The speaker will beep at you to attract your attention.
3. The rig will automatically transmit an acknowledging beep to let the caller know the signal has been received.
4. The display will flash between the channel number and CA. This is in case you are away from the rig when a call comes in.

To answer a call, simply press the PTT switch as usual, and this will

automatically exit the SelCall mode. To re-enter the SelCall mode it is necessary to release and re-press the SC switch. To make a call on the SelCall is a bit more complicated. First enter the standby mode by pressing the SC switch and dabbing the PTT button. Next select the number you wish to call by using the up and down keys on the mike. These numbers are in Hexadecimal (ask your neighbourhood computer buff!). Briefly this means that in addition to the digits 0 to 9 you have A to F as well. For example 24, 3F, D5 and EE are all valid numbers in Hex. This allows 256 combinations to be selected with only a two digit display.

Having selected the appropriate code, press the PTT switch. The display will now show SE (for send), and the speaker will be reconnected. This allows you to make sure the channel is clear before transmitting. Pressing the UP button will now send the call.

If all is well you should get a responding beep from the receiving rig. If so, simply pressing the PTT switch enables you to transmit normally, disabling the SelCall mode. If no response is heard, the standby mode can be re-entered by pressing the DOWN button. Unlike many SelCall units, the Cybernet one is independent of the volume and squelch settings. It will also respond to a correct code even if you are not in the SelCall mode.

A large number of SelCall units are now available, and most are incompatible with each other. The Cybernet instructions indicate that this unit is compatible with some others, but neglects to identify them. Certainly the length of the call and its sound were not unlike those of some Datong units we looked at a while ago. We would not be surprised if this system were compatible with them.

Having said that, we ought to point out that a single SelCall unit is not much use on its own. Unless Cybernet



are intending to market a compatible unit to fit to existing rigs, they may find themselves out on a limb. They only supplied us with the one rig which made it rather difficult to test the SelCall unit! Ingenuity prevailed however. We set the rig to transmit its own code and recorded the signal on a cassette recorder off another rig. By replaying the cassette into the other rig we were able to trigger the Cybernet's SelCall unit. Not very practical, but if nothing else it demonstrated the good noise immunity of the system!

Facts and Figures

We ran the rig through our standard set of lab tests to check compliance with the Home Office Specifications. The rig was well within the specified limits and the following results were obtained:— Supply volts: 13.2 volts. Power out: 4 watts. 10 dB att: 13dB.

These results are good. With all that digital microprocessor circuitry added we had expected the overall sensitivity to be reduced, digital circuits being notorious generators of RF noise! However this rig was even more sensitive than previous samples we've tested, possibly excessively so. Had it not been for the presence of an RF gain control we would have been worried by this extreme sensitivity.

The 10dB attenuator was twice as effective as required by the regulations. They are simple enough to adjust, and I simply cannot understand why so many manufacturers end up with only 0.2 watts output instead of 0.4 in the low power position!

On the Air

The Beta 3000 Professional was used for a few weeks around the West London area and performed to Cybernet's usual high standards. The one feature of these rigs that really shines is the audio quality. The transmitted audio is crystal clear and the received audio lacks that harshness that can be so hard on the ears with FM rigs.

However the Cybernet's weaknesses are there too. The squelch really ought to be better than it is. It certainly has adequate squelch range, but being level operated it is a complete throw-back to AM days. An FM rig ought to have a noise operated squelch. They are simple enough to build and will often prevent the rig opening up on 5 pounds of garbage! The Cybernet squelch has two other shortcomings. It has no hysteresis built in, so that signals around the squelch threshold will cause it to tremble on the brink. This comes over as a noticeable rumbling under certain conditions. Secondly, the squelch is applied after the volume control. Although the 'plop' of the squelch opening is not loud in absolute terms. It can seem very loud when listening at low volume settings in a quiet environment!

Many of the more sophisticated features of the rig rely on the squelch for their correct operation, and this

exaggerates the shortcomings of the squelch.

The receiver performance of Cybernet rigs has always been good. Indeed for a long time it was reckoned to be one of the most immune rigs to 'bleed-over' around. However times change, and there are now at least three rigs available offering considerably better immunity in this respect. For the addition of £5 worth of components (a crystal filter for the 10.7 IF stage) the Beta 3000 can be made into one of the best rigs around. It is a pity that Cybernet have not taken the opportunity to fit this sample mod themselves.

Some people may regard this as harsh criticism of a generally fine rig. Indeed the basic Cybernets at around £50 offer very good performance for the money. However the Beta 3000 Professional is advertised at £174.90, and at that price it must be judged by a different set of standards.

My own personal rig is a standard Beta 3000, but fitted with a 10.695 MHz crystal filter and a noise squelch kit (both from Ambit International). The improvement these mods make is staggering, and all for a total outlay of under £10 in one-off quantities. A major manufacturer ought to be able to fit these mods at the factory for less than that. Why haven't they?

Having mentioned the price we are forced to ask "Who is the rig aimed at?". Obviously it is not aimed at the average domestic user. The price seems a lot more reasonable when compared to the cost of PMR (Private Mobile Radio) equipment for the small business user. Also the waiting list for PMR licenses is staggering! I seem to remember hearing the figure of two years quoted not so long ago! So for a small business the Beta 3000 could be a very attractive proposition. The SelCall would make 27 MHz a practical proposition in many areas for this purpose.

Similarly REACT or THAMES monitors may find the facility to monitor channel 9 whilst conversing on other channels a useful facility. It would certainly help relieve the boredom! The basic question remains "is 27 MHz really suitable for such a purpose?". Around our major cities, I suspect the answer must be NO! The "wally factor" virtually ensures that all the present calling channels are virtually unuseable for many hours of the day. As soon as these idiots discovered the channel being used for SelCall, no doubt they would start playing the Top Twenty all over that as well! A rig with an excellent RF performance might be able to cope with some of this, but while the Cybernet is good, it can no longer be rated excellent!

There is no rig on the market that can be directly compared to the Cybernet i.e. that has both Selcall and scanner. The Magpie 5000 has the scanning facility but no Selcall, and the Mercury 1040 the Selcall but not the scanner. So while both may be better performers as basic rigs, neither can boast these two features. **CB**

RIG REVIEW DATA PANEL

Model Cybernet BETA 3000
Distributor Goodmans
Typical Price £174.90

Features	Yes	No
PA Facility	●	
External Speaker Jack	●	
TX Indicator Light	●	
RX Indicator Light	●	
PA Indicator Light	●	
S/RF Meter LEDs	●	
Hi/Lo Power Switch	●	
ANL/NB Switch		●
CH9 Switch	●	
Variable RF Gain	●	
Mike Gain		●
Delta Tune		●
Tone Control	●	
LED Channel Readout	●	

Facilities	Superb	Good	Fair	Poor
Ease Of Controls		●		
Built In Speaker		●		
Microphone Location		●		
Cabinet Construction		●		
Quality Of Control Switches		●		
Channel Indicator Readability		●		
Mounting Bracket		●		
Hand Book/Instructions		●		

Specifications	
Modes Of Operation	S.M. only
No. Of Channels	40
Weight	—
Dimensions	—
Supply Voltage	13.8V
RF Output Power	4 Watts
Frequency Stability	in spec.
Swamping	good
Sensitivity (RX)	V. good
Spurious Emissions	in spec.

CB VERDICT

Range	XXXX
Clarity of TX	XXXXX
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.

Equipment Review

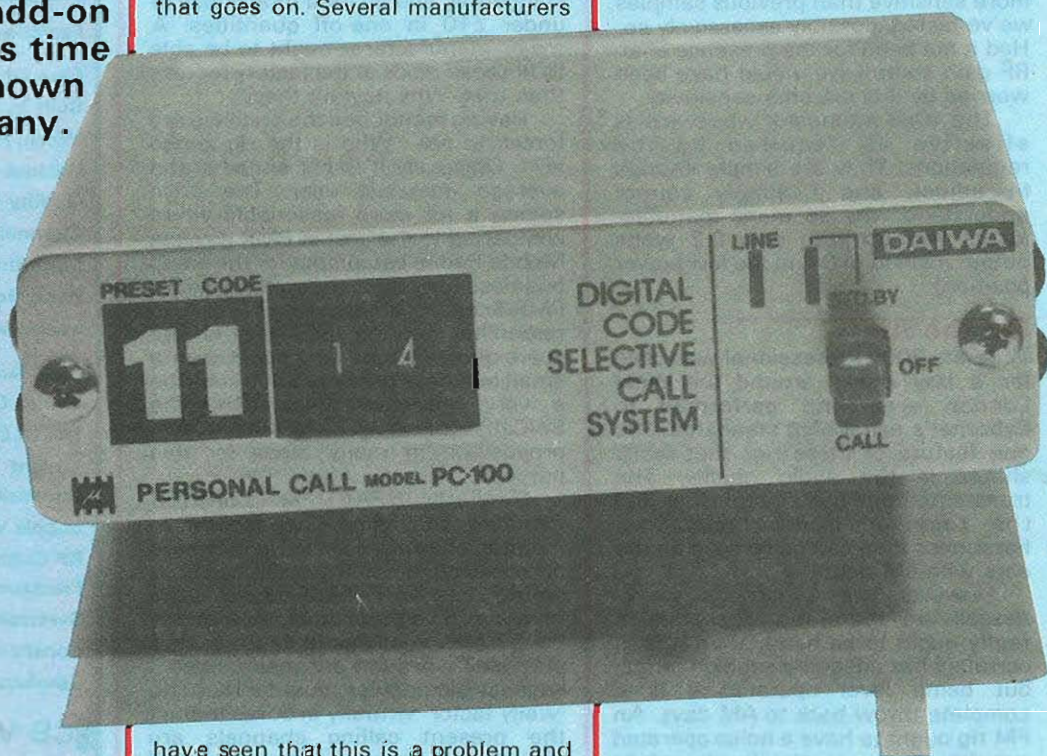


This month Andy R Giles has been looking at another version of those popular add-on sel-call units, this time from the well-known Daiwa company.

The Daiwa Selection

A quick listen around the channels will soon prove that those of us who had hoped to be able to use CB to pass messages to our nearest and dearest don't have a chance. How can you hope to compete with the bucketmouths and budding disc jockeys who hog the channels and make life difficult for everyone else? Would you ask your wife to monitor a channel all day so that you can call her? Even if you would, I doubt if most wives would be willing to leave a rig on all day after hearing the sort of thing that goes on. Several manufacturers

the best way to do it, it is not really practical for the average CB user. Commercial Sel-Call units tend to cost as much as a complete CB rig, if not more. The Daiwa Personal Call PC-100, however, is reasonably priced and extremely simple to use. The unit itself is slightly smaller than a packet of cigarettes, sturdily constructed and attractive to look at. It should be wired up as in the diagram. The red and black wires go to the power supply and the unit is then plugged into the external speaker socket of the rig. A lead with a 3.5mm jack plug on each end is provided for this purpose. There are no



have seen that this is a problem and there are now several Sel-Call gadgets on the market.

These devices allow a channel to be monitored for one specific call and they will not let any other signals get past the squelch, no matter how strong they are. This means that a rig can be left on all day and it will remain totally silent until the Sel-Call unit is activated by the call that you have been waiting for. This does not mean that the channel then becomes yours exclusively. Once the squelch has been opened, the rig will behave normally and all transmission will be received.

The usual way of adding Sel-Call to a radio system is to internally modify the rigs and although this is probably

more connections to make, apart from attaching the other Sel-Call unit to the other rig (I hope you've gathered that two are needed).

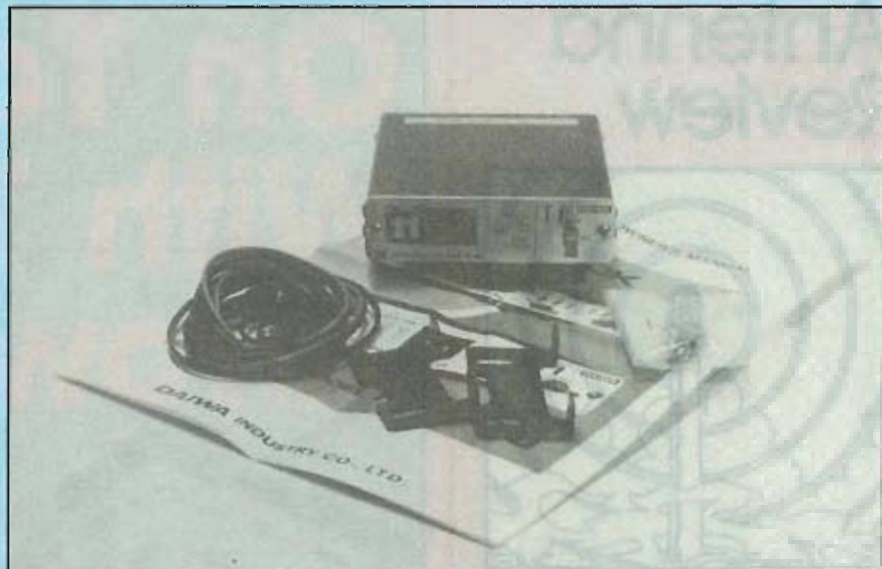
To use the system both users must first agree to monitor a specific channel. Then, when the unit is connected to the external speaker socket of the rig, the internal speaker is cut off and nothing can be heard. If you want to listen around the channels instead of waiting for a specific call, setting the switch on the right-hand side of the PC-100 to the OFF position, cancels the Sel-Call facility and turns the unit into a normal extension speaker, the sound comes out of the bottom of the case. When the same



switch is set to the Standby position, the unit screens all incoming calls, looking for the pre-arranged tones. These tones are selected by adjusting the two thumbwheels on the front panel.

If, for instance, the numbers 96 have been set, the unit will only respond to a signal from another PC-100 that has been set to those numbers. When it hears them, it will automatically revert to acting as an external speaker and the call can be heard normally. There is also a 3.5mm socket on the back for plugging in an external alarm, such as a buzzer, so that you can be alerted when a call is received. There is another similar socket for a different external speaker if you want to add another one.

There are two small LEDs just above the switch on the front panel. One lights to show that the power has been turned on and the other is used to adjust the volume control on the rig. The volume control should be turned until the LED is just glowing. When a call is received, it lights to full brightness.



equally well on FM, SSB or AM.

The PC-100 not only allows two people to contact each other without having to listen to hours of rubbish, it

much use to the average user but for anyone who has been trying to find a way of using CB for his fleet of vehicles, this could be the answer.



To initiate a call with the PC-100, make sure that the numbers on the switches correspond to the numbers on the one attached to the receiving rig and then place the microphone next to the speaker on the bottom of the unit. Press the PTT on the microphone and then press down on the switch on the front panel of the PC-100. It will then emit a series of tones and these will travel down the microphone and be transmitted by the rig. The rig at the other end will then hear these tones, the other PC-100 will recognise them and the squelch will open. It's very easy to use and because 100 different tones are available, there is virtually no chance of another PC-100 user being able to open your squelch. Because the unit operates by decoding audio tones that are generated by pulse width modulation, it will work

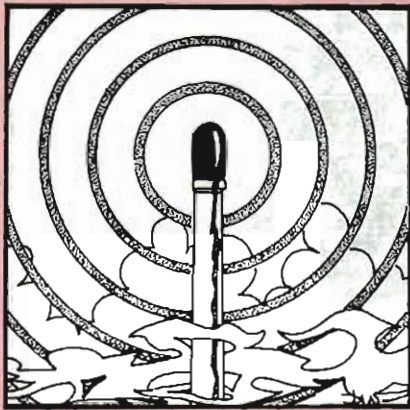
also allows small businesses to run a fleet of vans which can be called up individually or, with the aid of the PC-100's Group Call facility, all at once. This last feature is a little complicated, but very useful if several people have to be contacted simultaneously.

By inserting an 0 in the code number, groups of people can be called. For example, setting the numbers n0 (n = any number 1-9) on the thumbwheels, the stations are called n1 to n9, i.e. nine stations. 10 will call all the stations 11 to 19, 50 will call all the stations 51 to 59 and so on. By putting the 0 before the digit, i.e. 0n, 81 stations can be called. For example, 01 will call all stations 11 to 99. This feature is unlikely to be of

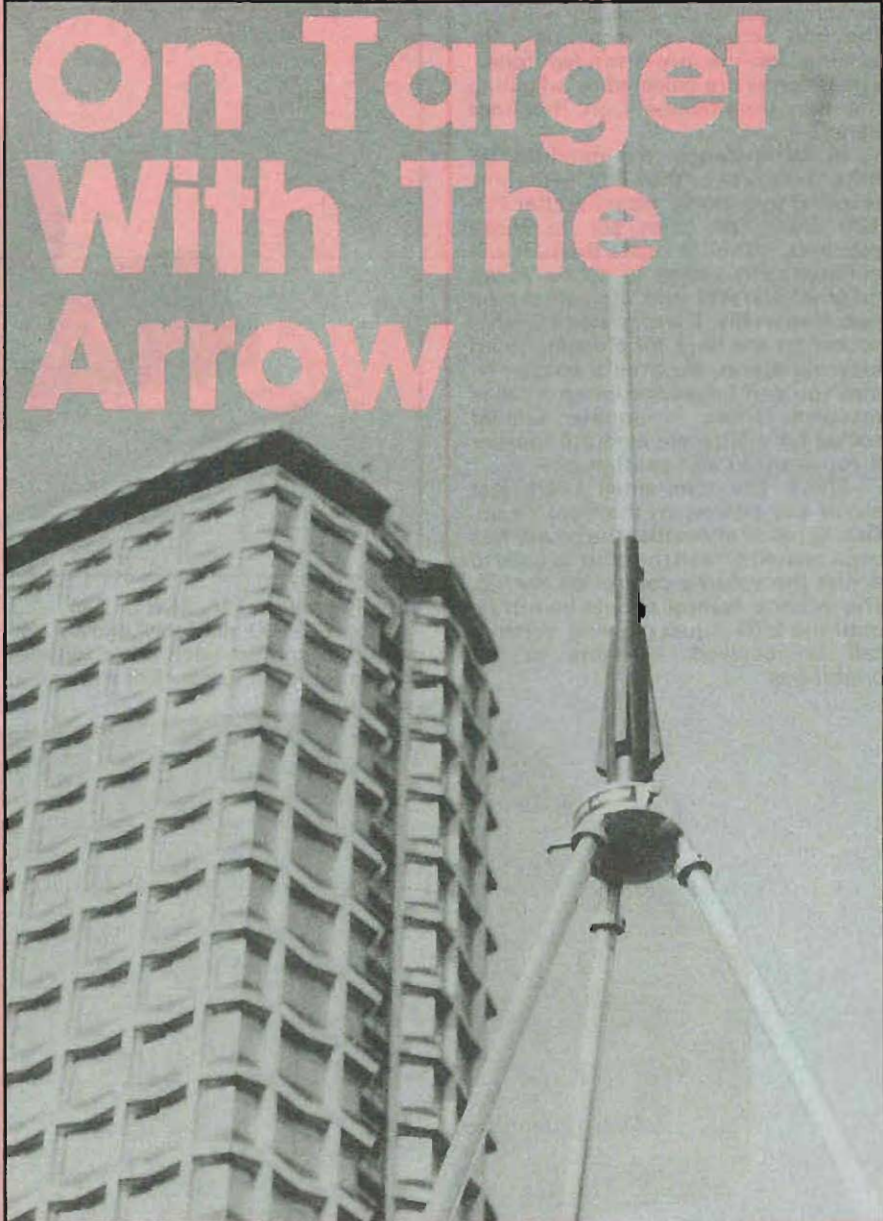
The PC-100 is made by Daiwa, a well-known Japanese communications company, and it is imported by Lowe Electronics of Chesterfield Road in Matlock, Derbyshire (Tel: 0629 2817/2740). The Price is £43.50 per unit, which is very reasonable. They are supplied complete with a power lead, an interconnecting lead, an instruction manual and a mounting bracket and when I played with them, I found them to be extremely effective. They made CB usable again.

CB

Antenna Review



Sharply angled down ground planes are what antennas are all about according to Brian W Wright. See what he thinks of the Silver Arrow.



It is clear from the amount of $\frac{1}{2}$, $\frac{5}{8}$ and $\frac{3}{4}$ wave homebase antennas that are up and still being erected, that breakers are clearly not satisfied with the legal base-station antennas that are available at present. The choice of these antennas is probably influenced by the fact that these tall aerials look impressive as well as performing very well. While the HO regulations do put a severe restriction on homebase antennas, it is possible to get a very good performance from a legal unit. The type of design which is clearly emerging as the most popular is the 'Starduster' type, with sharply angled down ground planes. This type will usually compare favourably with the $\frac{1}{2}$ wave types, especially if mounted high up (as most of the $\frac{1}{2}$ waves are) on a chimney or similar position. We are therefore this month reviewing yet another manufacturer's antenna of this design — the Silver Arrow from Aerial Supplied Ltd — to help in your choice.

The Silver Arrow is supplied as the usual box of aluminium rods and

plastic mouldings. Instructions comprise a single printed sheet with a brief text and a couple of diagrams. We found these a little sparse, as it is not clear how the groundplane support rods all fit together with their mouldings. This can be sorted out with a little common sense, but really ought to be indicated more clearly, as this part is more elaborate than on other antennas of this type. The fitting that forms the central hub of these supports has the mounting pole passed through it as is usual on this type of antenna. One point worth mentioning is that although some of the plastic mouldings that fit to the groundplane legs have open ends, these should be slid up the tube rather than pressed onto the tube via the open end. We tried the latter method and broke one of the mouldings.

The ground plane legs themselves are in two halves which are assembled by sliding one into the other and securing with a self tapping screw into the holes provided. The legs are then screwed onto the screw threads protruding from the base of the



radiating element assembly and held securely in place by a metal ring with a grub screw, which pinches the aluminium tube firmly onto the thread.

The radiating element, which has a total length of 1.55 metres including the coil, is supplied completely assembled onto its aluminium mounting boss with the SO 259 co-ax socket in a recess underneath, into which the mounting pole fits, completely covering the plug and co-ax from the weather. The pole is secured by three pinch screws through the side of the mounting boss. The co-ax runs down the inside of the mounting pole and out of the bottom or side, depending on the method of mounting. The black plastic coil housing is very smart and has fins protruding from the sides like the flights of an arrow and this is obviously where the antenna gets its name from.

The really good thing about the Silver Arrow, in common with both the other antennas of this type that we have tested, is that it is pre-tuned. Therefore, as we have said many times before, you just put it up, confident that you will not have to climb up to make adjustments. The pre-tuning of short loaded antennas as required by HO specifications needs care when producing in quantities, and shows that some effort has been put into the antenna by the manufacturer, to make life easier for the customer. Our test sample had an SWR of 1.1:1 on the best channel and 1.4:1 on the worst. The SWR will be much higher than this if the antenna is not clear of the ground or other obstructions, of course.

The Silver Arrow was mounted at the maximum legal height for 4 watts as is usual for our base station antenna test. On test, the Silver Arrow performed very well, and good contact was maintained throughout the tests, except when skip levels went exceptionally high and the test vehicle was at the limits of our test route. In fact it was rather unfortunate that during the period when the tests were conducted, the skip levels were much higher than normal, with Scottish breakers being received loud and clear in Sussex. Even so the Silver Arrow got through to the test vehicle without prolonged loss of contact.

Conclusion

In conclusion, we consider that while not the best performer of this type, the Silver Arrow is a good performance antenna, which we are sure will prove to be a popular choice among breakers who have the space to erect this type. Priced at £21.95 (plus £3.75 p&p) it is reasonable and good value, being a very well designed and constructed antenna.

This type of design must be right, because so many manufacturers are using it. A similar antenna both in performance and appearance that we have tested previously would be the Channelstar.

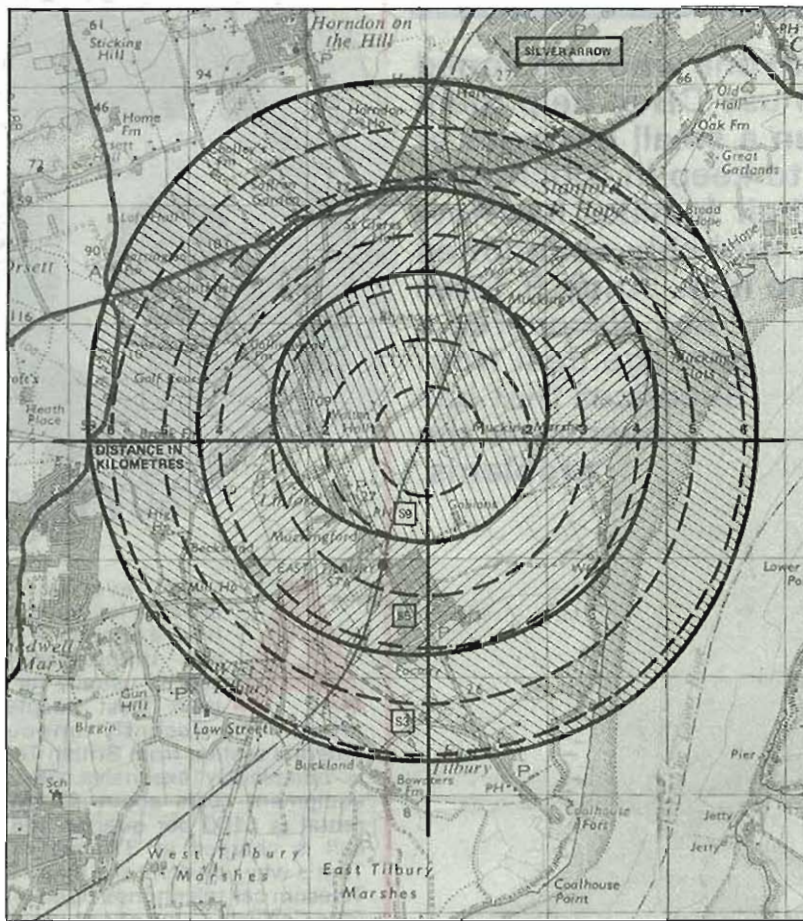
Our thanks to Aerial Supplies (Redditch) Ltd for supplying the test sample.

ANTENNA REVIEW DATA PANEL

SPECIFICATIONS

Model SILVER ARROW

Type Pretuned Base Station Antenna
Length Whip 1.5 metres — overall 4.2 metres
Frequency Range 27-28MHz
Max Power Handling 500W
Impedance 50 ohms
Cable Supplied None
Mounting Details 1 1/4 inch diameter pole
Supplier Aerial Supplies Ltd
Typical Price £21.95



REVIEW VERDICT

Performance XXXX
SWR Adjustment XXXXX
Construction XXXX

Installation XXXX
Instructions XX
Value XXXX

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.

SECURING THE MESSAGE



Anyone who had hoped to use CB to help them run a small business or to keep in touch with their families has now probably abandoned the idea. Andy R Giles has discovered a package deal from Securicor that has overcome the problems.



Almost everyone who drives a lot would like to have a telephone in their car. Unfortunately the cost is usually far more than most people can afford. The recently announced Emerald system from British Telecom is ridiculously expensive. The basic equipment costs about £2,250, the rental is £100 per quarter and each call is charged at 37p per minute. That's why you don't see many British Telecom car telephones fitted to Mk III Ford Cortinas — the phone would cost more to run than the car.

Why does everyone (including me) want a car telephone? Most of us don't make that many calls, and a large percentage of people do not have a telephone of any sort. For me, the appeal of a car telephone is that I need never be out of touch. If I get stuck in a traffic jam in the middle of Balls Pond Road, not only am I unable to contact anyone to tell them why I will be late, they cannot reach me to find out where I am. Unexpected delays caused by broken down cars or lorries that have shed their load have caused me to eat more dried out dinners than anything else. I really just want to be able to call home and say that I will be late so don't put the dinner on yet. The Securicor system allows the user to do this in two ways, but before explaining how it works I should explain why it is that the people who you would expect to be delivering your wages are

involved in radio telephones.

Securicor are a strange company. They are incredibly big but they don't do the things that a big company is expected to do. Most companies of their size advertise on television, in magazines, newspapers, on posters and anywhere else where they can create a brand image. That's why we all know what beanz means and what Guinness isn't. Securicor have adopted a different approach. They made sure that all of their vans carried their name in large easy-to-read letters and it wasn't long before people became used to seeing these vans and associated them with cash in transit. Just by making sure that their vans were easily identifiable they created a brand image. The trouble is that they have now diversified so much that this image is now definitely out of date. They have progressed from delivering just money to delivering most kinds of parcels. There is even a special express service for rushing records to retailers so that they can make a sale before their pubescent customers change their minds and fall in love with a different transvestite pop idol.

Securicor have many other services on offer, all stemming from their main business — security. Some of these services are of interest to individuals as well as big companies. For instance, they will train your dog for you. One of the ways in which they maintain the security of their vans is by keeping contact by radio and over a

period of time they have evolved a comprehensive radio network that now covers most of Britain. The radios sometimes need to be repaired so Securicor set up workshops to repair them. They also invested in a fleet of vans and fitted them out as mobile workshops so that they could repair radios wherever they happened to be. These mobile workshops are now available to anyone who uses commercial radio sets, i.e. minicab firms, building sites and so on. Securicor will send a van to fix a radio in situ instead of the user have to take the set into a workshop, which obviously saves a lot of time and inconvenience.

Message Handling

Once they had become heavily involved in radio, Securicor started to think of other ways of using the network. They began by offering outside companies just a message handling service because British Telecom, or whatever it was then called, were not particularly keen on the idea of independent companies offering a full mobile telephone system. The Securicor message handling service allowed companies who subscribed to it to pass messages to their employees via Securicor operators and despite its limitations, the system became successful. Eventually official policy was changed and permission was given for Securicor's base station sets to be connected to the telephone lines, thus allowing subscribers to talk directly to their offices. That is how the system works today and it is now available to individuals as well as companies.

There are two levels of service available on Relayfone, Securicor's name for their service. First you have

to obtain the radio. This can either be bought or rented from Securicor. Once it has been installed and a callsign allocated, you can then opt for just the message handling service on its own or you can pay more and have the interconnect facility as well. Interconnect allows you to talk directly to other people via British Telecom's telephone lines and at first glance this would seem to be the most desirable feature, but when I used it, I found that I didn't really need it.

I borrowed one of these gadgets for a few weeks and I was most reluctant to give it back. The radio is very easy to install (this is usually done for you) and after it was fitted I was told my callsign, which is normally a colour and three digits, i.e. Black 123 or Orange 456. To stop people pirating the system the rig incorporates a complicated Sel-Call unit that is programmed with the callsign. To contact the radio room, you have to press the Call button. The radio then sends out a string of tones that are received by the Securicor operator. These tones activate an LED display that shows the operator your callsign and he will then send back the same tones to you. These are received by your radio which reacts by automatically sending back a signal to show that the operator's signal was received. The Squelch also opens automatically and a light comes on to show that you have been connected.

Now comes the sneaky part, the operator does not say anything, you have to tell him your callsign. This must be the same as the one that is displayed on his screen, so it is no good stealing a Securicor radio in the hope of using it because you will not know which callsign the set has been programmed to transmit. Even if you do have the equipment that is needed to decode the callsign, you would not be able to use it because the operators have a file that contains all the details of callsign users, including their names, the numbers that they usually call and sometimes even the make and colour of their car.

Once you have identified yourself to the operator, you can then ask him to either pass a message for you or for an interconnect call. The Securicor operators are extremely helpful and I found that I rarely needed to make a telephone call myself. When I was stuck in a traffic jam or if I was running late and found myself halfway along the M1 when I should have been at home, it seemed pointless making an interconnect call just to say that I was going to be half an hour late. It was a lot easier to ask the operator to do it for me. They will pass any message and call you back to confirm that it has





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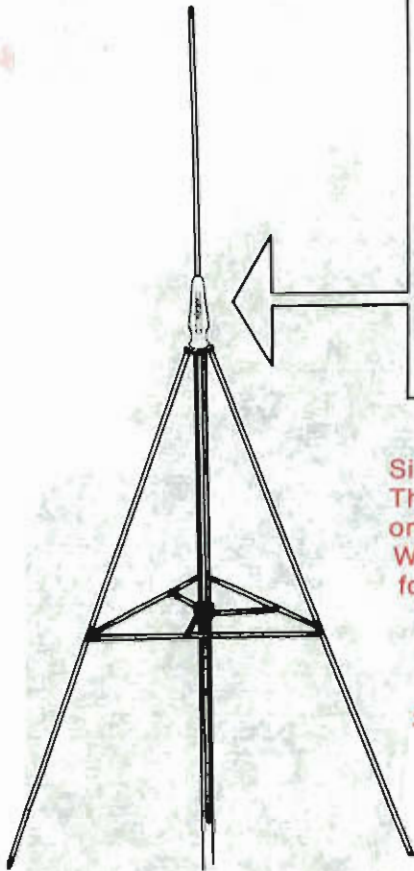
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been received. I also found that it is often better to have them pass the message, because there are usually people chasing me to ask for things that I haven't done and I do not want to talk to them. Having an operator pass on a message means that I don't have to think up excuses.

The operators are not there just to pass on messages, they are more like secretaries. They could find out the time of the next train to Liverpool, book you on it with your Access number and even call their Liverpool office and find out what the weather is like for you. They can also help you to find the street you are looking for in a strange town and book you into a hotel before you get there. Their coverage is almost nationwide and this means that they can offer a very comprehensive service and when there is nearly always an operator within range who will do all these things for you, it makes calling someone yourself almost unnecessary.

If you do opt for the interconnect facility, you will not be able to dial directly from the car, everything is still done through the operator. He takes the number that you want, along with the name of the company (if applicable) and the name of the person that you want to talk to. He will then call the number for you and contact that person. He will then make sure that it is a good line and if it is, he will call you back. When you answer, he will ask you to change channels and you will then be connected directly to your contact. This may sound a little

cumbersome but again, I found it easier than using a direct-dial telephone.

Think what happens with most telephone calls. If it is a company that you are calling, you will usually get through to a switchboard. The girl will then connect you to the relevant person, if he is available. I am sure that we have all been kept waiting for 10 minutes or so, either because the girl has forgotten us, or because she cannot find the person that we want, or because he is on another line and she cannot connect us until he has finished that call. This often happens when calling friends at home as well. How many times have you been told that the person that you want will not be a minute and then found yourself holding on for what seemed like hours? If this were to happen with a British telecom car telephone, each minute would be costing 37p, even though you were not talking to anybody. With the Securicor system, you are not connected until the person that you have named is on the other end of the line, the operator does all the waiting for you.

There is one drawback with Securicor's interconnect calls, you are only allowed to speak for two minutes. This may not sound long but when you consider that there is no waiting involved. It should be long enough for most people. This minor inconvenience is more than made up for by the fact that Securicor do not charge for interconnect calls. You can make as many direct calls as you like, as often

as you like, to anywhere in Britain and there will be no charge as this is all included in the rental. This would make you think that the rental charges must be even higher than British Telecom's but that is not so, as can be seen from the prices shown in the separate box. The prices may seem a lot for an individual but for a small businessman such as a builder with a couple of vans, it is a very cheap way of not only keeping in touch with his employees, but also of having a secretary who will deal with all of his callers.

The service works both ways. Not only can you call out from your car, people can call you. They call the Securicor office and, then can either ask for a message to be passed or for an interconnect call. The operator will then call you in your car and either pass on the message or connect you to the person who is calling. If you are out of the car, the set will automatically transmit back a signal that lets the operator know that his call was received and a light on the front panel of the rig will stay on to let you know that there is a message waiting to be collected. If your messages are likely to be urgent and you want to know that you are being called while you are not in the car, Securicor are able to supply a bleeper that will sound whenever the operator calls you car number. You can then rush back to the car and take the message.

I used this service for a short while and I was most impressed with it. As it works by radio, it has the usual problems that are associated with radio signals, fading, noise and so on, but Securicor have installed enough repeaters for these to be minimised. I think that it offers tremendous value for money — especially if you can claim it as a business expense.

We would like to thank the Securicor Carphone division of Bredhurst Electronics, Handcross, Sussex, (Tel: 0444 400124) for the loan of the review equipment that was used in this article.

Prices

The complete service, including interconnect costs £55 per month. Message handling on its own is £34 per month. If you live in London there is a surcharge of £10 per month. The radios cost from £20 per month to lease, depending on the set (there's even one that can be taken out of the car and carried around in a shoulder bag). The radios can also be bought outright and they cost between £600 and £1000, again depending on the model. If you do not travel around the country, it is possible to obtain the full service for as little as £25 per month, in some areas. Securicor offer a Single Area Service for people who live in certain parts of the country and it is worthwhile finding out if you live in one of the specified areas as this makes the service very cheap. The charges for fitting and antennas vary so they should be checked when inquiring.

CB
Citizens' Band

OCTOBER

ISSUE WILL BE ON SALE

FRIDAY

16

SEPTEMBER

NEXT MONTH

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

'So what am I going to get for my 85 pence next month?', I hear you ask. Well quite a lot John, as it happens. Let's consult the old editorial board. Ah, yes, Brian W Wright will be twiddling around with a 24 inch Dial-a-Match antenna, and there's the long promised article on long wire antenna, courtesy of Mack the Hack.

Expect a report from Andy Giles on the AKD direction finder, and we've also managed to come up with yet another cordless phone, this time from Maxcom. Yet again we'll be quizzing one of our experts about his rig and how he came to choose it, and CB's answer to Conan the Librarian (the mighty Twong) will be back with another fun packed adventure.

Mike Newbold continues to be swamped with QSL cards, and the female version of Mack the Hack, alias Philadelphia Judd, will be bringing a feminine touch to the pages in her Ladybreaker column.

But what about a rig check I hear

you ask? Well we're all crossing our fingers here, but we reckon that Chris Peterson might be getting his magic digits on a Reftec 934. Now we don't want to build your hopes up, but we think that if you don't get next month's issue, you may live to regret it.

COMPETITION

We have Telecomms of Portsmouth to thank for the prizes in this month's competition. We thought we'd choose something which maybe a lot of breakers would like, but wouldn't necessarily be able to splash out the readies to give themselves a treat.

So what have we got? Well first off we have the AKD precision direction finder. If you have read this month's update page you should know all about this handy little gadget — hours of fun guaranteed. That is the first prize, to be followed up by a Zenith speech processor, the

P202, for the runner-up. Now what the P202 does is provide an increase in signal output level and reduce the dynamic range of the signal. The unit can make the difference between a signal which is readable and one which is barely audible.

These two units would cost you just under £100 in the shops, but we're giving them away. All you have to do is look at the picture at the bottom of the page showing the young lady relaxing in the bath with the Fidelity Wanderer cordless phone. Think up a witty caption to go into the balloon and send it to us on a postcard. Now please make your entries respectable, and they must be with us no later than September 16.

Abide by the rules as usual which are in microscopic writing at the bottom of this page.

The Rules

No employees of ASP are allowed to enter. All entries must be here by second post Friday, September 16. The Editor's decision is final, and don't forget your name and address. Entries to Caption Competition, Citizen's Band, ASP Ltd., 145 Charing Cross Road, London WC2H 0EE.



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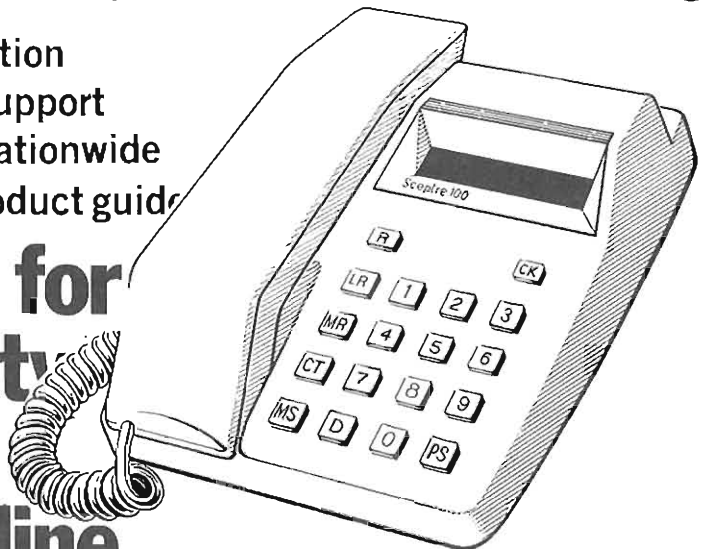
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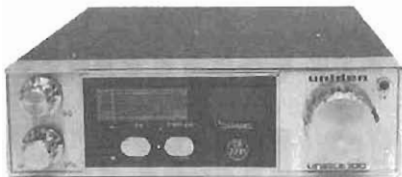
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— PRESENT —



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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.



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GENERAL SPECIFICATIONS UNIACE 300

Channels: 40
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Microphone: 600 Ohms, dynamic type
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Power source: 250/230 A.C or 13.2v D.C.

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Mack chat

Mack says goodbye to his 934 rig, and offers some observations on its future

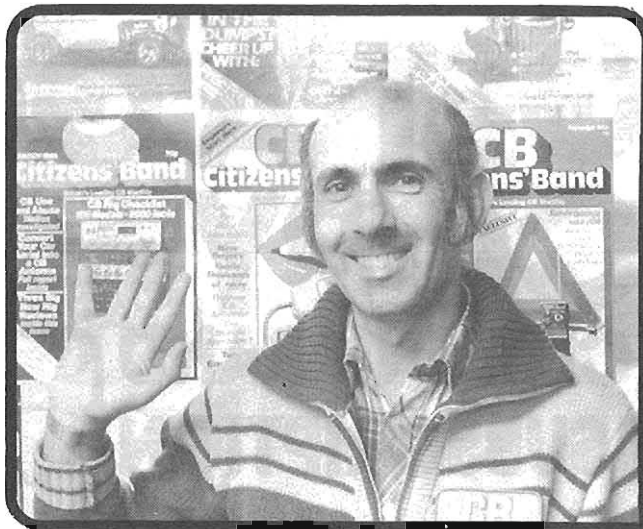
It was with great reluctance that I had to return the Reftec 934 rig to its owners, and once more I would like to thank Tony Lane, and Colin Webb of 934 Communications for the loan of the rig, antennas, and other accessories. My final analysis of the 934 Mhz system is mixed.

The frequency has few advantages over 27 Mhz, the best being that it is at present reasonably quiet, with very few breakers on the 20 channels, but I am sure this is due to the high price of the equipment. A rig could cost you up to £250 and another £40-100 for a good base antenna, although mobile antennas are a bit cheaper. These prices are for Reftec equipment but I have been told that you may be able to find some stockists that will give a discount.

The most often asked questions are 'What's the range?' or 'How far can it get out?' Mobile to mobile performance is very poor unless both stations are very close to each other or in open country. Mobile to base is better but again depends on location. If you live on a hill then 934 is for you as base to base working is excellent. As you may know, beam antennas are allowed but with a limit of only 4 elements. I did not have the opportunity to do any proper tests with another mobile except the time that I worked Ron 276 who was square wheeled in Kent while I was square wheeled near St Oysth Essex. Ron 276 claims that he has worked another station 'Bob' of Lowestoft whilst he was on Detley Hill which is a high spot near Maidstone Kent. The distance of this contact is 97 miles as the RF flies.

At St Oysth, I had found a clear open spot about 50 feet above sea level. I had fitted the Reftec Pro-colinear to a eight foot pole that was tied to the bumper of the car. I found a net of breakers, some of whom I had conversed with earlier in the day. The strongest of these stations was Vic 312, home based at Althorne, Essex 18 miles away and his signal was 30 plus with all the 'S' lights of the rig lit. Also in the net was Mike at Canvey Island, 30 miles no lights but a good clear signal. Frank 006 at Southend 23 miles, and Pat, Leigh-on-Sea 26 miles. All reasonable signals. These were the only stations that I copied while in the Clacton area, although I was told that others came in from time to time.

So you may ask how does this frequency compare with the 27 Mhz? Well, I have sat in the same spot with my Uniace and Half Breed on a magmount and copied



another mobile in Margate, Kent 32 miles at a S 9. As I mentioned before, when at my home base I have not yet been able to work any stations in Weybridge, Surrey on 27, yet I have done so with the 934. The 934, as I have said before, is a quiet frequency with not very many people on the channels. Asking around, chatting to other dealers, and also referring to the serial numbers on the rig, I estimate that there could only be 400 to 500 rigs in circulation at the present time. Spread that around the country, and it does make them a bit thin on the ground.

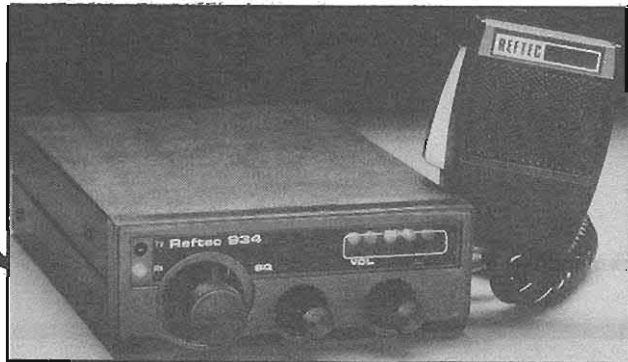
I know some people who bought 934 rigs, and after a month or so of not hearing any other stations just got tired of listening and so they just don't bother to switch on so much nowadays. If you want a legal frequency where you can be free from the wallies and converse in peace with your mates then 934 could be for you, providing, of course, you have around £300 going spare. How long will the frequency stay clear? Other manufacturers are taking an interest in the 934 and at any time now Grandstand may put their 934 on the market and at a lower price than Reftec. I have also been led to believe that a number of business organisations have purchased 934's as a cheap form of PMR system. For now, it's working well, as there is discipline on the frequency, and, as I have also told you before, in some areas channels 1 to 10 are reserved for business use and the other 10 channels for pure CB. However, what happens if more users come on the band? No one can stop them using whatever channel they wish.

As you may know, there have been changes to the 934 frequency. The UK changes for 934 are to be adjusted in line with a recent international agreement on a channel plan for Europe. What this means is that the present frequencies are to be moved downwards 12½ KHz. Reftec are already producing rigs (934-2) at the new frequency and if you own an old Reftec (934-1) they will do the necessities for a small fee. A telephone chat to George Cole of Everite CB at Hinkley was followed by interesting literature explaining that you can use the 934-1 on the old frequency until 31-12-1987, but after 30-4-1984 no more 934-1 can be sold.

So if you own a 934-1 can you talk to a station with a 934-2? George Cole says he has copied a friend using 934-1 five miles away, not a perfect copy, but very acceptable. It is strongly rumoured that an extra 20 channels will be allowed in the future. In theory one could put a total of 80 channels at 12½Khz spacing quite easily in the allocated 934 band.

Another rumour doing the rounds is that the 934 will be allowed repeaters. Sorry, definitely not true, say the Home Office. So I've had a taste of 934. My only regret is that there weren't any local breakers to chat to. During the 21 days that I had the rig I only worked three other stations from my home 20 and the rig was on every evening. I like 934 but alas at present I can't afford one, but if the price is reduced then maybe by some means I'll join the other privileged few.

CB



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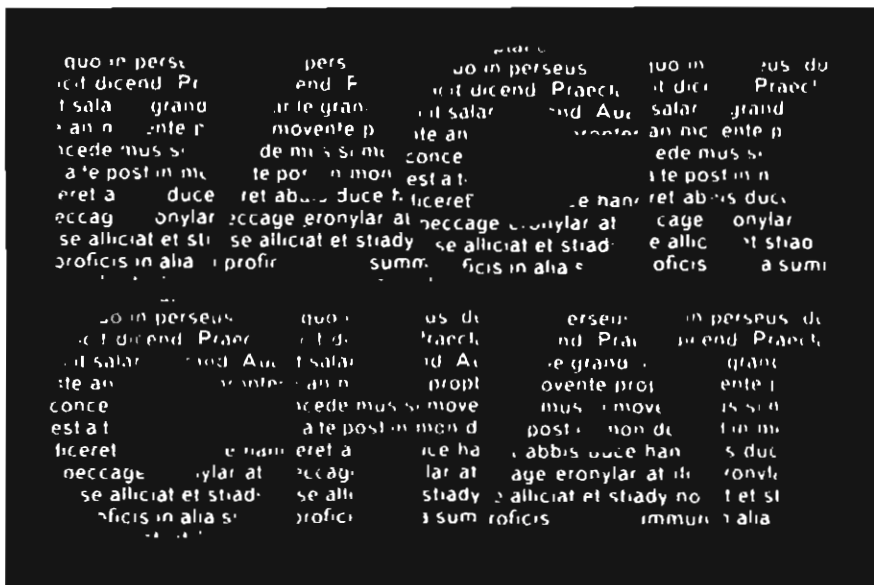
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Backchat goes truly international this month with letters from Zimbabwe and the Republic of Ireland plus the usual hot topics.



Skip Check

We've had many letters and phone calls about the great copies made in the summer, particularly in the middle of June. Here's a typical example from Nigel Marston of Sunderland . . .

During the great conditions all over the UK from the 16th to 21st of June, I could not resist telling you about some of my copies. After battling through wallies etc, I got a grand total of 28 in four days ranging in distance from 225 miles in Ipswich, to 460 miles in Paris, with most of them QSL's and on tape.

I hope you publish this letter to prove to people that I and they can get copies like this on just over three watts and not 3Kw. Also, to try and persuade those stubborn anti-FM skip fanatics that it is possible. Also to convince the equally stubborn people who say DXing on FM is illegal. *Well said Nigel.*

Ace Shop

Here's one from Graham Bloss of Greenhithe in Kent who not only reads Mack Chat, but actually agrees with what our hero has written . . .

I read what Mack said about the CQCB shop in Gravesend and I'm only too pleased to be able to endorse his comments about this ace shop. Pat and Lyn have always been very helpful both with my phone inquiries and also personal calls at the shop. They always have time for a word of advice, even when busy, and they don't mind showing you CB gear even if you are only thinking about getting something. The number of times I've been in there studying accessories!

I have known about the shop since December '82 and two of my three rigs, plus two antennas and all my odds and ends were all bought there, so I think I speak with some authority on the subject. If there are any prospective new breakers out there in North West Kent, they could do a lot worse than visit the shop (us old breakers already go there). *It's always nice to hear of a friendly and informed CB shop, it does make such a lot of difference.*

Copy, Copy, Copy

Mr. D. Bailey of Sutherland in Scotland would like to see more technical information in the magazine, and also offers a tip to cure some forms of TVI . . .

With a growing number of CBer's 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 or 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 photocopying service for a circuit diagram and a component layout of the various sets at say £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.

By the way here's a tip about 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 pos or neg 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, so it might be worth others trying it.

Thanks for the tip, and we take the point about articles on modifications to CB equipment, however offering a photocopying service for circuit diagrams would be pretty well impossible. To begin with, even our reviewers sometimes have problems getting circuit diagrams out of manufacturers, and the thought of spending hours at the photocopying machine and also trying to get the magazine out doesn't bear thinking about!

Zimbabwe Breakers

Just to prove that CB, and Citizen's Band magazine are truly international, here is a letter from Mr. J. P. Grey

who is based in Zimbabwe. It appears that there is no equivalent of the mag out there . . .

I am writing to thank you for an enjoyable hour and half reading. The magazine was passed to me by a friend (another C.B. fanatic) and we both drooled over the various types of equipment and accessories contained within, all obtainable in your part of the world.

As you are no doubt aware we are unable to purchase these types of magazines here, therefore when we manage to obtain one its like Christmas all over again. The ohs and aahs and cor blimeys are quite horrendous, just like kids in a toy shop.

I am at present inquiring from various C.B. manufacturers whether they would be interested in an agency here. There are quite a few C.B. users here but in no way comparable with the numbers in the U.K.

Once again thank you for you magazine and we look forward to the next one we acquire.

Irish Eye-Opener

Des Walsh writes from the Republic of Ireland with some interesting information about equipment, and his thoughts for the future development of CB . . .

I have been testing the effectiveness of the British type 27MHz FM CB units here to find out their effective range under normal conditions, particularly in the evenings when 'skip' interference in the band is gone. I use a full size dipole aerial at about 30 feet above ground level and have 4 watts and 20 watts at my disposal. Good mobile reception is available in flat countryside to about 15 miles but is much reduced in hilly areas where intervening hills attenuate the signal very quickly. Point to point operation is available at 8 to 15 miles over intervening 500 foot high hills to 4 watt stations using similar resonant aerials.

Even using the high power level, no television interference is apparent on VHF Band 1 or 3 or UHF television on a variety of TV receivers. Interference would be a deficiency in TV receiver or signal booster equipment which should not in any case be capable of responding to 27MHz signals of reasonable strength.

With the imminent disappearance of Band 1 television (40-68MHz) there should now be an allocation in that part of the spectrum for a more efficient CB service using good quality equipment for proper local communications including repeaters and tone calling. The upper part of the 60 to 68MHz part of Band 1 would be suitable for fixed, mobile and portable usage and a one or two MHz chunk for public use would be welcome. This would enable Public Radio Communications to be made available to all the people and perhaps establish a more useful and more worldwide specification. Perhaps in time 934MHz equipment will become reasonably priced but I think that technology at 60MHz would work out at less than

The Harrier rig, a far cry from crystal days

half the price in the end to the consumer.

27MHz has too many practical limitations for continued usage for LOCAL coverage . . . aerial restrictions as to size and awkwardness, skip interference during the daytime, ineffectiveness due to inefficiencies of portable equipment, etc. Two to three miles of practical range of 27MHz is not enough and I cannot see hope for much improvement in the future (except through full size aerials, base aerials at 50ft AGL, 25-50 watts power etc).

I would welcome readers comments on the future of CB radio, in particular taking into account my comments.

DXing On The 9

The use and misuse of Channel 9, continues to be a hot topic in our postbag. Mr. R. Connolly of Northern Ireland has some stern words to say to English DXers on the subject . . .

In your July issue, you published an article called Breaking The Code, which although referring to the use of Channel 19, also applies far more to Channel 9. On the very day your magazine went on sale, the skip built up and many breakers began to DX from the South of England and the Midlands to Scottish and Northern Ireland stations.

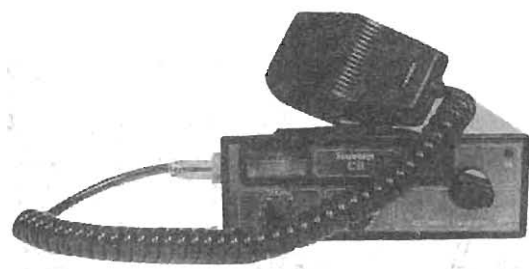
This skip lasted for about three days, and many stations were being received by me at S9 plus R5. However, I would like to say through your columns, as an independent channel 9 monitor, that I was appalled to find many English stations actually DXing on channel 9. I would like to appeal to these DXers not to use it, and I am sure my feelings will be backed up by REACT and THAMES etc. At best somebody could be broken down, at worst someone could die as a result of DXers blocking channel 9.

Miffed Monitor

Still on the great channel 9 debate, Mr. Michael Williamson of Saffron Walden is a long suffering monitor with a grievance . . .

I am writing to you with a complaint about the people who say that channel 9 is not properly monitored. As I sit here at 17.40, there is a breaker from Glasgow hitting me at 30 db complaining that he cannot hear his copy.

What will he do if an emergency comes up? He is coming over any possible local mobile and many base stations as well. I personally sit on channel 9 in my local area from 1700 to 1800 hours and from 2100 to 2200 on Saturdays. Saturday is the day



when everyone wallies on the 9, and in future I think I shall probably change my monitoring days and times as all I'm getting is an unrewarded earbashing.

For all those who complain about the lack of coverage on channel 9, if one in 10 volunteered their services for about two hours a week, then we would have superb monitoring!

From Crystals to CB

Mr. W. S. Loxton of Lincolnshire goes even futher . . .

So the hoppers on channel 19 are annoyed because other CBs interrupt them when giving directions to motorists. Channels 19 and 14 are calling channels, and once contact is made they should do the decent thing and pick a channel.

As for CB radio, in the Twenties with a valve set and using a close coupled oscillator-coil, it was possible to speak to crystal set-owning friends using the headphones as a microphone. My aerial energised their aerials, and they could answer me using their headphones. This was only possible after the BBC service had closed down for the evening. Incidentally, I have just started CB with a Harrier set.

P.S. Over here a call to clear channel 19 is obeyed instantly for announcements such as stolen cars.

Striking Out

Peter Smith of Weston-Super-Mare describes the death of his rig, but his story has a sting in the tail . . .

Recently our TV aerial was hit by lightning which found its way down the co-ax and destroyed the video and television. Not being unduly concerned about this I switched on my beloved CB, only to find that it had also died, taking with it my rod to that great base station in the sky. Also the 5/7 amp life support waned under this harsh unjust act of the gods.

After a lengthy post mortem, by CB Doc Shoestring it was pronounced "Death By Electroction". The tombstone read:

Here lies a brave and valiant rig
A small but plucky little twig
A much missed friend late at night
Struck down by nature's ball of light

From (now wait for it) White
Lighting — and Peter assures us that
this is the truth.

CB

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

News of clubs from the Highlands of Scotland, the wilds of Wales and the South Coast of England.



First off this month is a young breaker's club from Gwynedd in Wales. Although older members are allowed, they only qualify as associate members and are not allowed to vote. Anyway, I'll let Erika the club secretary tell you all about it...

Lima Yankee

I would like to introduce myself and my club, the Lima Yankee Radio Club. The club was the idea of a nine year old boy who is now the president, and who's handle is Fizz Bomb. The club got its name from the first and last letter's of Llanystumdwy, this being the president's home 20.

The club was formed on New Year Eve 1982 and so far has a membership of 272. The club is for young breakers, full members being under 16 and associate members being those over 16 - only full members have voting rights. There is no club subscription as we meet on the air, and membership includes hams, AM and FM breakers. The only club rule is that anyone found swearing or wallying is immediately removed.

We have a club news broadcast on Friday evenings on channel 29 at 8 pm which is read both in English and Welsh by myself and JPR who is the area chairman. We have eyeballs every Sunday with everyone welcome and have competitions on the air. We look forward to your magazine every month especially the Q and A column.

Pierrot (Erika)
Greenacres,
Lon Grves,
Morfa Nefyn,
Gwynedd,
North Wales.

From one group of Celts to another, as we tune into the airwaves of Fraserburgh in Scotland.

Northsound

We are a new club, having started in January '83, with a membership of 312 to date. We hold our meetings every fortnight in Inverallochy Community Centre and also hold competitions between other clubs in

our area. So far we've had Name That Tune, Play Your Cards Right and a snooker competition.

I have been CBing and DXing for 3 1/2/4 years and had a little English skip recently which was excellent. I started the India Bravo DX club within our club and so far we have 70 members with quite a number who have now bought their own SSB equipment.

George Stephen
Northsound,
PO Box 3,
Fraserburgh,
Aberdeenshire,
Scotland.



Its down to the South Coast of England now to hear from Ian who tells us about a club based in Worthing.

Whisky Sierra DX Group

I am writing on behalf of the Whisky Sierra DX Group and we meet at the Fountain in Chapel Road, Worthing every other Thursday. The club was formed in October 1982 and has grown steadily since. Membership is now over 40 and we have a chairman and six other committee members, of which I am one. I am the entertainments organiser, along with another member Neil, we are currently trying to organise a camping weekend and barbecue.

Our club is open to visitors and we would also like to visit other clubs. At the club we sell maps, note pads, books of matches, key fobs and of course QSL cards. We read your

mag because I think it does a lot for SSB and other CB modrs.

Ian WS12,
PO Box 39,
Worthing,
West Sussex.

Meanwhile, back in Wales, Barmouth to be precise, Mark Sutton can be found extolling the virtues of his club . . . and welcoming holiday makers.

The Delta Tangos

I am writing to tell you that our club is now in its second year and is still going strong. We have arranged many activities including open eyeballs, sponsored cycle rides, swimming and discos. Also we have helped a few charities. Our aim is to get more members, especially those who can come here on holiday. Subscriptions are £2 for adults and £1 for juniors. At the moment we

have 70 members, but are growing every month. If any good buddies come to Gwynedd, just call for a Delta Tango breaker and if any of us are listening, which we usually are, we'd be glad of an eyeball.

Mark Sutton,
DTRC,
Post Office,
Talybont
Barmouth,
Gwynedd.

CLUB DIRECTORY

ENGLAND BERKSHIRE

ROYAL COUNTY CB CLUB

Chairman: Bill Alder
103 Alpine Street,
Reading,
Berks.
Meet: Mondays at PHAB Club, Silver Street, Reading 7.30

HAMPSHIRE

BORDER CB CLUB

Chairman: The Dealer
PO Box 117,
Southampton.
Meet: Wednesday at The Anchor, Redbridge, Southampton 7pm

FARNBOROUGH DX GROUP

PO Box 20,
Farnborough,
Hants.
Meet: Anytime on any channel

KENT

BULL RING BREAKERS CLUB

Chairman: David Burt
47 Hardy Street,
Maidstone,
Kent.

NOTTINGHAMSHIRE

LITTLE ANNIE BREAKERS CLUB

Chairman: Firestik
110 Hungerhill Road,
St. Ann's,
Notts.
Meet: Thursdays at Bluebell Hill Community Centre St. Ann's at 7.30

OXFORDSHIRE

DELTA BRAVO CLUB

Chairman: Dusty Bin
Cropredy,
Nr Banbury,
Oxon.
Meet: The Red Lion, Wardington, nr Banbury, Saturdays at 8.30

SUSSEX

WHISKY SEIRRA DX CLUB

PO Box 39,
Worthing,
W. Sussex.
Meet: The Fountain, Chapel Rd., Worthing on alternate Thursdays

WILTSHIRE

THE STONE RING BREAKERS CLUB

Chairman: The Rambler
13 Heath Square,
Larkhill,
Salisbury,
Wilts.
Meet: The Catherine Wheel alternate Wednesdays

SCOTLAND

CLYDESIDE BREAKERS

Chairman: Eric McWhinnie
Lillybank,
Brewery Street,
Johnstone PA5 8PQ
Meet: Golden Pheasant Hotel, Linwood, on alternate Sundays at 7.30

NORTHSOUND

PO Box 3,
Fraserburgh,
Aberdeenshire.

NORTHERN IRELAND

MARCONI CB CLUB

Chairman: Paddy McKay
Ballyvoy,
Ballycastle,
Co Antrim.
Meet: Castle Bar, Ballycastle, first Monday of the month

NORTH STAR

191 Orkney Drive,
Ballykeel,
Ballymena.

WALES

DYFFRYN AND TALYBONT RADIO CLUB

Chairman: Ron Woodall
Post Office Talybont,
Barmouth,
Gwynedd.
Meet: Dyffryn Village Hall alternate Thursdays at 7.30

CITIZENS' BAND CLUB DIRECTORY REGISTRATION FORM



CLUB NAME ()

CHAIRMAN ()

Secretary ()

PR Contact ()

Contact Address ()

. (Tel No.)

MEETING PLACE, DAY AND TIME ()

.

No. of members

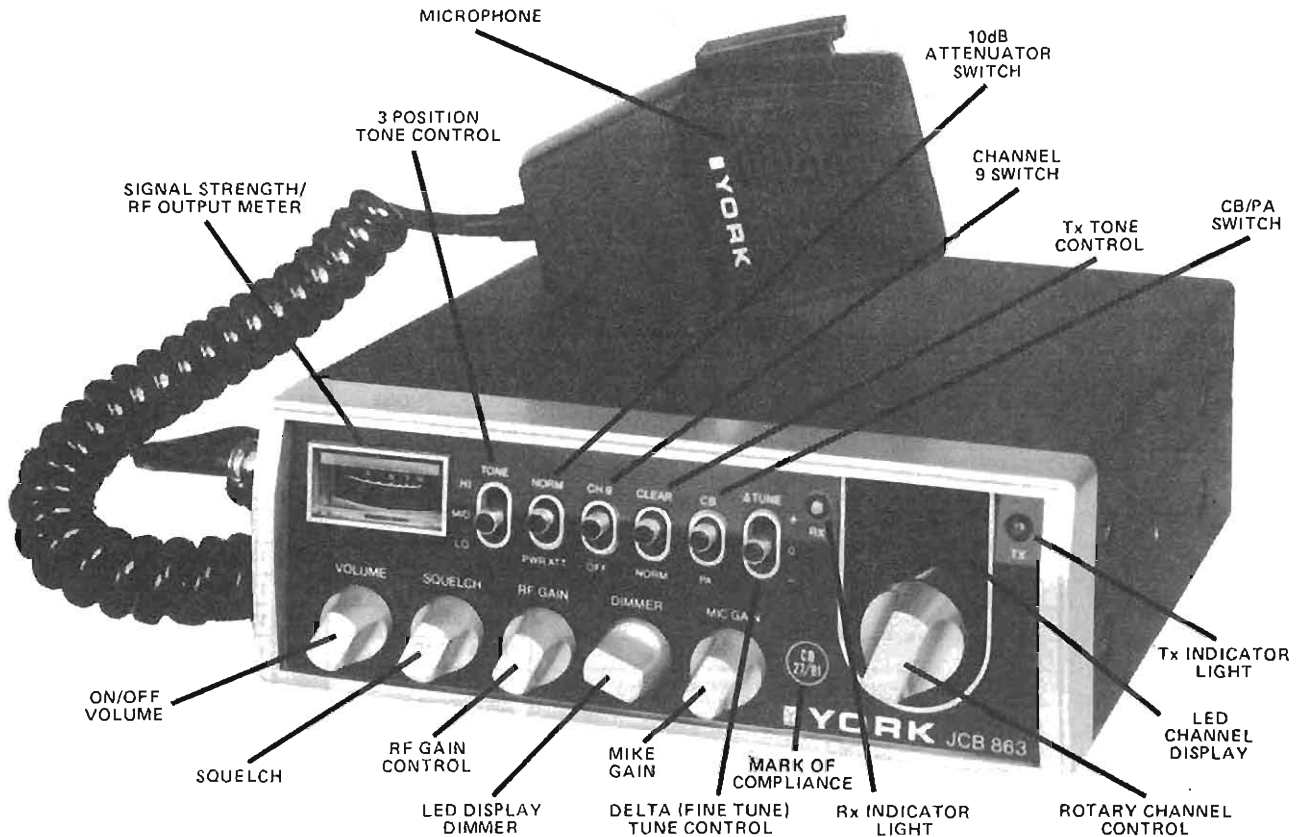
Position in club

Fee/sub etc (Committee members only please)

Please mark (*) information that may be published.

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 of the signal you are transmitting. The S-Meter is usually calibrated 1-9 and the nearer to the 9 the needle is when you are receiving a

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 or 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	
AMSTRAD	Amstrad Consumer Electronics, 1-7 Garman Road, London N17	CB 901	40	13.8VDC	£40
AUDIO LINE	Telecomms, 189 London Road, North End, Portsmouth	341	40	13.8VDC	£60
AUDIO LINE		340	40	13.8VDC	£40
AUDIO LINE		342	40	13.2VDC	£115
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		6-STAR	40	13.8VDC	£100
COLT	KB & Co Ltd, 202 Cheetham Hill Rd, Manchester	295	40	13.8VDC	£49.99
COMMTRON	Roger D, 831 Mansfield Rd, Notts	CB40F	40	13.8VDC	£70
COMMTRON		CXX	40	13.8VDC	£69.95
CYBERNET	Goodmans Loudspeakers Ltd, Dowley 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 Bal Royal, St Lawrence Jersey CI	M40FM SPECIAL	40	13.8VDC	£100
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	Best Ware Ltd, Ripon Way, Harrogate, N. Yorks	BLUEBIRD	40	13.8VDC	£50
GRANDSTAND		HAWK	40	13.8VDC	£30
GRANDSTAND		GEMINI	40	13.8VDC	£60
HARRIER	Dixons Photographic Ltd	CB 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	Telecomms, 189 London Road, North End, Portsmouth	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
KAISER	Kaiser Electronics Nevrottsstrasse 21-25, Waldorf Baden, W. Germany	UK 40	40	13.8VDC	ETBA
LADYLINE	Market Drayton, Salop	QUASAR	40	13.8VDC	£80
LAKE	Roger D, 831 Mansfield Rd, Nottingham NG5 3GF	MANXMAN 850	40	13.8VDC	£32.50
LAKE		MANXMAN 950	40	13.8VDC	£37.50
LOWE	Lowe Electronics, Astatock, Derbyshire	TX40	40	13.8VDC	£50
MAGPIE	Maggie Electronics PO Box 35, Andover, Hants SP10 2LG	AUTOSCAN 5000	40	13.8VDC	£120
MAXCOM	A.M. Telecommunications, AM House, 17 Shepherds Way	4E	40	13.8VDC	£50
MAXCOM	Fildmansworth Herts.	6E	40	13.8VDC	£48
MAXCOM		20E	40	13.8VDC	£50
MAXCOM		21E	40	13.8VDC	£50
MAXCOM		16E	40	13.8VDC	£46

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	H/I/O OUTPUT	PA FACILITY	EX. SPEAKER JACK	TX IND. LIGHT	RX IND. LIGHT	CH 9 SWITCH	MIKE POSITION	COMMENTS	
•			•	•		•	•	•	•	•	•	•	•	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 Dec '81	BINATONE
•			•	•	•	•		•	•	•	•	•		SL		BINATONE
•				•	•	•		•	•	•	•	•		FL		COLT
•				•	•	•		•	•	•	•	•		FL		COMMTRON
•				•	•	•		•	•	•	•	•		FL		COMMTRON
•						•	•	•	•	•	•	•		SL	Ultra compact performer	CYBERNET
•				•	•	•		•	•	•	•	•		FL		CYBERNET
•				•	•	•	•	•	•	•	•	•		FL		CYBERNET
•				•	•	•		•	•	•	•	•		FL	Report July '82	DNT
•				•	•	•		•	•	•	•	•		SL		FIDELITY
•			•	•	•	•		•	•	•	•	•		FL	Report March '82	FIDELITY
•			•	•	•	•		•	•	•	•	•				FIDELITY
•				•	•	•		•	•	•	•	•		SL		GRANDSTAND
•				•	•	•		•	•	•	•	•		SL		GRANDSTAND
•	•			•	•	•	•	•	•	•	•	•		SL		GRANDSTAND
•				•	•	•		•	•	•	•	•		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		KAISER
•				•	•	•		•	•	•	•	•		FL	First marine rig	LADYLINE
•				•	•	•		•	•	•	•	•		SL		LAKE
•				•	•	•		•	•	•	•	•		SL		LAKE
•				•	•	•		•	•	•	•	•		FL		LOWE
•			•	•	•	•		•	•	•	•	•		FR	New Rig	MAGPIE
•				•	•	•		•	•	•	•	•		FL	Maxon chassis	MAXCOM
•				•	•	•		•	•	•	•	•		FL		MAXCOM
•				•	•	•		•	•	•	•	•		FL		MAXCOM
•				•	•	•		•	•	•	•	•		FL		MAXCOM
•				•	•	•		•	•	•	•	•		FL		MAXCOM
•				•	•	•		•	•	•	•	•		FL		MAXCOM

considerably from CB shop to CB shop!

MOBILES

NAME	ADDRESSES	MODEL	NO. OF CHANNELS	SUPPLY VOLTAGE	RETAIL PRICE
MICROLINK	Warman-Freed Ltd, 82 Golders Gn 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		40	13.8VDC	N/A
MUSTANG	KB & Co. Ltd, 202 Cheetham Hill Rd, M/cr.	CB1000	40	13.8VDC	£49.95
MUSTANG		CB3000	40	13.8VDC	£59.95
NATO	Roger D, 831 Mansfield Rd, Nottingham NG5 3GF	40M	40	13.8VDC	£69.95
NATO		2000	40	13.8VDC	£189.95
DSCAR	S.M.C. Osborne House, Totton, Southampton	OSCAR1	40	13.8VDC	£65
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
SHOGUN	Colliers Fm, Freith, Henley-on-Thames, Oxon, RG6 6NR	SHOGUN	40	13.8VDC	£100
SIRTEL	24 Alfric Sq, Off Maxwell Rd, Woodston Ind. Est. Peterborough	SEARCHER	40	13.8VDC	£40
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
UNIDEN	Cravenmaster Ltd, 31 Madoc St, Llandudno	UNI ACE 100	40	13.8VDC	£59.95
UNIDEN		UNI ACE 200	40	13.8VDC	£79.95
VIPER	Radio 88, Barking, Essex	VIPER 88	40	13.8VDC	£29
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





SQUELCH	NB SWITCH	ANL SWITCH	MIKE GAIN	RF GAIN	TOPE 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		MICROLINK
•			•		•		•	•	•	•	•			FL		MIDLAND
•			•		•		•	•	•	•	•			FL		MIDLAND
•			•		•		•	•	•	•	•			FL		MIDLAND
•			•		•		•	•	•	•	•			FL	The talking rig	MIDLAND
•			•		•		•	•	•	•	•			FR	Report June '83	MERCURY
•			•		•		•	•	•	•	•			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
•			•		•		•	•	•	•	•			SL	Up market elegance Report June '82	SHOGUN
•			•		•		•	•	•	•	•			SL		SIRTEL
•			•		•		•	•	•	•	•			FL		STEEPLETONE
•			•		•		•	•	•	•	•			SL		TANDY
•			•		•		•	•	•	•	•			SL		TANDY
•			•		•		•	•	•	•	•			SL		TANDY
•			•		•		•	•	•	•	•			SL		TANDY
•			•		•		•	•	•	•	•			—		TANDY
•			•		•		•	•	•	•	•			SL		UNIOEN
•			•		•		•	•	•	•	•			SL	Report coming soon	UNIDEN
•			•		•		•	•	•	•	•			FL		VIPER
•			•		•		•	•	•	•	•			FL		WAGNER
•			•		•		•	•	•	•	•			FL		WAGNER
•			•		•		•	•	•	•	•			FL		WESTERN
•			•		•		•	•	•	•	•			SL	Report Oct '81	YORK
•			•		•		•	•	•	•	•			SL	Cybernet 134 chassis	YORK



BASE STATIONS



BASES

NAME	ADDRESSES	MODEL	NO. OF CHANNELS	SUPPLY VOLTAGE	RETAIL PRICE
DNT	Radiotechnics Ltd, Grove Way, Bel Royal, St Lawrence Jersey Cl.	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, Harrogate, 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
MIDLAND	Plustronix Ltd, Hampstalls Ln, Newcastle-under-Lyme, Staffs.	76-200	40	240VAC	£150
UNIDEN	Cravenmaster Ltd, 31 Madoc St, Llandudno	UNIACE 3001	40	240VAC	£129.95
WAGNER	Knight Communications Ltd, Unit 19 Britania Estate, Llangrove 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 Cl	HF 12/3	3	BATTERIES	£47.55
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	£89.95
HARVARD		10-4 CONVOY	2	BATTERY	£19.95
HARVARD		H6	2	BATTERY	£29.95
KAISER	Keiser Electronics Nevostrasse 21-25, Waldorf Berden, W. Germany	CBX40	40	BATTERY	£60
MAXCOM	A.T.M. A.M. House 9a Olds Approach, Tolpits Lane, Watford Herts.	7E	3	BATTERY	£49.95
MIDLAND	Plustronix Ltd, Hampstalls 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	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	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
•			•	•	•	•		•	•		•		FL		MIDLAND
•		•	•	•	•	•		•	•		•			Review August 83	UNIDEN
•	•		•	•	•	•		•	•				FL		WAGNER

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•														-	BEAR
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•														-	DNT
•														-	HARRIER
•					•		•		•		•			-	HARRIER
•														-	HARVARD
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•														-	HARVARD
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•														-	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	MOUNT	PRICE RANGE
AMSTRAD	Amstrad Consumer Electronics, 17 Galman Rd, London N17	C8A 1500	SS	1.6	-		Various	C
ANTENNA INC.		12510 Telecomm	SS	0.9	-	M	1/2ths	D
		Super Persuader	SS	1.5	-	M	Mag	F
		MR511	SS	1.2	-	M	Mag	G
		M710	SS	1.6	-	M	1/2ths	G
		AS M125	SS	1.14	150	M	1/2"	C
AS M128	SS	1.14	150	M	-	C		
ANTENNA SPECIALISTS	Antiference Ltd, Aylesbury, Bucks HP19 3BJ	AS M131	SS	1.14	150	M	gutter	D
		AS MR 440	SS	1.2	100	M	mag	D
		AS MT 178	SS	1.2	150	M	mag	O
		AS M510	SS	1.2	200	M	1/2"	O
		AS M2000	SS	1.5	150	M	1/2"	O
		AS 9812	SS	1.2	150	M	mag	O
		IC 86	SS	1M	-	M	mag	D
		IC 80	SS	1M	-	M	spring-based mag	D
		IC 15	SS	1	-	M	trunk	E
ANTLER	Shakespeare Performance Antennas, Batton Rd, Market Drayton, Salop	IC 20	SS	1 1/2	-	M	roof	D
		IC 30	SS	1	-	M	gutter	D
		IC 40	SS	1 1/2	-	M	mirror	D
		IC 80	SS	1 1/2	-	M	mag	D
ARCHER	Tandy Corp, Tame Way Tower, Bridge St, Walsall, W.Mid	21-904	SS	0.5	50	M	1/2" snap	D
ARMSTRONG	Stateside Trading Ltd., Audley Ave, Newport, Shropshire	SAM 10	SS	1.06	1,000	M	surface	F
		SAM 20	SS	1.06	1,000	M	surface with spring	F
		TAK 10	SS	1.06	1,000	M	boot lip	F
		TAK 20	SS	1.06	1,000	M	boot lip with spring	G
		MAG 10	SS	1.06	1,000	M	magnetic	G
		MAG 20	SS	1.06	1,000	M	magnetic	G
		8DY 20	SS	1.06	1,000	M	with spring	G
PEC 20	SS	1.06	1,000	M	side & fold over & quick disconnect	G		
AVANTI	CB Radio Centre Ltd, 337 Kenton Rd, Harrow	AV 241 (Moonraker)	SS	1.22	-	M	stud	D
		AV 241 T	SS	1.22	-	M	trunk	E
		AV 241 M	SS	1.22	-	M	mag	E
		AV 241 MM	SS	1.22	-	M	super mag	G
			SS	1.22	-	M		G
BADLAND	Badland, Roeten Ind Est, Providence St, Lyd, Stourbridge	B10	SS	1.22	-	M	mag	G
BANDIT	Bandit, Rougham Ind Est, Bury St Edmunds, Surrey	B10	SS	1.42	-	M	mag	G
		B15	SS	0.81	-	M	mag	F
		B15	SS	1.22	-	M	mag	F
		B20	SS	1.42	-	M	mirror	F
		B30	SS	1.42	-	M	drill thru	E
		B30	SS	1.22	-	M	drill thru	E
		B40	SS	1.42	-	M	various	D
		B40	SS	1.22	-	M	various	D
		B50	SS	1.42	-	M	various	D
		B50	SS	1.22	-	M	various	D
C. BRIT	C Brit Unit 3 5 East Lane, Weimley, Middx.	Stingray Whiplash	AL	1.6	500	B	pole	H
			SS	1.5	25	M	1/2"	C
CT INTERNATIONAL	CT International CTE (UK) Ltd Unit 3, Mitcham Ind Est, 85 Streamham Rd, Mitcham, Surrey	MG27	SS	0.91	-	M	mag	C
DIAL-A-MATCH		Rubber Duck	R	0.3	-	M	1/2"	C
		530 (Cherokee)	SS	0.61	-	M	-	C
		531 HBF	SS	0.61	-	M	-	F
		531 SMF	SS	0.81	-	M	-	F
		540	SS	1.22	-	M	-	E
		541 HBF	SS	1.22	-	M	-	E
		541 SMF	SS	1.22	-	M	-	D
520 (Halfbreed)	SS	1.27	-	M	-	D		

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 onto 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. Mitcham, Surrey	Falcon 27	SS	1.5	—	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	3/8ths	B
FREEMAN & PARDOW	Freeman & Pardow, Tything Rd. Arden Forest Ind Est. Alcester Warwick	The Invader The Thunderpole	AL AL	1.5 1.5	250 500	B B	pole pole	E F
CB SERVICES	97, 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	—	1.5	—	M	—	F
OCT.	Unit 1 Earlsfield Lane Ind. Estate, Grantham, Lincs.	K40 Z27	SS SS	1.4 1.45	500 200	M M	various various	G B
PANORAMA	Panorama, 73 Wedham Rd, London SW15 2LS	CB27	—	1.22	—	M	mag	B
PRIOW		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 Afric 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 IIVIIS Oscar IICM Oscar IICE Oscar IINE Oscar IISE Oscar TMCAS	SS SS SS SS SS SS SS	1.5 1.5 1.2 1.2 1.6 1.5 1	— — — — — — —	B B M M M M M	— — mag foldover base 'pull-up' foldover base 'locking-collor' foldover base trunk	F F O B C C B
SPYDER		Spyder	AL	1.5	—	B	pole	B
TAGRA	CB Radio Centre Ltd, 237 Kenton Rd, Harrow	T40	SS	1.4	500	M	various	E
THOROBRED	OCT, Unit 1, Earlsfield Lane Grantham	251 Z27 Locktune	SS SS SS	1.5 1.5 1.5	— — —	M M M	various 3/8" various	C B C
WITCHSTICK	CJM Motor Factors, Hill Farm Ave, Leavesden, Watford, Herts. 09273-73646	Witchstick homebase	AL	1.5	—	B	—	E
WTA ELECTRONICS	111 Cromer Rd, Plesson, 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	3/8"	G

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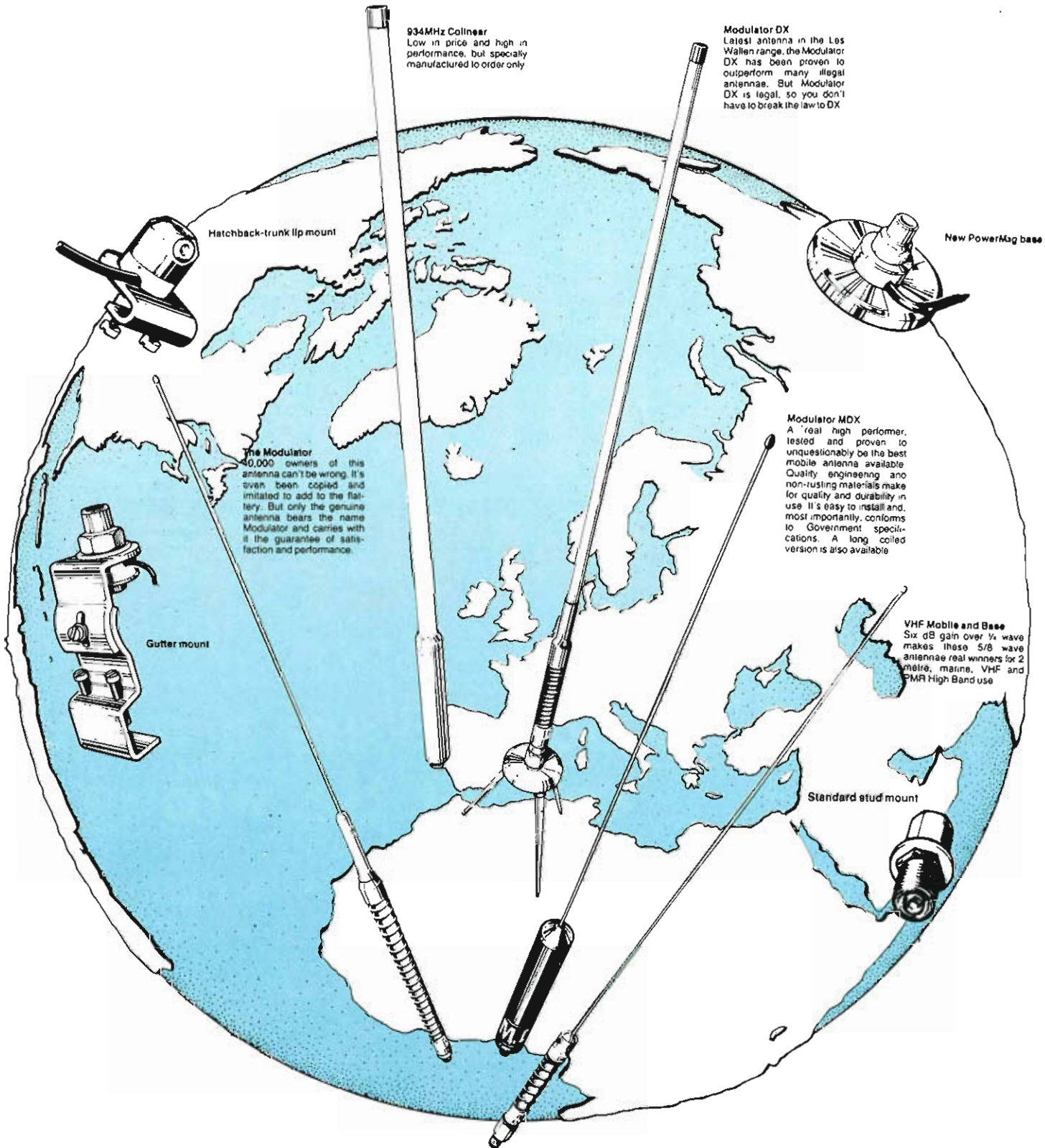
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