

CB

Citizens' Band

Britain's Leading CB Monthly

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world

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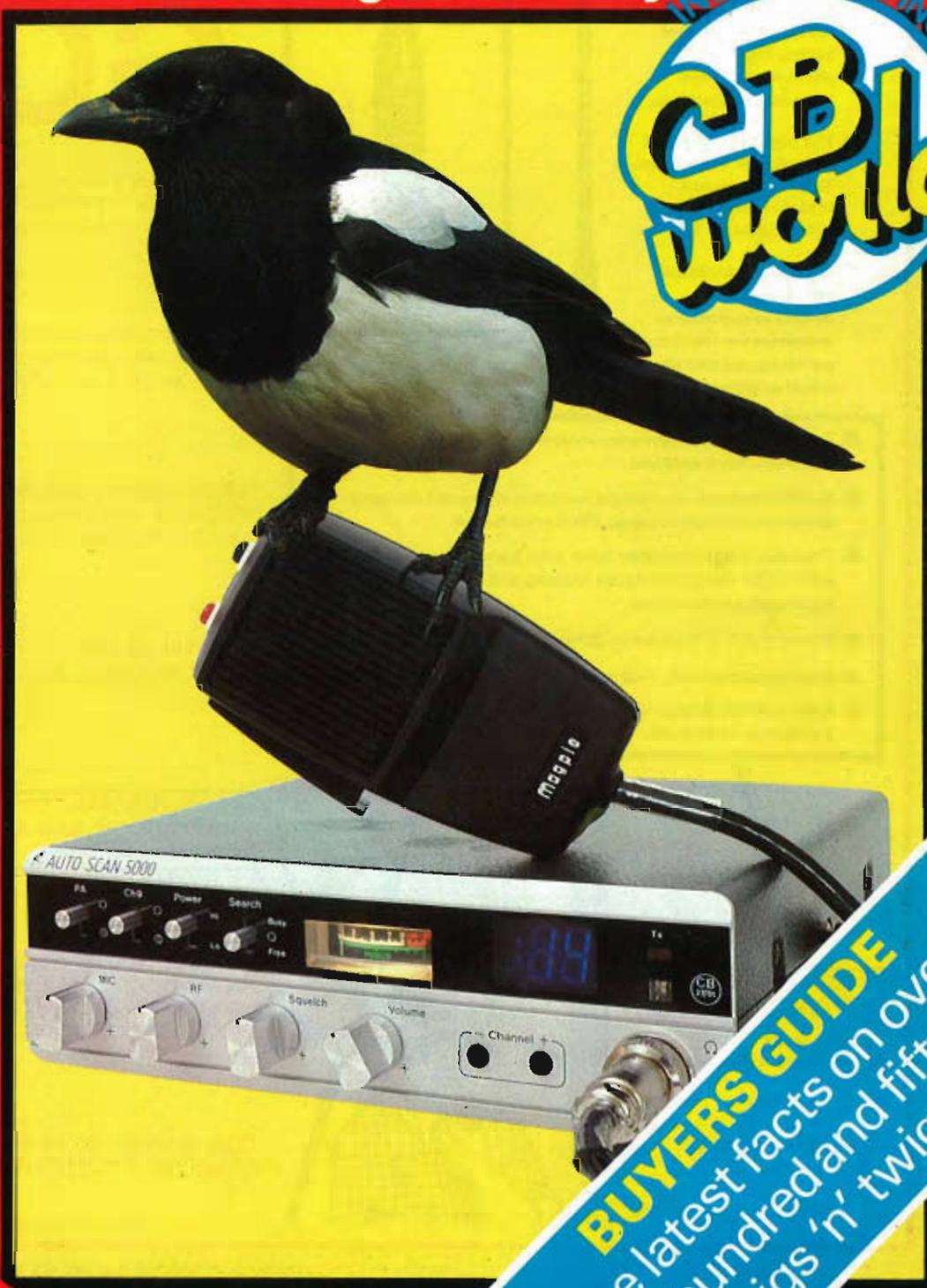
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Your questions
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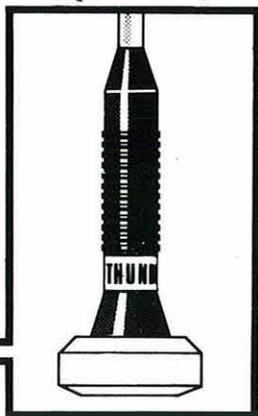


BUYERS GUIDE
The latest facts on over a
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- The Thunderpole II from the UK market leader of the fastest selling high-performance legal base station antenna.
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THE ABOVE IS WHAT CITIZENS BAND MAGAZINE, SEPTEMBER 1982, SAID ABOUT THE FANTASTIC THUNDERPOLE.

CITIZENS BAND, NOVEMBER 1982 BUYER'S GUIDE SAID "WE WERE VERY IMPRESSED WITH THE THUNDERPOLE'S PERFORMANCE AND FELT THAT AT £28.00 IS ONE OF THE BEST BUYS AROUND."

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Citizens' Band

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ABC Cover this Month

On the cover we feature the Maggie Autoscan 5000 and for a full report on the rig turn to page 18. Which reminds me . . .

An alcoholic prize was offered by the landlord of a pub, situated in a little coastal town, to any of his customers who could build a flying machine and stay airborne for one minute.

Actual Ace and Captain Pugwash, being two very thirsty chaps, immediately set about building themselves machines. They were the only two competitors to turn up on the appointed day. Actual's machine looked like a giant bumble bee and, upon launch and after a magnificent effort, he crashed 30 seconds later into the sea. Upon being rescued, he was fined for having a sea bee without a licence. The Cap'n tried next in his machine — made out of bits and pieces from an old gas cooker — and he soared up and away the clear winner. On landing he was fined for using a burner!

However, the prize was duly awarded and, although the Ace was highly commended for his effort, a case of gin was awarded to the Cap'n. Hence the saying . . . NOWT FOR THE TRYING MAN AND GIN TO THE FLIER!!!

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PRIVATE CHANNEL?

THE NEXT BEST THING

The Datong Tone Squelch System adds a whole new dimension to CB radio.

As well as being an interesting hobby CB now fulfils its promise as a useful low cost communications accessory for small businesses, farmers, families, emergency groups, etc.

By fitting a PTS-1 to each rig in your group you have the next best thing to a private channel. Any rig in your group can talk to any other exactly as if the PTS-1 were not preset but, and this is the vital benefit, no outsider can call into the group.

The result: the rigs are silent between calls and everyone can concentrate on the job in hand without interruption.



TECHNICAL

PTS-1 works by sending one of sixty four continuous tones during every transmission. At the receiver the Tone Squelch opens only if the correct tone is present. (The actual tone is automatically removed before the signal reaches the loudspeaker so the intended user never hears it). This technique offers the best possible immunity to interference—the range of the set is not reduced in any way.

Model PTS-1 comes with a connecting lead that must be wired to the rig's power supply, microphone input and loudspeaker link. Sometimes suitable connections may be accessible at an accessory Selcall socket but normally six sold red connections will need to be made inside the transceiver. Full instructions are supplied, or ask your local dealer.

Unit price: **£45.99** (including VAT)
(Note—a unit is required for each radio in the group).

LOW-COST SELCALL

(see feature in "Citizens Band", February 1983)

"Codecall" is an exclusive low cost selcall system from Datong which requires no internal connection to your rig. When monitoring just plug the unit into your rig's external speaker jack. This keeps it totally silent. But when a correctly coded call comes in "Codecall" starts bleeping loudly. You then press the "LS" button to reconnect your speaker and hear the message.

To send out a call just press the call button and hold "Codecall's" bleeper output close to the microphone.

"Codecall" automatically switches on its internal PP3 battery whenever a signal appears on the channel, therefore it is best used where channels are not too busy. In busy areas we recommend Model PTS-1.

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DIRECTION FINDER

Model DF, plus your FM CB rig, plus four magmount antennas and you have a highly effective mobile direction finding system for locating other transmitters. The readout is almost instantaneous on a circle of sixteen green LEDs. Model DF is supplied to both professionals and amateurs. Ideal for use by clubs—as reviewed by "Citizens Band", January, 1983.



MODEL DF

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Data sheets and full catalogue available free on request—send large s.a.e.

All Datong products are designed and built in the U.K. They are available direct (mail order only) or from selected dealers.

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TECTEL

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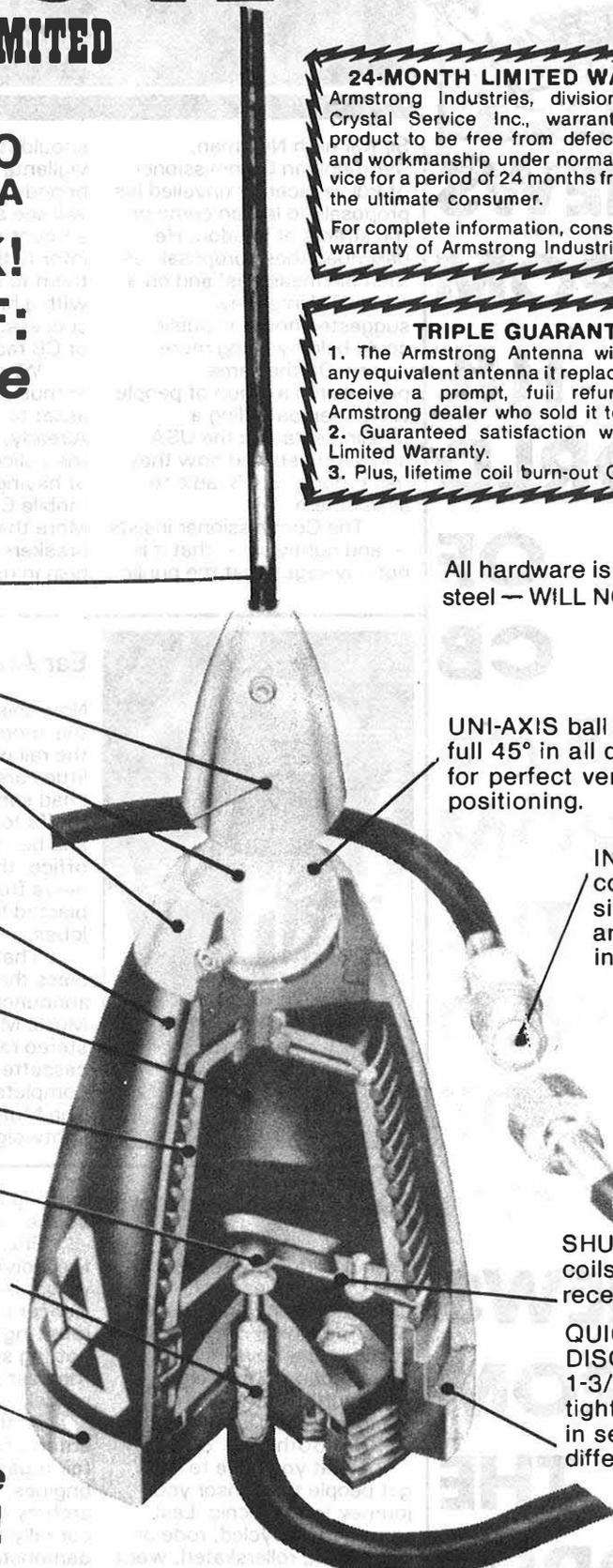
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UPDATE

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

Sir Kenneth Newman, Metropolitan Commissioner of Police recently unveiled his proposals to lessen crime on the streets of London. He described these proposals as 'first aid measures' and on a recent TV interview suggested how the public could help by being more aware. On the same programme a group of people were seen patrolling a housing estate in the USA and demonstrated how they had brought in CB radio to assist them.

The Commissioner insists — and rightly so — that it is not envisaged that the public

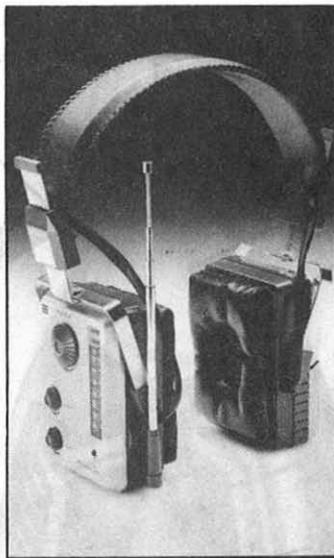
should form themselves into vigilante groups but it is hoped that the local police will see an increase in the amount of support or information that will enable them to carry out their duties with a higher level of success. He made no mention of CB radio.

When used properly CB enthusiasts can be a great asset to any community. Already, in some rural areas the police recognise the value of having a large number of mobile CBers in their area. More than once these breakers have been asked for help in using their CBs to

become part of a search unit and have done the job well. One mobile police car cannot be everywhere at once but breakers out on the road see plenty — and not just dodgy road conditions either. Why not in London? Why not anywhere for that matter.

I am certain that as CB grows up and the benefit of quick and reliable communications are seen to be beneficial in each and every community then, and only then, will it be granted the status and respect that it deserves.

Chris Adam-Smith



Ear And There

Now this is what I needed this morning. There I was, on the rail platform, with my little ears freezing off wishing I had some old-fashioned muffs to keep them warm. Lo and behold, when I get to the office, there's some great news from Shogun. It fair blasted the icicles from my lobes.

That's because Shogun, bless their hearts, have announced the arrival of the Music Muff. It's a personal stereo radio and micro-cassette player that is completely without wires. The Muff looks like a pair of lightweight headphones, but

cunningly concealed on the left ear is an FM radio complete with built-in antenna. On the right ear there's a cassette player designed to play the new stereo micro-cassettes.

Both radio and cassettes can be enjoyed in stereo and because micro-cassettes are small you can carry five in place of once ordinary cassette.

The Music Muff is already on sale. Trouble is right now there's a shortage of music on micro-cassette. It costs £69.95 and you can get more details from *Sunrise Products, Colliers Farm, Henley On Thames, Oxon RG9 6NR.* **KW**

Psst! Wanna Sponsor?

Calling all Junior Breakers. The Cancer Research Campaign is inviting you to 'Get Sponsored' their 1983 picnic at the Royal Showground, Stoneleigh, Kenilworth, Warwickshire over the Spring Bank holiday — 28th-30th May '83.

What you have to do is get people to sponsor your journey to the Picnic. Last year, people cycled, rode on horseback, rollerskated, went in a covered wagon, pushed a bed, a gigantic mock banana, and several prams, got 'delivered' to the Picnic in

mailbags and canoed or sailed up the river.

Prizes will be awarded to the individuals and teams who raise the most money for Cancer Research, invent the most ingenious method of getting sponsored, or create the best sponsored life-size model.

At the Picnic, for your entertainment, there will be fair organs and traction engines, sub-aqua and archery displays, a vintage car rally, a gyrocopter demonstration and much, much more. Last year Her Majesty the Queen attended, attracting 25,000 people to the first day.



Power Supplies

There has been some concern over recent months as to the actual grading of power supplies for CB usage. Tarren Products — manufacturers of two units for the CB market — 'Standard' Power Supply and 'High' Power Supply — say these are rated as 30va and 7va respectively. Some of the extravagant claims made about the ratings applied to power supplies worried them to such an extent that they have moved away completely from the common terminology in order not to confuse or mislead their customers and have opted for the rating quoted. The 'Standard' they say, is suitable for normal CB use and the 'High' for the person who wants a little extra.

CAS

It Never Rains . . .

Roy Finch — Rainbird Two — was the first of many breakers to let us know that the address for the **Radio Society of Great Britain** was wrong. Sorry about that but they have moved to **ALMA HOUSE, CRANBOURNE ROAD, POTTERS BAR, HERTFORDSHIRE EN6 3JN.** and, don't forget — they will require an SAE.

CAS

Once again Dave Lee Travis from Radio One will be host and Grand National hero Bob Champion and winning horse Aldaniti will be there on Sunday.

If you want to 'Get Sponsored' in aid of Cancer Research write to **Michael Heyland, Youth Action Promoter, Cancer Research Campaign, 2 Carlton House Terrace, London SW1Y 5AR.** He'll send you a sponsorship form. Alternatively you can get one from your local Appeals Secretary — their names and addresses can be found in the telephone directory under Cancer Research Campaign.

KW

Gathering Moss

Harry Moss International Ltd have announced some additions to their already extensive line of products. Included is a new base station 40 channel FM CB. The **345 Audioline** will cost £135.95 and is an attractive looking rig. Its features include: Mike and RF gain, PA and tone control. A separate socket is provided for a pair of headphones if it is to be used in a room where non-believers are present.

The new **Harry Moss 325** is a pleasant looking straight 40 channel mobile with no frills and a reasonable price tag. It is a Korean made rig and at £50.95 will face some stiff competition in the market place. The mike on this rig is tucked away around on the left hand side which won't please everybody especially our reviewer.

We hope to bring you further reports on these rigs at a later date but for now enjoy the photographs.

CAS



Pointer Point

Those ever so nice Telecomms people have just dropped us a line to tell us about the arrival of their first **CB cross pointer SWR meter.**

The 202 SWR meter has been specifically designed for 26-30 MHz and the new cross pointer display enables CBers to directly read forward power, reflected power and SWR. The meter costs £25.18 and it's available from **Telecomms, 189 London Road, North End, Portsmouth. Tel (0705) 660036.**

KW

That's The Wonder Of Woolies

Woolworths seem to be getting out of CB at least for the time being. Rigs can be purchased from your Woolworths store very cheaply at the present time. It has even been rumoured that as they are so cheap some

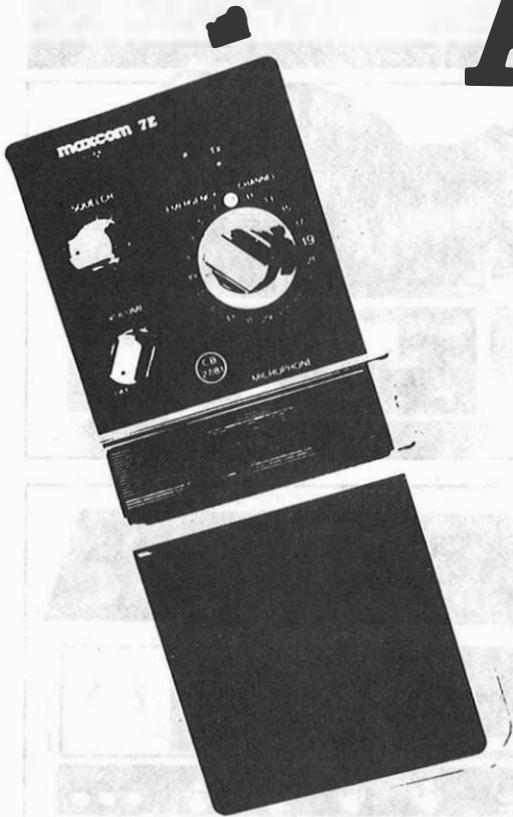
dealers have been buying them for resale in their own outlets. I think breakers should be aware that prices are unnaturally low at present and when the current importations are cleared from the shelves a more realistic price level will be reached. In the meantime 'make hay while the sun shines'

The head honcho at Woolies assures me that, although they are getting out of CB, customers need not worry about back up service. The return rate for York rigs, for instance, is extraordinarily low but should you be unlucky as a consumer you will still be protected.

CAS

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Knight Caller

Knight Communications Ltd have sent us three samples of CB radio accessories which provide the enthusiast with the capability for creating a whole new sound on channel. The **Seif RA 201**

Reverberator provides the echo effect whilst transmitting and the operators voice become clearer and more distinctive without distortion.

The 201 measures 160x90x45mm and can be used home base or mobile. The unit requires an external 12V supply and your existing mike plugs into the echo box which, with the lead provided, plugs into your rig. A single control on the front panel allows you to adjust for level required. Cost RRP £29.95

The **EA 100CB** is a similar but much smaller device that requires a PP3 9V battery as a power source. The set up is the same as the larger version and it is controlled in the same way. Cost RRP £23.95.

The third item is the **Altai Echo Power Mike**. This is slightly larger than a conventional mike yet still fits comfortably into the hand. Although there were no instructions with this unit it was fairly simple to attach to the rig. Again a PP3 9V battery is required and this is housed in the rear of the mike. You set the sliding control on the mike to minimum — the preset pot on the printed circuit at the rear is set to the required gain — and the volume is set to the required level of echo. Cost RRP £19.95

I am not certain of the value to the service of accessories of this nature but Knights inform us that they sell like hot cakes so obviously they do attract many CBers. I suppose, like most things, that when used properly and not as toys they do have their place in CB.

MJ



The Seif reverberator, Echo adaptor and Altai power mike — all available from Knight Communications Ltd.



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of the trouble you are taking and of the benefits gained. You might consider an approach to that friendly CB Club and ask if an experienced breaker would be available to have a session with children. Failing that contact REACT for the name and address of the local group and maybe they can find a team member to call around. Drop a line to REACT, NATIONAL HQ, 'Strathnaver' 142, Lutterworth Road, Nuneaton, Warwickshire CV11 6PE or ring 0203 383005.

If you drop a line to Mr Godfrey at Knight Communications Ltd. Unit 19, Britannia Estate, Leagrave Road, Luton LU3 1RJ or ring — 0582 453002 — he will sort you out a copy each of *CB Slangue Language*, *The CBers Bible — British Edition* — and *The Big Dummy's guide to CB for a very reasonable price*.

SA

Wire Antennas

Model Maker from Portadown, County Armagh has made my day and for that — even though it isn't the Star Question, he will receive a CB patch.

Q How do you go about setting up a wire antenna as suggested by Mack the Hack? Could you write an article about it as I am sure many breakers would be interested. Also have you ever reviewed any of the Cybernet range of rigs?

A You made my day Model Maker because at least you are going to be pleased with next month's issue. If all goes well, and I see no reason as to why it shouldn't, Chris Peterson will be putting the Cybernet through its paces and — wait for it — we will be featuring an article inspired by Mack's comments on wire antennas. Included will be a 'how to do it' drawing by our technical artist. There, bet you are glad that you wrote to us. Thanks.

SA

DF and Selcall

Two similar questions and one answer for both. The Man at the School House, Scunthorpe wants to know where he can find a Datong DF unit and Peter Hartly has mislaid his EMU . . .

Q My letter to EMU Systems has been returned 'gone away' and I have also been unable to trace DNT of Watford.

A Selcall units and DF equipment can be obtained from Datong. If you ring 0532 552461 — that's in Leeds — they will give you the address of a supplier. For DNT rigs we suggest you contact Radiotechnics Ltd, Grove Way, Bel Royal, St. Lawrence, Jersey CI or ring 01-235 7040.

Hi Gain Request

A question from John Garrigan of Bridgewater in Somerset — had a sniff of it many times John — has a problem on circuit diagrams.



One way to go mobile — see letter from FM Dave!

Q I have a Hi Gain V11 and desperately need a circuit diagram for it. I have been unable to trace the company — can you help?

A No, sorry I can't. Bit negative that in-it? So on the more positive side . . . We have thousands of readers John and it is quite likely that one of them can help you. Similar requests have been responded to in the past! Any breakers out there who have a copy of said diagram or know where to get one, please drop a line to John at . . . Blake Arms Hotel, Bridgewater, Somerset or give him a landline on 0278 422168 If you are passing that way John assures me you will be made welcome!

SA

Thanks to Mr Cox of Romford who contacted me regarding the January issue. Mr Cox was giving his neighbour severe TVI — he fitted a filter-cured the TVI and they have since become 'good neighbours'. Not exactly an orthodox contact but making friends with people is the big credit side of CB radio.

One last point for this month . . . we get a lot of very nice letters from breakers asking us to register their handles as was the practice of *CB World*. I regret that this is one of the items that was dropped when we incorporated the two titles. In effect a handle register gains you naught. Even if you dream up a super original handle there is nothing to

stop another breaker from adopting it. Obviously if he does and lives in the same area — it is a pretty silly thing to do and can only cause bad feeling and confusion. Original ideas for handles must, by now, be getting a bit thin on the ground and I doubt if there is any handle that isn't duplicated somewhere in the country. In the days of AM it was easier and they were much more necessary in order that your identity be concealed from the prying ears of Busby. Now it isn't so important and it is really a matter of pride. Your idea belongs to you, but it isn't copyright and a register only insured that the handle wouldn't be registered by anyone else! Once upon a time I thought I was the only Scallawag and a few days ago I heard, on the South Coast, two Dan Dare's having a right old hobnail!!!

SA



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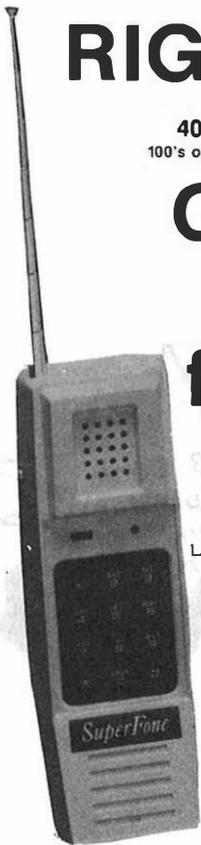
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this is what
* rig review, may.

Practical Wireless

said about the
LOWE TX40,

“ This month's CB Rig Check covers three mobile transceivers, two of which are very similar to each other and obviously come from the same factory. The third rig is one of the first from a recognised amateur source in the UK.

All three rigs give clean r.f. outputs within the limitations of the measuring equipment used, as the respective spectrum analyser pictures show. However, in terms of power output the Lowe TX-40 was giving out almost 7W of r.f. power into 50Ω — some 175 per cent over the legal limit, although we were assured that the rig had passed the relevant checks and was below the legal 4W when measured. With the attenuator in it produced twice the legal limit!

The other two rigs, a Uniac 100 and a Realistic TRC-2001, both gave 4.8W at 13V d.c. supply level. Obviously, the manufacturers hope the test house supply will be lower.

The Realistic and Uniden rigs are good examples of 'badge engineering'. Apart from the front panels and some very minor differences in p.c.b. layout, they are the same rig — even the serial numbers show remarkable similarities. Both are made in Hong Kong and are good examples of that area's radio production. Over the test period they performed capably and both proved easy to handle. The Lowe model was also well made and was a creditable performer. It is unfortunate that it was way over the top on output power.

Receiver sensitivity of the Lowe was much better than the other two rigs when measured in the lab and an RF GAIN control allows better use of this extra sensitivity.

Channel indication on all three rigs is by bright l.e.d. displays while a meter indicates "S" levels and r.f. power.

The Lowe TX 40 has the microphone socket on the front panel. Obviously Lowe's amateur experience has rubbed off on their CB rig as the mic socket is of the metal bodied screwed ring type as opposed to the more commonly fitted DIN types. The Uniac 100 also has a similar mic socket fitted but the Realistic is fitted with a latching type DIN socket. Both the latter rigs have the mic socket in the left side of the rig making the mic lead stretch a long way across the front of the rig. The Realistic's mic lead was rather on the short side to make matters worse.

In use, all three rigs gave reasonable results using a mag-mounted Avanti Moonraker antenna. Audio quality was good, both transmit and receive and the squelch controls worked well.

The handbooks supplied with each rig were adequate. Lowe's being the best, giving the operator information on installation and antenna fitting as well as full operating instructions. All three gave a full circuit diagram, useful in cases of repair being needed in the future.

HOW MUCH?

Lowe TX-40. This rig will cost you £55.00, and is available only from Lowe Electronics, Chesterfield Road, Matlock, Derby. Tel: 0629 2817, to whom we extend our thanks for the loan of the review rig.

Realistic TRC-2001. Available from Tandy retail outlets throughout the UK, price £79.95. Our thanks to Tandy Corporation, Biston Road, Wednesbury, W Midlands WS10 7JM, for the loan of the review rig.

Uniden Uniac 100. Priced £80.00, this rig is available from CQ Centre, 10 Merton Park Parade, Kingston Road, London SW19. Tel: 01-543 5150 who we thank for the loan of the review rig.

-we rest our case

TX40 £50
CARRIAGE £5



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★ TWONG

JOHN RICHARDSON

HMM! A COMPLAINT ABOUT C.B. BROADCASTS FROM A DISUSED DOWNTOWN KHAZI! WE HAVE NO RECORD OF A LICENCE BEING ISSUED TO A KHAZI! WE MUST ACT ON THIS!

CUSTOMS & EXCISE

AND SO A TRAP IS SET UP TO CATCH OUR HERO... WHO IS GETTIN' LOADED...

WHO'S A PRETTY BOY THEN? C'MON!

C'MON! C'MON!

BAWSH! IT'S A MONO-DIRECTIONAL DISH BOOSTED C.B. ANTENNA!

GAWSH! GEE! HECK!

WOW!

NEW BROWN TOWN

ATTLE TOWN

OVERLOADED YET!

ACK!

TEK THAT!

FUTTOS!

PUMF!

THIS MEANS WAR!!

HAH! TWONG SURE KNOWS HOW TO PUMF OUT PUNY MORTALS! THAT LARN 'IM NOT TO INTERRUPT TWONG DURIN' NEWCASTLE BROWN AMBROSIA FEST-UP

YOU MONO-DIRECTIONAL DISH-BOOSTED JAPANESE CRAP!

BWA!

HE'LL BLOW YOU UP!

I'LL POP IN AND SEE HOW MY HERO IS DOING!

ARGH!

YOU'RE DRUNK!

HIC!

WHATTA LOADA RUSHIBB! TWONG JUSH HAVIN' LIL' CEBELRASHUN, IS ALL!

UUP!

HE BLEWED ME UP!

HE'LL BLOW YOU UP!

HE BLEWED ME UP!

HE BLEWED ME UP!

WHATTA LOADA RUSHIBB! TWONG JUSH HAVIN' LIL' CEBELRASHUN, IS ALL!

UUP!

HE BLEWED ME UP!

HE BLEWED ME UP!

HE BLEWED ME UP!

SHAN'T GIT NO MO' TROUBLE FRUM THAT MORTAL! NO SHIR!

HUK!

PUMFED 'IM, WITTI HEH!

RA TAT TAT

CHUP CHUP CHING

NEW BROWN TOWN

ATTLE TOWN

THIS IS HER MAJESTY'S CUSTOMS AND EXCISE OFFICER! BY JUST A FRACTION OF THE RIDICULOUS POWER INVESTED IN ME, I ORDER YOU TO COME OUT WITH YOUR THINGS UP!

GO GIT 'IM FLOYD!

HAH!

TWONG NOT AFRAID! TWONG SEND C.B. MAYDAY AND GET HELP!

TWONG NEED HELP TO ESCAPE CUSTOMS MEN

TWONG'S FANS WILL COME AN' DRIVE AWAY NASTY MEN! UNTIL THEN...

MY HERO!

...TWONG RUN AWAY AN' HIDE!

PUFF DUFF

PUFF DUFF

IDIOT! THEY DIDN'T FILL IN THE CUSTOMS MEN TO SAVE YOU! THEY FILLED IN THE CUSTOMS MEN...

...FOR LETTING YOU ESCAPE!

HAH! C.B. BERS RUNNING TO ASSIST MIGHTY OL' ME!

TWONGS IN TROUBLE

WE'RE NEEDED!

HURRY

HURRY

AND PRETTY SOON THE LOYAL C.B. BERS SORT OUT THE CUSTOMS MEN, NO SWEAT!

HOT

TROMP

PUMF

ACK!

TWONG COME OUT NOW!

THERE HE IS!

SEE HOW LOYAL FANS HAVE SNUFFED OUT TWONGS ENEMIES! SEE HOW LOYAL WOMAN RUNS TO GREET TWONG!

LOONNY

NEW BROWN TOWN

ATTLE TOWN

CHUP CHUP CHUP

Rig Review



British built and British designed – Chris Peterson has long awaited the arrival of this rig . . .



MAGPIE AUTO-SCAN 5000 ONE FOUR JOY

Regular readers of Citizens' Band will recall that in our December issue we published our thoughts on the rigs we had reviewed over the preceding year. We managed to upset more than one supplier with that article, as we were less than complimentary about the standards of performance of some well known rigs! The article concluded with an outline of some of the design features we would like to see in an 'ideal' rig. Well, someone out there must be psychic! We have just received a pre-production sample of a new rig that incorporates many of the features we suggested in that article. The performance has been a revelation compared to anything we have seen before, and what's more it's **BRITISH!!!**

Magpie Electronics are a very small outfit based in Andover. They obviously don't have the marketing resources of the bigger and better known brands, but have more than made up for this by producing a rig of outstanding technical quality. For many years it has been fashionable to knock British industry as outdated and inefficient. It should be remembered that this has most certainly not been true of the electronics industry! Firms like Racal and Marconi, to name but two, have reputations in the international markets that are second to none.

It must be stressed that our sample was a pre-production rig. At the time of writing (mid-January) it was hoped that the first batch of 100 rigs would be available by mid-February, with other batches following close behind.

Knobs and Switches

At a quick glance the rig looks fairly conventional, and quite attractive. It measures 183mm wide x 58mm high x 174mm deep (plus connectors and knobs). The case construction is conventional, the case halves being formed from an attractive grey vinyl clad aluminium. The front panel gives the first indication that this rig really is designed for the UK. **The mike connector is on the right!** It is a standard four pin locking ring device. Immediately to the left of the mike connector are a pair of buttons marked '1 Channel - / +'. These replace the standard channel selector switch. Pressing the '+ ' button causes the rig to count up one channel. Keeping it depressed causes the rig to continue



to count up through all the channels. At channel 40 the counter resets to 01 and then continues. The '-' works in a similar manner, counting down. An ingenious touch is that pressing BOTH buttons automatically selects channel 14. Both buttons are repeated on the microphone, for easy operation whilst driving. Continuing from right to left across the lower front panel are four knobs for Volume/off, squelch, RF gain and mike gain.

Moving up to the top left corner and working across to the right are four switches. The first three position switch which controls the search functions. In the middle position the search function is off. Moving it up to the 'Busy' position causes the rig to scan for a busy channel. Pressing the + or - buttons will cause the rig to count through all the channels in turn until an occupied channel is encountered, where it will stop. Pressing the + or - button again will continue the search until another busy channel is encountered. The 'Free' position works in a similar manner, searching for unoccupied channels. The rig decides whether a channel is busy or free from the squelch circuit, so it is important to set the squelch control carefully beforehand.

Moving to the right again we find the meter. This has a white pointer against a black background for good readability. The lower green scale indicates power output, with the upper scale in white calibrated for received signal strength. Above S9 the scale changes to red. Next to the meter is the channel indicator. This is a blue vacuum fluorescent display. These are much brighter and more readable than LED displays, another indication of the extra thought that has gone into this rig.

If channel 9 is selected from the front panel switch, the display flashes as a subtle reminder! If the PA mode is selected then display reads 'PA'

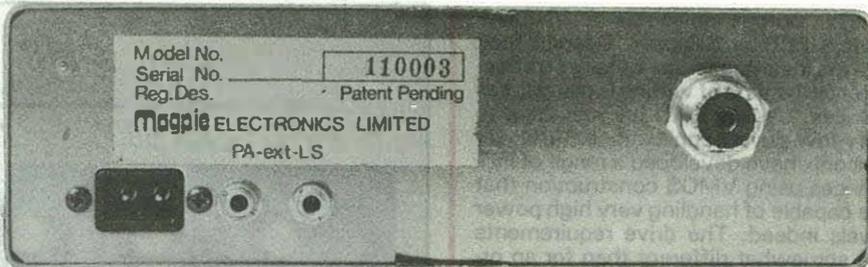
Alongside the channel display are two little windows. One contains a standard red LED Tx warning indicator, and the other a photo-transistor sensor. This automatically dims the display at night! Yet another little touch that indicates that extra degree of thought.

The rear panel contains no surprises. A standard SO-259 antenna connector is fitted plus two 3.5mm jacks for external and PA speakers. The power connector looks like a standard two-pin power connector as used by Cybernet and others.

Whilst on the subject of power supplies, the Magpie does not have an isolated chassis and is therefore unsuitable for use in positive earth vehicles. Voltage invertors are available to overcome this problem if, like me, you drive an antique!

Neat — Very Neat

Before leaving the description of the rig, it is worth mentioning the interior of the rig. Most Far-Eastern produced rigs look as if someone has shaken up a box of components, and then poured in a load of molten candle-wax! In contrast, the Magpie is a model of neatness in-



side. The main PC board is a beautifully produced double-sided fibre-glass affair with plated-through holes. This type of construction is usually only found in computer and professional equipment. It is in marked contrast to the single sided paxolin boards usually found in import equipment. A consequence of this advanced — and not cheap! — construction is that there are a minimum of stray wires floating around inside.

Technicalities

Starting with the synthesiser, instead of the usual 7137 we find a Motorola MC 1451551 ic. This is a very new device, though Motorola have a long reputation in synthesiser technology. The 145151 is a general purpose synthesiser ic and not dedicated to CB. It is unusual not only for its modest current consumption, but also by its ability to work at upto 50MHz directly. As it is not a dedicated CB device, it needs to be fed with 'n' codes to produce the correct division ratios for UK CB. These are provided by a 2716 Eprom ic. These ic's will be well known to any home computer buffs as they are the standard method of providing computer 'firmware'. Basically it is a memory device that can be readily programmed with data that will not be lost when the power is removed. They can be erased by special ultra-violet lights and reprogrammed if desired. This is a slightly more expensive approach than using a 7137, for example, but it does have advantages for the small manufacturer. It also has advantages for well-equipped and competent rig doctors! To make the rig work on the FCC channels or the European channels all that is necessary is to reprogramme or replace the Eprom! The same applies to making it work on the 10 meter amateur band, if you have a licence.

The whole synthesiser system uses a single 10.24 MHz crystal. Instead of being selected by a rotary switch, the channels are selected by a CMOS up/down counter circuit. A pair of 4029 ics form the up/down counter. The outputs of the counters drive the 2716 Eprom and a pair of 4511 display driver ics. A 4078 8 input NOR gate resets the counter at ch 40. A 4093 quad Schmitt trigger ic provides the up or down information, the remaining two gates on the ic being used to buffer the counter clock oscillator. This oscillator is built around one op-amp in a LM324 ic. A second op amp on this ic is used to detect the conditions for ch 14 reset or ch 9 over-ride.

This is quite a complex piece of circuitry, not least because the microphone uses 4 wires for 5 functions.

(ground, audio, up, down and Tx). Complex or not, it works extremely well. A truly ingenious piece of circuitry. The remaining two op-amps on the LM324 form the mike amp circuitry.

The input amp in the mike circuit is limited by a pair of diode connected back to back transistors in the feedback loop and bandwidth limited by a roll-off element. The second op-amp is configured as a unity gain second order low pass filter. A single pole passive filter links the two stages. The final effect of all this circuitry appears to be a very effective audio filter which appears to be able to provide a degree of dynamic range compression (speech processing) at maximum mike gain.

Returning to the synthesiser, the VCO circuitry has a few surprises for those used to conventional CB circuitry. Indeed the whole transmitter RF strip looks rather unusual by CB standards, but very familiar by another not unrelated standard. I can't help feeling that the designer is more than passingly familiar with model radio control systems! Some of the circuitry is almost text-book radio control transmitter circuitry, and none the worse for that! Starting with the VCO, this runs at 10.695MHz below 27MHz in the received mode and at half Tx frequency in the Tx mode. So far so good. Only one varicap diode is used serving both as VCO control element and modulator. The loop filter is slightly more sophisticated than is usual in CB rigs. The VCO is essentially a Colpitts oscillator built around the base-emitter junction of an NPN transistor. However, the collector is returned to a tuned circuit instead of the power rail. The tuned circuit is tuned to twice the fundamental frequency of the oscillator, thus allowing the oscillator to be its own doubler! The fundamental is extracted from the emitter and buffered in an untuned emitter follower before being fed off to the receiver first mixer. The twice frequency component is extracted from the collector tuned circuit and fed to the first RF amplifier.

The first RF amp is common emitter NPN transistor. The collector load is a 27MHz tuned circuit, but with a 13MHz series tuned trap in parallel to remove any residual fundamental component. Both this stage and the preceding VCO use capacitive dividers to provide impedance matching. The series combination of the capacitive divider provides the resonating capacitance for the tuned circuit. No bias is applied to the driver transistor, a diode being connected back to back with the base-emitter junction to ensure symmetrical clipping of the drive waveform. ▶

The output device is a VN66AF VMOS FET by Siliconix. Despite their many advantages no other manufacturer at the time of writing is using these devices. Usually FETs are restricted to very low power applications. However Siliconix have developed a range of FET devices using VMOS construction that are capable of handling very high power levels indeed. The drive requirements are somewhat different than for an ordinary transistor and this leads to rather unusual biasing arrangements when using these devices.

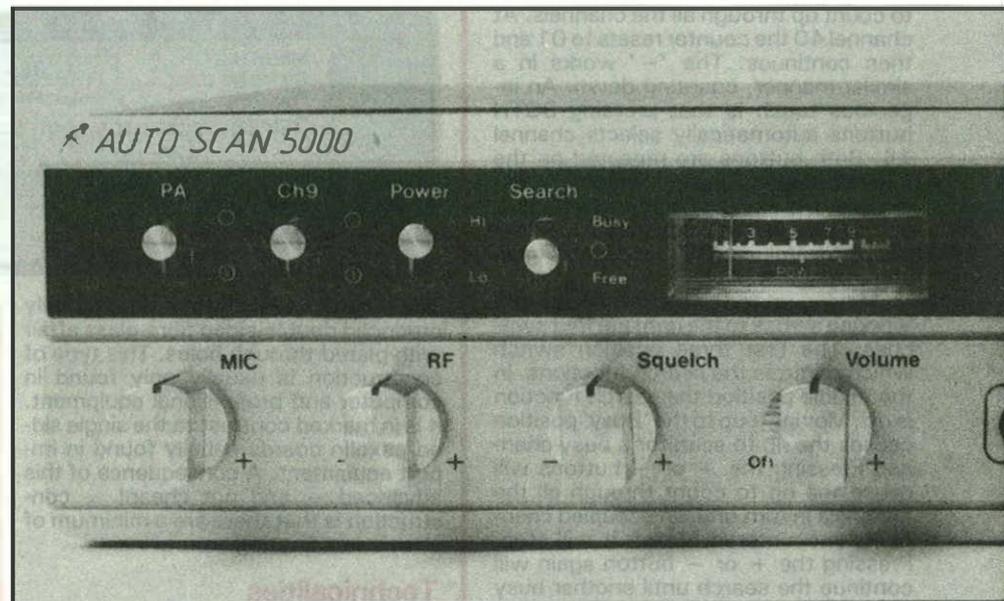
The RF drive is obtained by a capacitive divider from the preceding stage. VMOS FETs have an almost infinite input impedance, and therefore draw no power from the driver. They do however require a larger drive VOLTAGE than a conventional transistor. Although the input resistance is virtually infinite, there is a significant amount of capacitance associated with it. By driving the FET with a capacitive divider, the input capacitance of the FET appears in parallel with one element of the divider and is thus tuned out as part of the resonant circuit. The capacitive divider provides DC isolation from the preceding stage. A diode connected between the input gate of the FET and earth causes the capacitors to charge up when RF is present to a DC voltage equal to half the peak to peak drive voltage. A 4.7K resistor in parallel with the diode allows this charge to leak away when the drive is removed.

Very Different

The output matching circuitry is relatively conventional. A series tuned circuit acts as a band-pass filter, and is followed by a double PI filter. This provides both impedance matching and low-pass filtering.

Moving on to the receiver section, we again find some extremely interesting circuitry. The input RF is tapped off from the transmitter PI filter to provide a bit of low pass filtering prior to the receiver proper. Usually a low value capacitor is used to tap off the RF, and at first sight the capacitor used in the Magpie seems rather large. However, close examination reveals that this is due to the unusual nature of the input filter of the receiver. Instead of a parallel resonant circuit, the Magpie uses a T-section high-pass filter. The combination of the transmitter low-pass and receiver high-pass filters produces the necessary band-pass characteristics for the receiver. A pair of back to back diodes protects the receiver input stage as there is no switching in the transmit mode. The RF amplifier is a common emitter silicon NPN transistor stage. Contrary to popular belief, bi-polar transistors can provide superior performance to FETs in RF amplifiers. Certainly they are more consistent than FETs, however extracting really good performance from them requires more care in design than is usually found in your common or garden CB rig.

The first mixer is an MC1496 double balanced mixer ic. This is another Motorola device and one that has en-



The 5000 Autoscan as supplied by Magpie Electronics, PO Box 35, Andover, Hants SP10 2LG

joyed an excellent reputation for a number of years. Again, why one has never been used in a CB rig before is a puzzle. Perhaps it is because it is an American device rather than a Japanese one! These mixers have a very high overload margin, which must be a good thing in the UK CB climate!

Following the first mixer is a ceramic roofing filter. This is matched to the first mixer's tuned load by use of another capacitive tap. The second mixer is another MC1496. It is usually at this point that most CB rigs run into trouble. It is unusual to find less than 150KHz bandwidth of filtering applied before the second mixer, and the Magpie is no exception here. As a result of the gain of the RF amplifier and first mixer stages unwanted signals of up to + or - eight channels spacing can arrive at the second mixer. If these signals are S9 or greater in strength, the second mixer usually overloads and blocking and cross-modulation result. There are two solutions to this problem: either apply sharper filtering at the first IF stage or use a very robust second mixer. It is the latter approach that Magpie have adopted.

A tuned transformer forms the load for the second mixer. The secondary winding is diode limited before filtering in a standard Murata CFW 455HT filter. Limiting, quadrature detecting and squelch are all handled by an MC3357 ic. Normally we shudder with horror when we come across one of these ics as they seem to be at the root of most manufacturers receiver problems. In this instance all is well as Magpie don't use the mixer contained in this device. It is this mixer that usually causes the problems, and Magpie have wisely side-stepped it using the external MC1496.

Summarising then, it is an interesting and elegant design. Most of the receiver seems to have been designed with the UKs peculiarities specifically in mind. The transmitter is also an interesting departure from the norm, and the synthesiser should guarantee that the rig cannot become obsolete overnight.

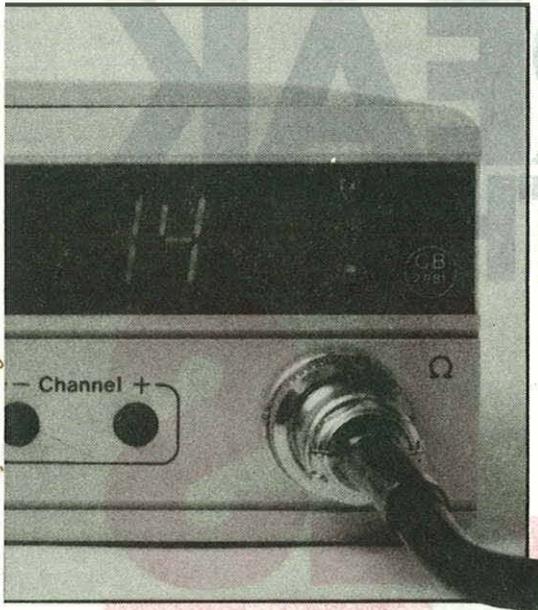
Lab Results

The Magpie was run through our standard lab test to check the performance against the claims and the HO specs. Interestingly the Magpie is the first rig we've come across that actually quotes a figure for receiver inter-modulation performance. Not only that, but the figure quoted is quite an impressive one!

Most rigs quote a figure for adjacent channel rejection. Some quote a figure for desensing in the presence of an adjacent channel signal of given strength. However, these figures are meaningless as a measure of a rig's immunity to 'bleed-over' and that is why we have never included them in our tests. The only meaningful measure in this case is a two-tone intermodulation test. Most manufacturers seem remarkably loath to quote figures for this test, and unfortunately my humble lab doesn't run to two synthesised signal generators! Two such generators are necessary to perform this test.

Moving on to our own tests, at 13.8 volts supply voltage the power output was measured as 3.6 watts. The 10 dB attenuator reduced this by exactly 10 dB. The channel frequencies were all within 30 Hz of nominal, an excellent result. Not quite so good were the harmonic results. The spectrum analyzer revealed a number of harmonics out of spec. Most were around -70 dB, but one or two were only -65 dB. The HO specs require all to be -72 dB or better, and some to be -79dB. However it should be remembered that this was a *pre-production model*. Certainly the circuitry used should be capable of meeting the spec easily. In view of the slightly low power output of our rig, I suspect that a slight re-alignment of the transmitter RF strip was needed. A pity about this as otherwise the rig behaved impeccably throughout the test period.

Peak deviation from the mike unit was measured as $\pm 1.48\text{KHz}$ (spec $\pm 1.5\text{KHz}$) and when driven into overload by our signal generator a maximum of $\pm 1.65\text{KHz}$ was recorded (spec $\pm 2.5\text{KHz}$). These are highly satisfactory



results. The limiting, when it occurred was soft in nature and had the effect of producing a slight amount of compression — speech processing — when the mike gain was fully advanced.

Moving over to the receiver, at maximum RF gain the sensitivity was measured as 0.3 uV PD and 10 dB S/N. S9 corresponded to a signal level of 60 uV, and at maximum squelch our generator could not provide enough level to open it! At minimum RF gain the sensitivity reduced to 22uV, and S9 corresponded to 2.25mV. This indicates that the RF gain had a range of around 30 dB.

The receiver sensitivity is extremely good. Normally we are a little apprehensive when we find such a sensitive receiver as it often indicates a propensity to blocking and cross-modulation. In this case, no such worries arise as the rig has been specifically designed to avoid such problems areas. The squelch and RF gain controls have sensible working ranges and should prove non-critical of adjustment in normal use.

On the Air

The rig was used for a number of weeks in and around West London, both as mobile and Home-Based installations. Having the mike connector on the right side certainly made a big difference when mobile. The minor controls are also arranged so that the most important are nearest the driver. This must be one of the most 'fumble-free' rigs we've ever tested. The hands seem to find the controls quite naturally without having to look.

The push button channel change might seem weird to someone who has never used one. Indeed some of the 'one-handers' we've tested haven't been the simplest devices to find a particular channel on. The Magpie is truly excellent in this respect. The count speed and delay are perfectly timed, and the ability to reselect ch 14 by pressing both buttons together makes channel selection child's play. Add to this the

scanner facility, and once you've used one of these rigs you'll never want to use anything else again! It would have been nice to be able to preset the default channel to say 19 or indeed anything else so that mobiles didn't always reset to 14. This could possibly have been done on an internal preset switch, as it wouldn't be altered very often. It would have been merely the icing on the cake however, as finding 19 from 14 is a very simple matter once you're used to it.

The blue channel display was excellent, remaining perfectly visible even in direct sunlight. The automatic dimmer worked a treat. It may seem a bit of a gimmick at first, but the display is much brighter than a LED type, and could be a bit dazzling at night were it not for the dimmer. Watching it cope with the Hanger Lane underpass on the A40 is better entertainment than breakfast TV!

The transmitted audio quality was excellent. Crystal clear and with real punch to it, it makes any sort of power or processor mike totally unnecessary. Just as well really, as wiring up a non-standard mike could be a problem with this rig. Mind you, anyone wanting to add any sort of processing to this rig would need his ears testing! There is nothing that you could possibly add to it that would not cause a deterioration in the transmitted audio signal. **Please don't do it!**

The received audio was good, but a little harsher than say a Cybernet rig. The exceptionally large internal speaker made an external unit largely unnecessary. Perhaps the most disappointing aspect of the receiver was the squelch. Not that it is particularly bad, or anything like that, but because it is merely average whilst everything else is terrific. I am unconvinced by the combination of level and noise action, and suspect that it would have been better had it been left as purely a noise squelch. The squelch works well enough, with a modicum of hysteresis. It does get fooled by two or more signals on channel at once, a combination that, as in most rigs, produces nine pounds of painful noise! Noise squelches seem to cope with this sort of abuse better than level or combined types.

At no time during the test was there the slightest evidence of swamping, blocking, cross-modulation, bleed-over or whatever you may like to call it! When you consider that within a 200 yard radius of my home 20 there are two Silver Rods, a Sigma 11 and a GP 27, that is no mean achievement! The only other rig that has approached this level of performance was the supertuned DNT M40.

All in all, we have to say that this is the best rig we have tested to date. You may wonder what the snag is, after all there always seems to be one! Well it could be the price, which at £119.00 certainly isn't cheap. Nor is it likely to come down like so many others. However, it does include 12 months guarantee on parts and labour, and any customer may return the rig if dissatisfied in any way for a full money refund (within 7 days).

RIG REVIEW DATA PANEL

Model AUTOSCAN 5000CB
Distributor MAGPIE ELECTRONICS
Typical Price £119.

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

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

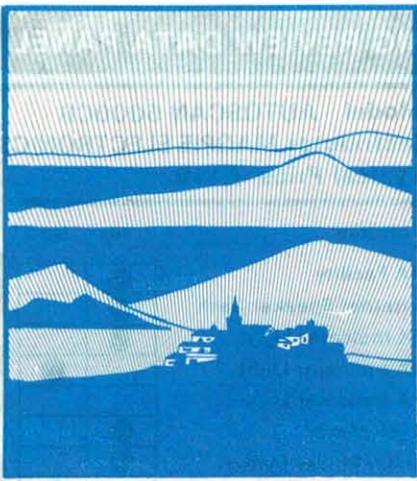
Specifications

Modes Of Operation	FM Only
No. Of Channels	40
Weight	—
Dimensions	183x58x174mm
Supply Voltage	13.8V
RF Output Power	3.6Watts*
Frequency Stability	Good
Swamping	Excellent
Sensitivity (RX)	Excellent
Spurious Emissions	See text

CB VERDICT

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

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.



Getting a copy in the countryside can be something of a contrast to talking in town. CB also has some original uses out there in the Great Beyond. Our roving reporter files his latest findings.

A BREAK IN THE HILLS



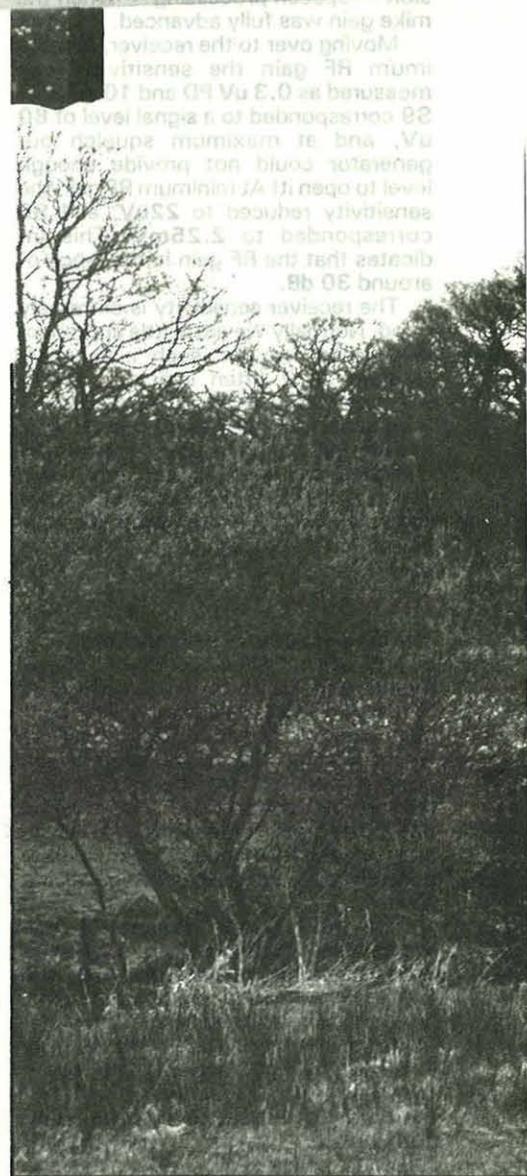
The hills were alive with the sound of hissing skip. Unfamiliar accents bombarded my Harrier for a copy on the one four. Cautiously I responded to a nine pound signal. I know that I would need to be receiving some clean modulation if the ratchet was to make more sense to me than the chat I had with a local native over a pint at lunchtime! I need not have worried. The first breaker that I copied was from Dagenham and hoping, like me, to get snowed in for a few weeks. You can get snowed in enjoyably if you are warm, well fed and lucky! (Devon has some rare advantages in winter.)

My second copy was from a breaker who had driven down from the Wolverhampton 'twenty'. He had only just arrived and was a little worried that he wouldn't be able to understand the natives. Listening to his quick chatter I felt that those sentiments would probably be shared by the Devonians!

North of Exeter it seemed all hills and milk lorries, one blocking out the incoming signals and the other blocking the narrow roads. The bends, twists and turns of the high-banked narrow lanes have to be negotiated to be believed — no one-handed driving here — and car-savaging dogs who resent their farmyards being passed are a sure deterrent to getting out of your vehicle to admire the scenery.

A little further West on the edge of Dartmoor a clear soft male voice, rich in local accent, begged for a copy; "Come on, there must be a breaker somewhere out there in God's Paradise." I hit the microphone and went over the crest of a one-in-five hill and immediately lost the signal.

Returning to my farmhouse base hosted by *Albatross* and *The Ancient Mariner* who, although not breakers themselves had, since my arrival,



Hand Book Instructions

Mounting Bracket

Channel Indicator Readability

Quality Of Control Switches

Control Construction

Dimensions Location

Specifications

FM Only
40
No. Of Channels
Weight
Dimensions
Supply Voltage
RF Output Power
Frequency Stability
Swamping
Sealability (dB)
Production Reliability

CB VERDICT

Range
Clarity of TX
Clarity of RX
Ease Of Control
Ease Of Installation
Performance

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.

shown a great interest in the crackles, hisses and general goings on. With more than a little argument as to which of them was the *Albatross* they kept one socially concerned eye on the possible use of CB in such an isolated community as theirs.

High Places

Unfortunately, as so often must be the case, their particular village is set in a deep valley surrounded by high red ploughed West Country hills and although CB would be useful for copies in the valley once over the hills the signal was badly dented. In times of peril such as snow and blizzard conditions, I rather suspect that the surrounding high ground would not exactly be crawling with eskimos with 'ears on'.

And yet those high places do have their advantages. I found several small groups of breakers parked up on the hills overlooking the distant sea busily making clean and fairly long distance copies. Good spots also — when the conditions are right — for that other super fun pastime of DXing. Perhaps they just enjoy putting pen to paper more there than in other parts of the country but it may be significant that most of the letters received concerning DX copies do come from that part of the world. Certainly the first report of a long distance break on the 934 MHz came from the West Country.

Trouble Shooting

Later that day I experimented with two forty channel 'hand-helds', one

over and under twelve bore shotgun and a flock of very safety-conscious wood-pigeons. Weak batteries probably didn't help the poor results and, walking or mobile, those hills stayed doggedly between myself and *Dandelion* my volunteer pigeon spotter. Seems to me that those hills are more suited to Red Indian smoke signals than CB radio.

So much for hand-helds, hills and woodpigeons! However, rats are a different proposition. Clearing out the local farmers massive barn structure of rats CB did come in handy. A pair of Maxcom Speak Easy's in the VOX mode proved an ideal accessory to the rifle. The dog did most of the work and didn't reckon too much on the sharp crack that — more often than not — did him out of his prey. A young man called Stoner and I kept in constant communication and thus — in those sometimes confined and half lit spaces — we all three emerged dusty and dirty but without any leaks to speak of!

Antenna Thief

Driving into Tiverton the following day with the sole purpose of purchasing a set of Ni-Cads and charger, I parked in the market car park, dropped my ten pence in the 'pay and stay' machine and went searching. No luck! Driving back from that place — which I no longer consider to be a pretty little market town but more like Fagin's Kitchen — I wondered why the airwaves were so very quiet.

"Won't get much without a twig will you?" questioned the *Ancient Mariner*, adopting a little of the jargon picked up in conversation.

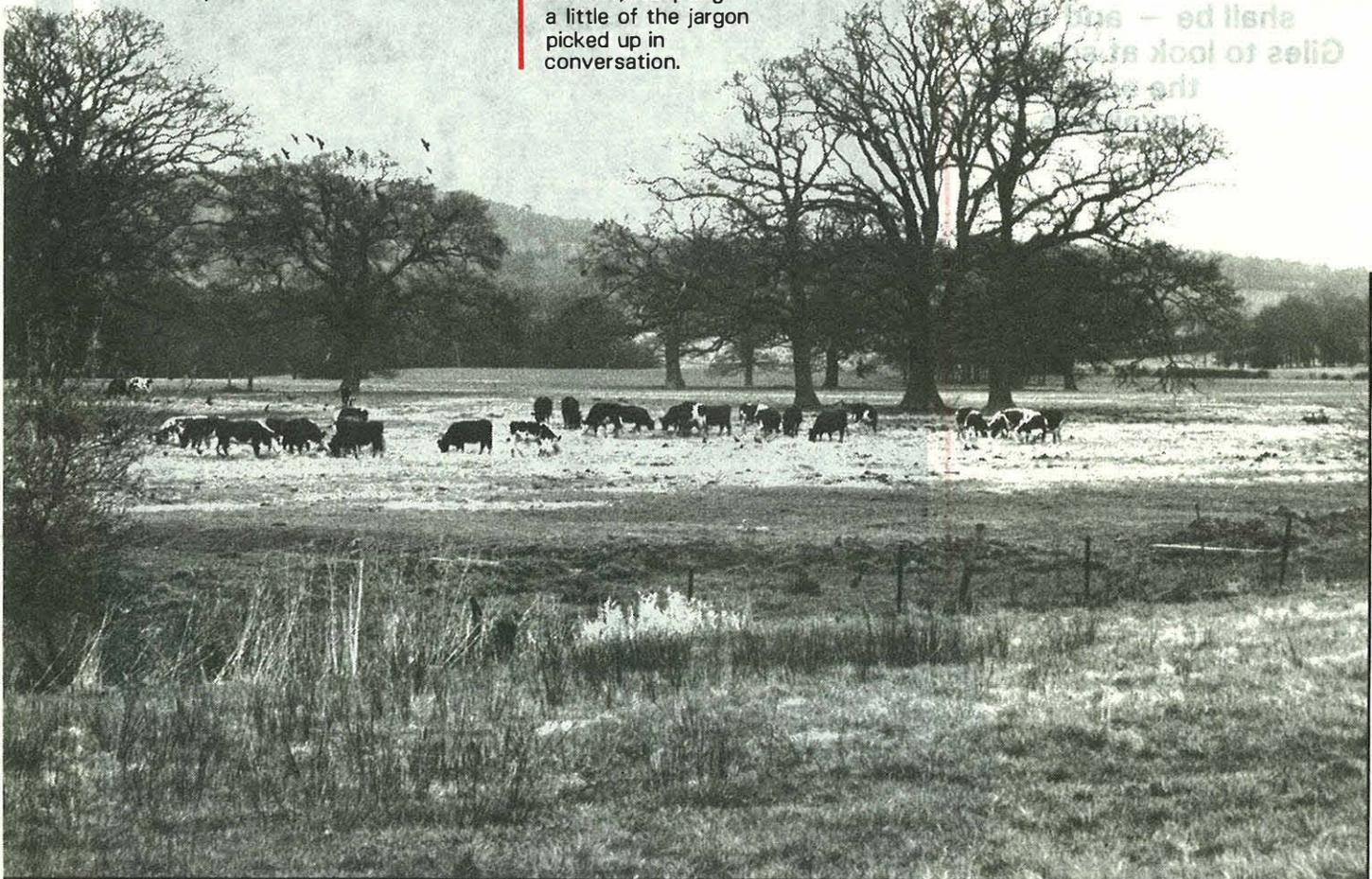
He was right of course. While sampling the delights of the electrical shops of Tiverton, some ten-one turkey had swiped my 'Dial-A-Match'. I swore violently, sacked the dog for not barking and headed out for a tiny CB shop, part of a small garage workshop, that I had passed earlier that day in Crediton.

The people there couldn't have been more sympathetic or helpful. "Lot of that goes on in this area" I was told comfortably. *Peppermint* sorted me out a *Halfbreed*, *Freewheelers* screwed it into a snap release with a bayonet fitting — so that I shouldn't have to leave it on the car while square wheeled — and *Charlie Brown* 'swore' it in for me. They gave me a plug for their new CB club, the *Freewheelers*, I gave them a plug for *Citizens' Band* and I was back on channel again. Meeting warm, friendly breakers like those enthusiasts took a little of the sting out of the feeling I had for the thief who had ripped me off. But I haven't finished with him yet. . . .

Now, I know a one-legged bending man in Sussex whose lone black beady eye when working at capacity could chill a witch. Over a pint the other night I told him of my sad and sorrowful experience in Tiverton and, after a jar or two or three he agreed to put a curse on that crawling Wally that swiped my 'Dial-A-Match'. It fair scared me to hear him at work!

So, Tiverton-Wally-Antenna-Swiper, hold on to your vitals 'cos the *Hex Man* cometh!! That goes for any breaker buying a hot twig in that twenty 'cos the curse goes with it. . . !!

CB



Equipment Review



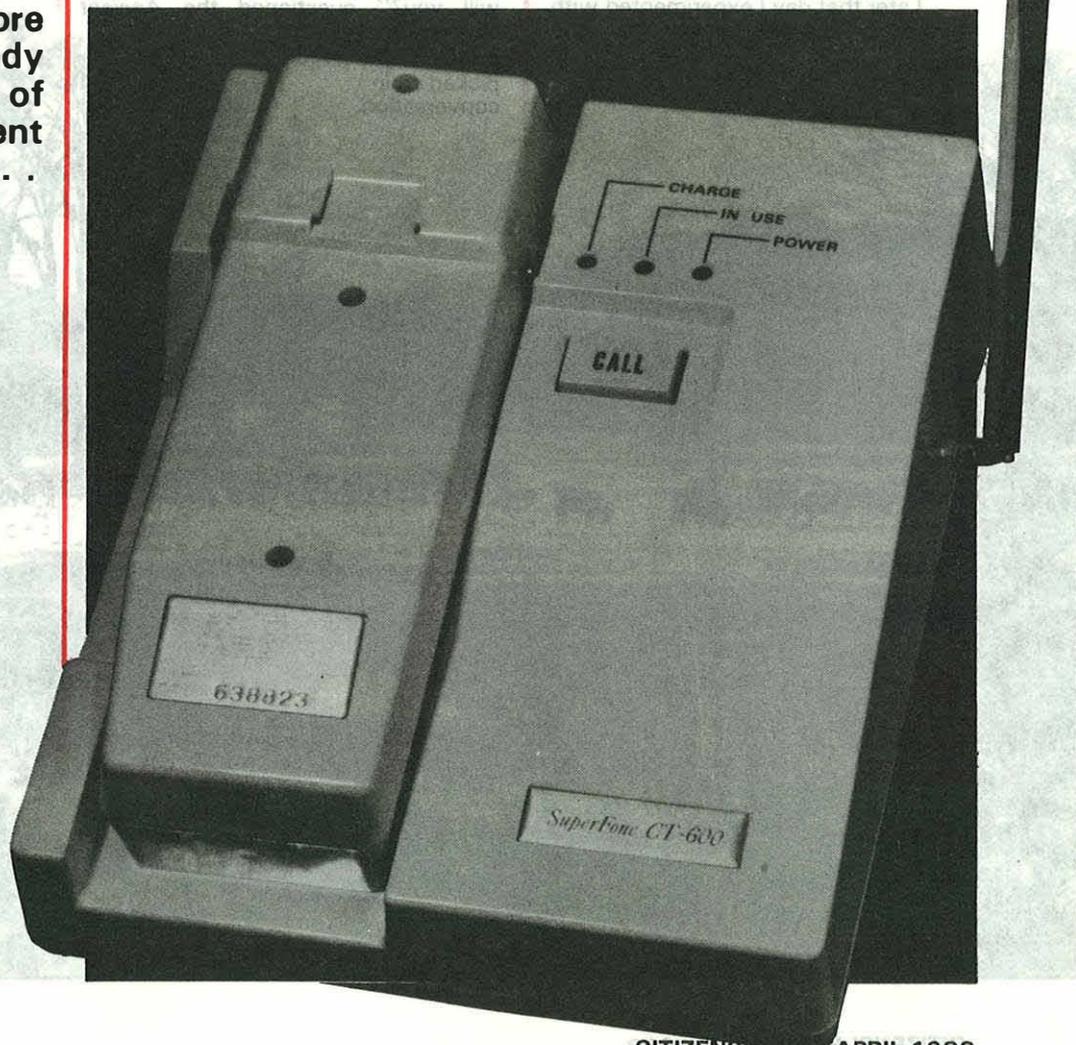
Like CB, cordless phones are here to stay and, like CB they are having more than their fair share of difficulties in becoming legalised. We asked Sara Pearson to speak to an expert and take a look at how it was, is and ever more shall be – and Andy Giles to look at some of the equipment available . . .

The Cordless Crusade

The saga of cordless phones is an epic in the same class as the struggle for recognition experienced by the pioneers of CB Radio in this country. Wooing the Home Office into granting an early issue of legal airwaves for cordless phones has also turned into the same sort of slugging match which CB had to contend with.

Having said that, the British battle for independent telephone equipment has progressed faster and further than would have seemed possible when,

even three years ago, the Telecommunications Bill had not even had its first reading. This progress can be measured fairly accurately against that in the States where it has taken a good fifteen years to reach a position where a choice of varied independent telephones and telephone attachments are readily available. Their liberalisation, of course, has already stretched to the installation of lines which is when the next really significant development will have its effect in this country.



Cordless telephones do everything that ordinary telephones do and a good deal more, because they can be taken everywhere. Operating within a given range of the base unit they provide the freedom to remain in direct communication at all times through a main-line British Telecom connection. This facility has unlimited scope not only for private use in the garden and garage but for all aspects of industry, notably construction sites, warehouses, production lines etc.

Most of the designs for cordless phones are aesthetically pleasing and neat. Inevitably technological advances march towards smaller and even more unobtrusive handsets. Arguably the most compact one on the market at present is remarkably similar to a cigarette packet, and handily fits into a pocket, handbag or briefcase. The handsets on cordless phones have telescopic antennae which do not have to be raised to receive a call signal. Powered by rechargeable nickel cadmium batteries, most of the handsets have, as standard, on/off switches, push-button dialling, automatic redial and volume control.

Security

One of the most crucial developments in cordless phones has been the inclusion of a security device into the design concept. It was the sort of technological improvement which presented itself once it had bred its own problems. Previously, if there were to cordless phone users within a limited range, it was quite probable that one handset when dialled could be picking up the line from another base unit. Such a facility certainly had potential in the wrong hands! So the different companies set to work and very soon each produced their own version of a chip which could be added to the mechanism. This allowed for the user to feed into his handset his own private code which would activate the base unit. Such an innovation also had the added advantage of containing the use of the phone to a selected number of users — without the code only incoming calls could be taken.

Desire and Need

When the liberalisation of Telecommunications passed through Parliament in the latter part of 1981, it was inevitable that the interest and desirability for cordless phones would escalate. The ultimate in independent mobile communications, early cordless phones operated on a fairly limited range. Now, technological advances have meant that it is possible to have high quality reception and transmission up to 20 miles away from the base unit. In real terms this means it is possible to be miles away from the base unit, yet still able to connect with any phone number in the world.

Currently the majority of cordless phones operate on 49 and 1.7 MHz. The imminent approval of several makes of cordless phones scheduled for later this year carries with it legislation on official wave-bands. These are being

minimally shifted from those already used by existing cordless owners, to 47 and 1.6 MHz — which will of course cause maximum disruption for cordless manufacturers.

As the machinations of bureaucracy slowly grind towards the historic day in 1983 when it all becomes legal, petty examples of last-minute harassment keep coming to light. Even this week, a well-known playwright was given the ultimatum of disconnecting his cordless phone within three days or else!

From the date the Bill became Law in November 1981, it was exactly a year before there was any discernible progress for cordless phones. Applications for specification approval were invited for submission by the last day of October 1982. Approximately nineteen serious applications were made and the waiting at last seemed to be marginally more positive. The next important milestone is scheduled for the early part of 1983, when the Department of Industry is expected to announce that between six or eight specifications have been accepted for testing purposes.

These companies will inevitably include such industry giants as Plessey and GEC along with representatives from the fledgling companies who, by their very nature, will bring with them all the innovative technology and design skills that will be required if the maximum potential of the market is to be exploited to the full.

We will report the outcome of this next announcement in a future issue of this magazine and, following this announcement, the prototypes submitted for testing will have to wait until June at the earliest before indications of success or otherwise will be known. From this timing it can be reckoned that it will take until this time next year before legal cordless phones will be widely available in the shops.

The legalisation of cordless phones opens up even more possibilities than have really been explored. In particular, the in-car potential.

In Car Use

With the waiting-list for BT carphones growing longer each week and a delay of at least several years reliably predicted for those who sign on, it is therefore not surprising that alternatives are sought and this is where the potential for cordless users comes into its own. Research has shown that the greatest requirement for a carphone is within a radius of ten miles of the office — well within the range available from today's phones. Imagine the reduction in stress level if it were possible to ring and explain that traffic was preventing punctual arrival at an appointment. Indeed, think of the effect it would have in reducing traffic accidents!

Britain's leading telephone retailer, Nicholas Pearce, who has kindly supplied the three pieces of equipment for this feature, has a chain of five independent telephone shops in London all called The Telephone Box. He opened his first shop at 339 Fulham Road in August 1980, six months before the Telecom-



Super Fone CT650 — a well designed unit

munications Bill was first debated by Parliament. Since then he has run the full gamut of problems associated with the rapid developments which have taken place, and affected his business. In fact few others have had the same experiences as so many businesses, both wholesalers and retailers, have failed during this crucial probationary three year period.

Give 'Em What They Want

It has been Nicholas Pearce's aim, throughout the time he has been in business, to offer the sort of equipment his customers have wanted. Until the last few months this has been almost totally unapproved equipment as the choice in approved attachments was limited and mostly restricted to answering machines which have been liberalised for several years now. However, as the public knowledge of the impending liberalisation Bill increased, so did the level of sophistication demanded from telephones. To meet this demand he felt obliged to offer the equipment available on the world markets at the risk of intimidation. As a result of his strong stand right from the start, he has not in fact encountered any serious restrictions. It was, probably, astutely recognised that any publicity would be bound to attract sympathetic public attention.

The cordless phone market has been of particular interest to the Telephone Box and all the branches have championed the cause of early approval so as to tap perhaps the most exciting aspect of the telecommunications business.

On cordless phones Nicholas Pearce says: *"They already account for 30 percent of sales in my shops and I have no hesitation in predicting a substantial increase on this once the approvals come through. Generally we are not even within sight of the ultimate potential and I believe cordless phones gaining approval will dramatically escalate the market. The liberalisation will have a significant effect, for the simple reason that, whereas people would attach unapproved equipment to the British Telecom lines with little concern, they are more reticent when it comes to contravening Home Office Regulations."*

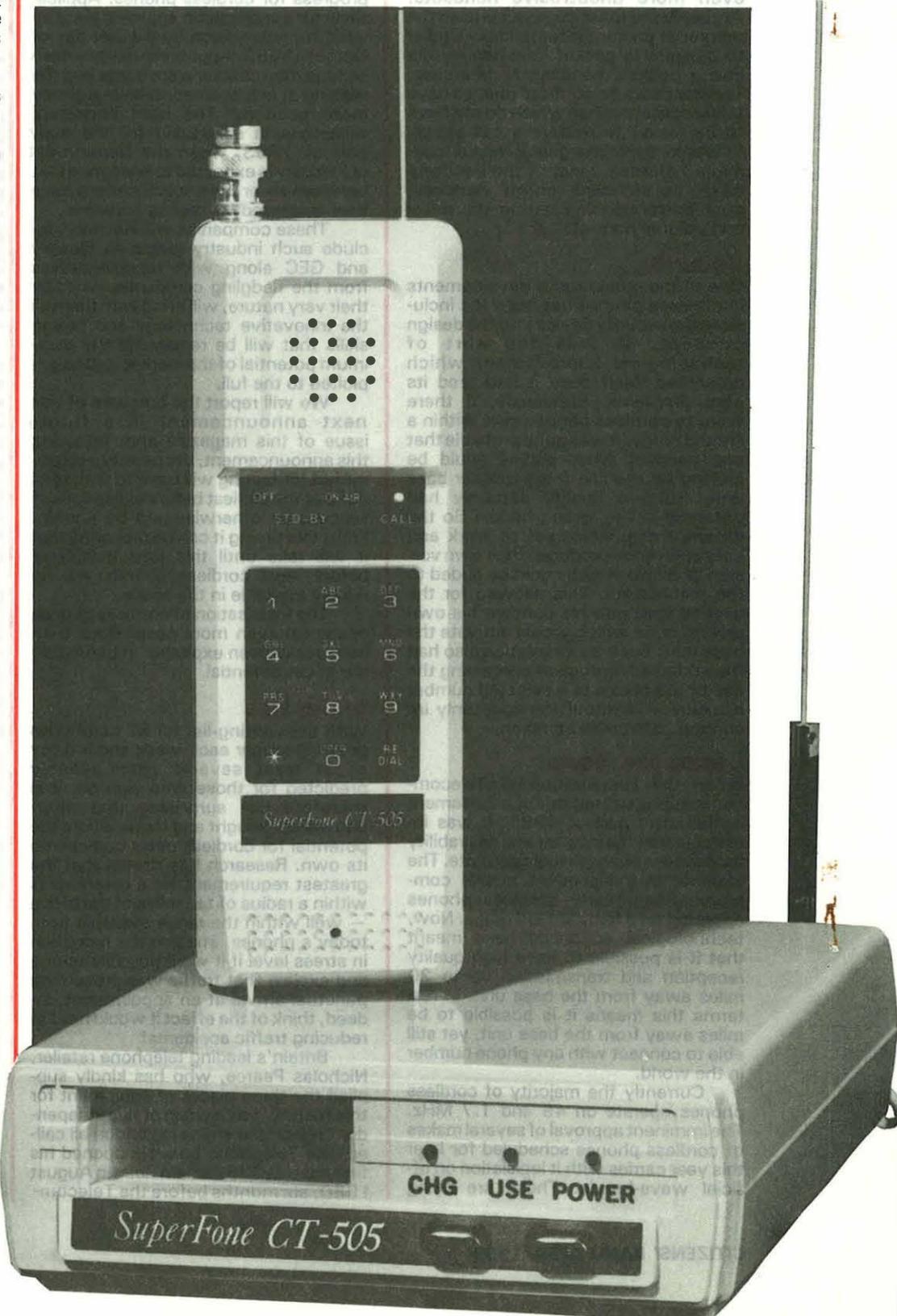
We would like to point out to potential users that, at present, use of cordless phones is prohibited and it is not our intention to encourage people in their usage.

Super Fone CT-600

This is a fairly standard radio extension telephone. It consists of a mains powered base unit that connects to the telephone junction box and to the mains and a separate hand-held walkie-talkie type remote unit that can be carried around. The base unit is compact and neatly styled and has its own built-in telescopic antenna. It has three indicator lamps, one to show that the mains power is turned on, one to show that the battery charger is recharging

the batteries in the hand-held and another to show that the unit is in use. The latter feature is very useful because it warns people not to try and use the telephone while a call is in progress. The base transmits to the remote on approximately 1.6 MHz and the remote transmits back on a frequency in the 49 MHz band. This permits full duplex operation — ie. it can be used just like a normal telephone and both people can speak at once. The hand-held unit is powered by four 1.2V rechargeable batteries that are automatically recharged every time the remote is placed in the receptacle in the base unit. There is an indicator lamp to show when the bat-

teries are running low. When set to STAND-BY it uses very little current (approx. 8 mA) and in this mode it will ring whenever the base station receives an incoming call. It can then be used just like a normal telephone. It also has a built-in telescopic antenna and this should be fully extended for maximum range, which can be as much as 300 feet under ideal conditions. The ringer in the remote unit can also be activated by pressing the CALL button on the base unit and it can then be used as an intercom. The remote can also be used to initiate outgoing calls. It has a calculator style keypad that is used to 'dial' the number and it has a re-dial facility that



allows the last number that was dialled to be called again at the touch of a single button – very useful when trying to get through to an engaged number. This is a neat little unit that appears to be good value at £115.

CORDLESS PHONE REVIEW DATA PANEL

Model CT 600
Distributor Telephone Box
Typical Price £115

Features	Yes	No
Rechargeable Batteries	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IN-USE Lamp	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Intercom Facility	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Auto Redial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Privacy Button	<input type="checkbox"/>	<input checked="" type="checkbox"/>
External Antenna Facility	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Security Code	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hand Free Operation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Range	300 ft	

FREQUENCIES

49 MHz
 1.7 MHz

CT-650

The Superfone CT-650 is a very compact and extremely well designed unit that has several unusual features. The base unit plugs into the mains and connects to the telephone line and has an indicator light to show that the power has been turned on. There is also a light to show that the handset's batteries are being replaced. Another light indicates that the unit is in use and another one comes on whenever the security feature is activated. This places the handset in the answer only mode and prevents it from being used to dial out. Another light comes on when the unit is being used as an intercom – again, the CALL button can be used to activate the ringer in the handset. Yet another lamp lights when the set is being used as a 'hands-free' telephone. It has a built-in speaker and volume control for this purpose. One of the nicest features of this unit is the CODE SWITCH. This allows the user to preset a code number in the base unit and the handset so that other people with cordless telephones can't hook into this base unit and make free telephone calls. This aspect of cordless telephones has proved to be a problem in other countries where they are more numerous.

The handset is very small and also has some nice features. It has a built-in telescopic antenna, as has the base unit, and it has a pushbutton keypad for dialling out. It also has an automatic re-dial button. There is a small lamp to show when its four 1.2V batteries need recharging. This handset has a CALL button similar to the one on the base unit and this activates a tone in the base so

that it can initiate an intercom call. There is also a PRIVACY button that turns off the microphone in the handset while a call is being held so that the person on the other end can't hear what is being said. An electronic version of the traditional hand over the mouthpiece.

The base station transmits on 1.6 MHz and the handset transmits on 49 MHz and the range can be up to 700 feet under ideal conditions. This set is definitely an improvement over the basic model and reasonably priced at £199.

CORDLESS PHONE REVIEW DATA PANEL

Model CT 650
Distributor Telephone Box
Typical Price £199

Features	Yes	No
Rechargeable Batteries	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IN-USE Lamp	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Intercom Facility	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Auto Redial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Privacy Button	<input checked="" type="checkbox"/>	<input type="checkbox"/>
External Antenna Facility	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Security Code	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hand Free Operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Range	700 ft	

FREQUENCIES

49 MHz
 1.7 MHz

CT-505

The CT-505 is a top model in the Superfone range. It does not have all of the facilities of the CT-650 but it has a far greater range. The base station transmits on 49 MHz and the handset uses 70 MHz. This can give a range of up to 2 kilometres. The base station does not have a built-in telescopic antenna, instead it has two whip antennas that fit into two SO 239 sockets on the rear of the case. Not only does this arrangement give greater range, it also allows the user to plug in bigger and better outdoor antennas, should he want to. The front of the case has three indicator lamps, one to show that the power is on, one to show that the battery charger is in operation and another to show that the unit is in use. There are two pushbuttons on the front, one for the power and a CALL button for the intercom facility. The left-hand side of the front panel is a socket for the slightly unusual battery packs that fit into the handset. This model is supplied with two self-contained battery packs that slot into the handset. This means that the set can be used with one pack while the other one is being recharged inside the base unit. This overcomes one of the major problems associated with cordless telephones, the battery in the handset



always seems to run out just when you want to use the thing. The CT-595 handset is quite large and it has the usual keypad with re-dial facility. Some sets have a built-in telescopic antenna and some have been modified to take a 'rubber duck' type of flexible antenna. The telescopic one is quite long, so the flexible one is more convenient to use. This model also has a security code switch to prevent unauthorised use and this is especially useful because this set has such a great range. This is not the smartest of cordless telephones, nor does it have the most facilities, but it does have the greatest range of any that we have examined and that is why it costs £299.

The instruction booklets that are supplied with these gadgets go into great detail about how they should be sited so that their signals will travel the maximum distance and how certain sources of interference such as electric drills and fluorescent lights may cause the handset to ring. Unfortunately, because these units were not designed for use in this country, the instructions for connecting them to the telephone lines are not at all helpful and a reasonable amount of knowledge of how the British system works is necessary in order to install them.

CORDLESS PHONE REVIEW DATA PANEL

Model CT 505
Distributor Telephone Box
Typical Price £299

Features	Yes	No
Rechargeable Batteries	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IN-USE Lamp	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Intercom Facility	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Auto Redial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Privacy Button	<input type="checkbox"/>	<input checked="" type="checkbox"/>
External Antenna Facility	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Security Code	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hand Free Operation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Range	1 km	

FREQUENCIES

49 MHz
 70 MHz

Use of an external antenna will increase the range of the CT505

CB

Rig Check



Space the final frontier, Brian W. Wright takes a Compact 40, puts it into his car and finds that it will fit just about everywhere

Wagner Compact 40 SPACE SAVER

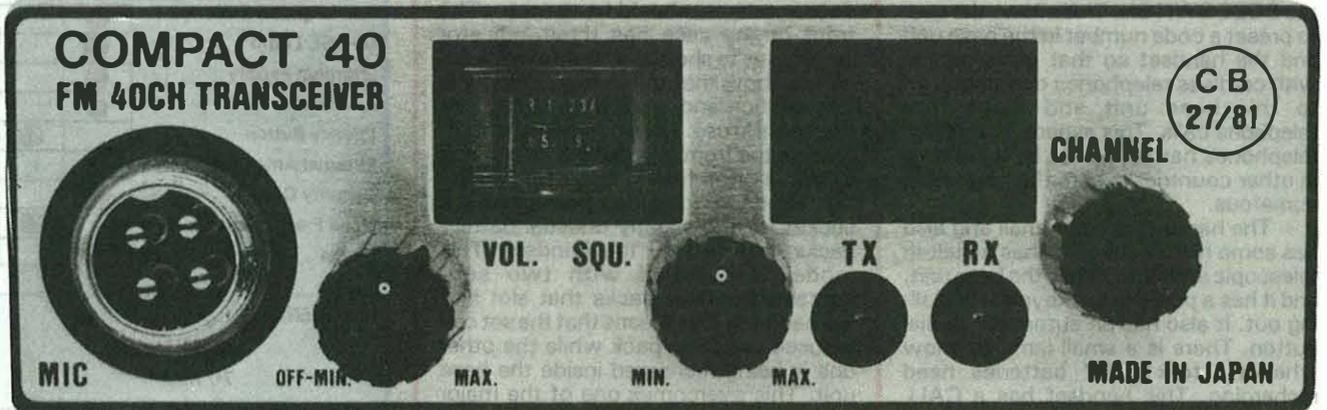
One of the first problems the would be mobile breaker encounters, is where to fit the rig. This would appear to be a simple enough problem to solve at first sight, but in many cases it becomes more difficult the more he looks into it. There are several things to consider if the job isn't going to be a bodge-up. The breaker needs to be able to operate his rig with the maximum ease and comfort and minimum distraction from his driving. This usually means that the rig must be sited close to the driver yet must not interfere with any of the vehicle controls. Sounds easy enough, but very often, no matter what size the rig is, it is just too big to fit in that nice little spot that you had in mind. Well, you can now stop scratching your head, for help is at hand (splinters under the fingernail are painful anyway). **The Compact 40** rig from Knight Communications, featured in this month's Rig Check should solve most of your space problems at least.

The Rig

The Compact 40 is a very suitable name for this rig, which measures a mere 120 mm x 39 mm x 177 mm deep excluding knobs etc. Although this is a small inexpensive rig, it is quite well made and some thought has been put into the control layout.

The outer box is constructed in the usual two halves from plastic coated metal. The brushed aluminium front panel has a black plastic surround which stretches back about 20 mm before meeting the metal case. A considerable amount has been squeezed, quite neatly, into the small space available on the front panel.

The most surprising thing to find on the front panel of a rig of this size is the mike socket and a four pin locking ring type at that! To the right of the mike socket is the volume control and on/off switch, followed by the squelch control. Very nicely placed above and between these two controls is the power/signal strength meter. Yes I did say meter, usually manufacturers resort to fairy lights, sorry I mean L E D displays on these small rigs. The meter is smaller than average and it is not really possible to see the numbers whilst mobile. This is compensated for by the fact that the fairly wide red needle is easy to see against the black background — illuminated by the green backlight. It is therefore possible to get a good idea of the meter reading by the position of the needle across the scale. On the extreme right hand side and slightly higher than the volume and squelch knobs, is the channel selector knob. Above and centrally between the squelch and channel selector is the clear green LED channel indicator, which is normal size. Below the channel indicator are two



Big mike - little rig



round LED indicators, green for receive and red for transmit. Controls etc are clearly marked in black on the aluminium front panel. All three knobs are in black plastic and are the same size, about 12 mm diameter. Despite the small size of the channel selector knob, channel selection is quite easy due to the flutes all round the knob. The only control that is a little difficult to operate is the volume control, as this is rather close to the mike plug which is a comparatively large item on this front panel. The microphone itself is a type found on many of the more expensive rigs and is quite comfortable to use.

At the rear of the Compact 40, the power supply wires go directly into the rig, instead of connecting via a plug and socket as is usual with most rigs. An extension speaker socket is provided on the rear panel as well as the 10 dB attenuator switch. We usually like to see the attenuator switch on the front panel, but I suppose it was inevitable that there just wouldn't be enough room on the front panel of a rig of this size for everything.

On Test

In operation, the Compact 40 gave a good signal with clear but quiet modulations. A rough check on the deviation level showed it was only averaging 0.5 kHz when talking loud and close to the mike, which is well

below the normal average of 1.5 kHz. This may have been a badly set up sample, adjustment to correct this is usually quite simple but should be done by a competent person. The receiver, whilst not brilliant works fairly well and gives a good clear readable output. Only slight desensitizing and bleedover was encountered even when used homebase at busy periods. One slightly unpleasant characteristic of this rig was the increase in background noise that appeared over our copies if a strong local signal was present a few channels away. Volume and squelch were adequate and the squelch cut in and out cleanly when set correctly.

The instruction booklet provided is small but contains adequate information for installation and operation of the rig. Mike holder and fixing brackets etc. are provided as usual.

Conclusion

Summing up, we consider the Compact 40 to be a neat little rig that performs as well as most in its price range and better than some costing twice as much. It shouldn't be difficult finding a place in the car for it and priced at around £25 it won't damage the bank account too badly.

Our thanks to Knight Communications for supplying the review sample.

CB

RIG REVIEW DATA PANEL

Model Compact 40
Distributor Knight Communications
Typical Price £25

Features	Yes	No
PA Facility		●
External Speaker Jack	●	
TX Indicator Light	●	
RX Indicator Light	●	
PA Indicator Light	—	—
S/RF Meter	●	
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

Mode Of Operation	FM Only
No. Of Channels	40
Weight	1.2 Kgs
Dimensions	120x39x177mm
Supply Voltage	13.8v
RF Output Power	4W max.
Frequency Stability	—
Swamping	Fair
Sensitivity (RX)	Good
Spurious Emissions	—

CB VERDICT

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

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.

Mack Chat

Mack is on the campaign trail again asking for more channels, if for no other reason than to thin the wallys out a bit — and a word or two on the general CB scheme . . .

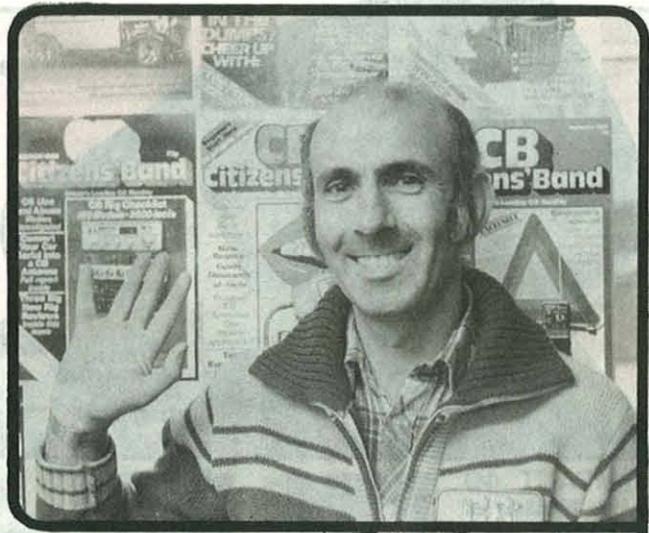
Have you had your licence renewal reminder yet? I wonder how many people have or will be handing over another £10 to the post office. The question being asked is what has one got for one's 10 quid? Any good done on the bands and that includes sorting out the frequency abuse have been done by the breakers themselves so, many may feel that to give the Home Office another fee is not on.

Maybe you believe that as yet no one has inquired if you are the owner of a licence and maybe no one will do so in the future. What's to stop a group of people — all the owners of rigs — donating a few bob each into the hat and one licence is taken out in one person's name and if one ever gets stopped at any time you disclaim ownership of the rig and name the licence holder. I don't suppose many would go to these lengths, but it's just one of the many loop-holes in the CB licence law.

There is under way by some breakers in the West London area a campaign to press the authorities for more channels on the present 27 FM frequency. I wish them luck and they have my support — for all it's worth. But yet again we have the argument — would more channels make much difference? It's being said that it would only be more channels for the wallys to play about on — but then an extra 40 channels might spread them out a bit. Even so another 40 would be most welcome. If we did get extra channels, would they be higher or lower to what we now have? On the market at the present time you can purchase an 'Icon' 80 channel FM rig that has the extra 40 channels — illegal of course — above the present legal ones. So that takes them into the amateur bands. The licenced amateur will jealously protect what frequencies they have so, if you use these higher channels, don't be surprised if you find yourself being jammed with carriers or frequency tests that some amateurs will put out if they find poachers on their bands. The only place to put any new channels would be lower than those we have now as no-one is using these at present.

I was always an early riser and now, when I wake early during the weekends, I will switch on the rig with the headphones on so as not to wake the wife. I lie in bed listening to the different nets in progress and occasionally adding a few comments. Some may think these early DX nets are boring with the chairman passing the frequency around to the stations in turn to try to copy other stations some distance away. If this is what these people want and it gives them pleasure then good luck to them. Occasionally I like to have a go on these nets if only to check that I am getting out and making the trip to these DX stations.

In on one of these nets the other morning an interesting discussion — or argument — started when two breakers came on the channel and started a conversation with each other. Naturally the chairman of the net asked



the breakers that had just come on to remove themselves to another as the channel was in use and a net in progress. Well the intruders pretended not to hear and continued with their QSO. After a while and continuous calling from other net members, one of the intruders acknowledged the chairman's call and told him that he could not hear any other breakers on the channel as he was talking to a mate along the road and had his squelch up to eliminate other stations.

So the argument developed with these breakers and the net. The intruder insisted that he had every right to use the channel as he was working a short distant breaker and if others used the channel, as he did, with his rigs controls correctly set then many other pairs or groups of local breakers should be able to use the same channel without interference to others. I agree that it was a selfish attitude to take and the intruding breakers — as we proved — were trying to break up the net but in fact he was correct in his theory. CB is supposed to be a short range communications system but how short is short?

Another argument that has developed from time to time is when breakers are conversing on a channel and another group appear on the same channel and are asked to QSY as the channel is 10-6 and has been for the last 2 hours. Could the new group of breakers in return tell the others that they should switch off as they have been on for too long? Well the code of conduct recommendations do state that transmissions should be kept as brief as possible and many QSOs do go on a bit.

Do you ever stop and wonder where or what has happened to a particular station that you suddenly no longer hear on the bands? You could be correct in guessing that they have tired of the hobby, but others may be caused by more tragic reasons. I am sure every breaker at one time or another had spoken to or heard the 'Pioneer' station booming out his messages of traffic reports and other travel information in the North East London area. Even before we went legal 'Pioneer' or Ted as he was known to his many friends was always willing to offer directions to the lost traveller in his area. With legality, his successful attempts to organise the channel 19 for the help of the mobile stations, whilst commuting to and from the home and works 20s, was well known to many breakers. Alas the 'Pioneer' station is no more. He died at the age of 68. His son Ken 'Drifterman' told me that his family were amazed at the turnout of breakers and the floral tributes that were sent for the funeral. At the service in the church it was standing room only. CB was only one of the many activities in which Pioneer participated in his local area but radio was still one of his great loves. One ambition he did not fulfill was to obtain a radio amateurs licence and he was studying for the exam which he had hoped to take sometime this year. I am sure he would have passed with honours. 'Pioneer' we will miss you.

CB



QSL card swapping is a lot of fun. Each month Medicman tells you of the better clubs, where to get your cards printed and features a 'Club of the Month'. Plastic cards to hand made cards, they are all worth collecting. Drop a line to Medicman and become a part of this fine hobby . . .

COMMUNICATION THE QSL WAY

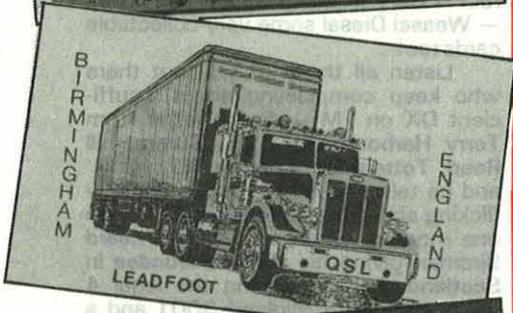
Absolutely amazing! What a super response to our new QSL column, some 330 letters of all shapes and sizes, and we will do our best to give as many of you as possible a mention.

The largest package this month came in an envelope festooned with some of the world-wide QSL clubs that Paul and Lin Jukes of 100 Dudley Road, Tipton, West Midlands DY4 8DL belong to, and there are some very interesting clubs amongst them. The cards enclosed were extremely varied and interested. A magnificent 'Sundown' custom beautifully produced, some personalised 'Cooky's QSLs Series, Paul and Lin hold No 44 in this excellent series and a pile of interesting 'floaters' cards from their contacts - a really well put together QSL pack.

Next one out of the postbag was from Cliff Edwards, a lengthy letter and some excellent QSL cards. A double folded card from the *WRK DX CLUB*. Colourful cards from the *COBRA OPERATOR'S CLUB*, the Club card of the *DELTA-DELTA X-RAY CLUB* of Telford, *CHARLIE BRAVO CLUB* cards, and some personalised *BRITISH CONCORDE CLUB* cards just to mention a few. You can QSL Cliff at 18 North Road, Wellington, Telford, TF1 3ED, he is a real 'must' if you are a Club card theme collector. QSLing seems to have special appeal to the younger CBers, from among whom comes a letter from Adrian of 10 High Street, Shaftesbury, Dorset who has had some nice QSLs printed by Saxon office Services in Shaftesbury - very well produced cards too. Adrian welcomes QSLs and will answer all received. 14-year-old Steve whose handle *RATTLESNAKE* offers an eye-catching theme for his own personalised QSL, even a QSL-contact charter came with his QSLs, and if you would like a copy a QSL to Steve at 15, Savernake Avenue, Melksham, Wilts should bring the desired results. By co-incidence Steve enclosed details of the *FREE (Yes -*

free) ZULU WHISKEY SIDEBAND CLUB run by our old friend Gordon up there in Halifax. The next letter was in fact from Gordon saying he had changed his address to P.O. Box 14, Brighouse, West Yorkshire, so do write to Gordon and enclose a SAE and five of your own signed and dated QSL cards for FREE membership of his great club. I have specifically endorsed the *ZULU WHISKEY* as Gordon is particularly worried about my mention of rip-off QSL clubs who either do not respond or send a mediocre club pack for your hard earned money. As I currently have some 120 British QSL clubs on file it would take too much space to list them all, but if you closely follow our column over the next few months you will soon get the idea as to where to invest your money in return for a good club. Gordon's can only be classified as a genuine first class club, not only because it is free, but he must put a great deal of time and effort into the running of it - well done Gordon, and what an impressive list of membership numbers. *Lazy Racer* alias *Bruce* from P.O. Box 29, Kilmarnock, KA1 4QG, Scotland QSLs with some great personalized cards that I recognise as being from the *Derwent Press*. These were *BRITISH CONCORDE* cards, yet another for this theme collectors. Next another Derwent personalised QSL from *Chessman* - *David Grant* of 63, *Durward Rise, Dextridge, Livingston, West Lothian EH54 6HU, Scotland*, he asks for a mention as he QSLs 100%, and he is looking to be a representative for any clubs, so all you presidents out there here is a dedicated volunteer for you.

I have just mentioned the *Derwent Press* their address is 69, *Langstone Drive, Exmouth, Devon*, they have been printing QSLs for CBers and Amateurs for years now, very reasonably priced colourful cards - a 25 pence stamp will bring samples and full details. Another specialist in QSL cards for beginners is run by *Diane Currie* known to a lot of us as *D. Currie Printers* of 89, *Derwent*



Street, Consett DH8 8LT – a stamped addressed envelope will bring full details of their cards. Must just give a mention to another 'free' club which has really taken off in a big way – the **DRAGONRIDER QSL CLUB** membership is just five of your QSL cards and a large envelope (stamped of course) to **David, 3 Tarn Villas, Cowpasture Road, Ilkley, West Yorkshire LS29 8RH**. A superb club rubber stamp is available if required at £4 – great club. From **Pierre Quevatre of Flat 22, 73, Hauteville, St Peter Port, Guernsey, Channel Islands** comes a very well put together QSL pack lots of cards, tourist information and some personalised QSLs, well worth a swap!

From a fellow breaker who used to live in County Durham and now lives in West Germany comes an informative epistle and a huge pile of QSL cards. **Travor Gerrrens of 31, Hammerkirchweg, 4060 Viersen 1, West Germany** who tells us they are allowed just 22 channels FM, 12 channels AM with a maximum output of just half a watt – and we thought we were hard done by. Trevor does add that he finds this totally inadequate and the range is very restricted, but you only pay about £3 for a home base licence – mobiles and portables do not have to be licenced – personally I would like to see at least 100 channels all modes to include the FCC channels but that's a discussion for another time – until then I'll stick to my standard 40 FM. Trevor's QSLs every letter and has piles of German cards to distribute if you are interested – don't forget a few view-cards to make him feel home-sick! Another received from



West Germany comes from **24432988 Spr Halley of 306 Army Plant Park, BFPO 110**, he says that any *Citizens' Band* reader who sends him a stamped addressed envelope and their QSL card will receive at least ten German QSLs in exchange – that's an offer you can't refuse isn't it?

Nice letter in from **Andrew of 138, Cromford Hill, Cromford, Matlock, Derbyshire DE4 3QU**. Andy is into DXing quite heavily and has made many contacts world-wide. He is always ready to swap QSLs, and is a member of the **Spanish Amateur Radio Club** and the **Gruppo Radio Italia** – the **ALFA ROMEO CLUB**, and would especially like to hear from fellow club member as he is

considering starting a new British DX Club. He also asks if we might print a Country-prefix list as he has collected quite a few different. As soon as space permits Andy we will let you see the two that are commonly accepted. News of a nice little club called the **OCTOPUS 4 PLUS 4 CLUB**, their main task is to just swap QSLs, no money, no ties – just send them eight QSLs and they will exchange the same number with details of their club – catch them c/o **Linford Post Office, Linford, Essex**.

Yet another FREE club – this one the **METRO CITY QSL CLUB**, a SAE and just five of your own QSL cards to **95, Greenoak Crescent, Stirchley, Birmingham B30 2TD** will bring you a membership pack. An interesting letter and QSLs in from someone who just signs himself as **K9 ALPHA of 45, Manfield Road, Balerno, Midlothian**. He works with 32 children in care, all of whom he tells us are CB mad. They produce their own QSLs, and have even affiliated with a local disabled CB group up there called the **29'ers**. A few of your own QSLs and some picture postcards will make some youngsters really happy

HELP! a letter from **23-year old Cyril Monteith of 35, Beechgrove, Newport, Mukamore, Antrim, BT41 2BW Northern Ireland** tells us he is in very poor health, having had 17 operations for kidney trouble, all he has to occupy him are his hobbies which are CB and QSLing, collecting coins, paper money and car number plates. I have already sent Cyril a package to cheer him up – how about showing him *Citizens' Band* readers really care and send him some great QSLs and bits and pieces. From **Maurice O'Brien of 51 Adair Road, Eastney, Portsmouth, Hants** comes a very attractive QSL pack – lots of personalised cards, tourist information, floaters and eyeball cards by the score – definitely 10 out of 10 for this one! Three for the price of one – all personalised cards from **Ray Ward of 1 Overbrook Drive, Cheltenham, Glos GL52 3HR**. Ray goes under the handle **Guard Dog**, also abiding under the same roof is **Gary – Silver Saddle and Derek – Weasel Diesel** some very collectable cardstool

Listen all those of you out there who keep complaining about insufficient DX on FM – had a letter from **Terry Harboure of 121, Summerhill Road, Tottenham, London, N15 4HR** and he tells this story: 'I was recently flicking about the channels at 7.15 am one morning when on Ch 37 I heard Birdman giving his QTH as **Dundee in Scotland**. I was pushing the legal 4 watts through a Midland 3001 and a GPA 27 half wave antenna and a skipmaster 45000 mike. The received signal was a full plus 30, and the QSO lasted for a full five minutes.' For those doubting Thomas's Terry even sent me the confirming QSL, fully authenticated – super contact Terry.

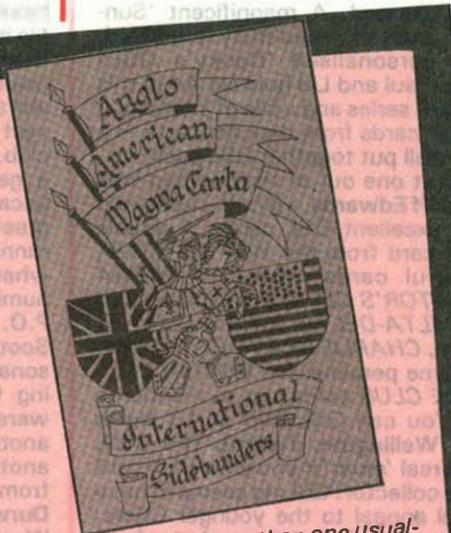
From **Alan alias Silver Rims of 36, Chaternefield Crescent, Heathhall, Dumfries** comes a well packed QSL filled with all sorts of goodies, badges, lots of cards, invitations and beer mats, sur-

QSL Club Of The Month:

ANGLO-AMERICAN MAGNA CARTA INTERNATIONAL SIDEBANDERS, 10 TOLCARNE ROAD, Newquay TR7 2NQ, Cornwall.

The Anglo American Magna Carta has rapidly become one of the leading DX-QSL clubs in this Country and all their literature labels and rubber stamps are of the highest quality. This club is expertly and enthusiastically administered by Micks Marks whose handle 'Nimrod' is well known to most QSLers. The club was so called because of the QSL contacts made with friends in the USA, who rightly thought a well-run club with hard working representatives on both sides of the atlantic would be a firm step towards better sidebanding. The club boasts three different superb rubber stamps and a very novel introduction is worded on their club application as follows:

Gentleman Sidebanders, This is your personal invitation to enroll for your lifetime and then it shall pass on to your next of kin, thus friendships shall continue in the Anglo American Magna Carta Charter of International Sidebanders. This charter has been formed to spread fellowship, goodwill and loyal companionship the world over. We hope in time to become a worldwide heritage and International fellowship. As an elite Sidebander you will receive a Certificate of Honour, rubber stamp, I.D. card, large selection of special QSL cards and a car sticker. The membership fee of £9.00



might seem a little more than one usually pays, but the excellent membership pack is very well presented and well worth the investment.

As an added bonus, members of the Anglo American are offered attractive discounts on various other DX-QSL Clubs, as we has a special reduction at a certain Hotel in Newquay. The club has a very close affiliation with the **DORSET KNIGHTS DX GROUP**, and many QSLs and club items are printed with both club crests. Existing club members can purchase either of the two new rubber stamps at £2.50.

Currently with nearly 500 members worldwide this must be rated as the quality British club.

prising what you can find when you try. I always contact the local English Tourist Board, they have always got tons of super leaflets to dispose of which are a boon for overseas QSL contact. Alan QSLs 100% and will do his best to send you a good return QSL.

A newcomer to the hobby is Dave 'Leadfoot' Buckingham of 186 Sommerfield Road, Woodgate Valley, Birmingham B32 3TA, Dave has some really attractive QSLs not only for himself but his better half Moondust, and they QSL all letters.

Next out of the bag was a colourful QSL from Pathfinder alias John of Green Meadows, Winders Hill, Godstone, Surrey RH9 8DQ, I think its a nice card John, shame about the printers though (Joke). From Flying Scotsman Gary Farquhar of 13, Graigmarolnn Gardens, Altens, Aberdeen, Scotland comes details of his favourite club — THE FLOWER O SCOTLAND CARDSWAP-PERS CLUB, which is not surprising as he runs it! Looks like a regular club with lots of goodies drop Gary a QSL for a membership form. Gosh! this one's posh! First time I have received a rigid plastic personalised QSL, how novell if you want one for your collection QSL to Paul 'Rimfire' Darren at P.O. Box 81, Bexleyheath, Kent should do the trick, and details of Paul's club will also be sent.

The name of Malcolm Fisher who lives at Aughnish, Ramelton, County Donegal, Ireland should be well known to most of the well established QSLers, Malcolm consistently sends out high-quality QSL swap packs, I've lost count of the number of clubs he belongs to, he has two personalised QSL cards of which I am particularly fond, one is club card of the IRISH ROVER INTERNATIONAL DX GROUP, the other is the ALFA TANGO INTERNATIONAL DX

GROUP, see how you fare with a QSL to Malcolm. A nice home-brew QSL in from Mr Les Harris Horse Power of 6, Thoresby Road, Long Eaton, Nottingham NG10 3NP, Les promises a reply to everyone, and says he thinks our QSL article is so great he has ordered a copy of Citizens' Band every month — now there's a man with taste! A young breaker who goes under the handle Plastic Carrot — he is really Kevin McConnell of 2, Avondown Road, Durrington, Salisbury, Wilts SP4 8ET asks for a mention and pleads for some QSLs — can you help?

It's great to hear again from some of my earlier QSL contacts, Peter Evans of 90 Caecoed Llandyble, Ammanford, Dyfed SA18 3UG, South Wales is still into QSLing in a big way, he always does it right — a nice selection of 'floaters', all signed and dated, some of his own cards, with all his club stamps on, he even includes tourist information for beautiful Wales, when we start the Citizens' Band QSL Award I'm sure you will be first in the queue Peter, and rightly so! An enquiry from J MacLennan of 286, North Bacnagask Road, Torry,



Aberdeen, Scotland ask for the address of the SIERRA VICTOR INTERNATIONAL DX-QSL CLUB, well my friend their address is 43, Greendon Rise, Siloby, Leicester LE12 7TE and the President is Peter Breed, nice club too, good package.

Talking about Wales, a large percentage of the postbag emanates from the valleys, one such QSL was from Tony of 191 Court Street, Tonypany, Mid Glamorgan CF40 2RM, he sends two striking QSL cards, The RHONDDA FRIENDS CHANNEL ONE-FOUR CLUB, simple but so effective, and a graphically correct WHISKEY DELTA SSB & QSL CLUB card of the Welsh Dragon Club, both superb cards. Tony tells us that the Welsh Dragon Club meets every Sunday at The Royal in Trealaw, Rhondda, drop Tony a card for full details.

To finish off with this month I must mention an enormous QSL that dropped through the letterbox — from Martin 'Bombay Duck' of 23, Milton Avenue, Leyfields, Tamworth, Staffordshire, a real laugh!, see if Martin will send you one to brighten up your day.

Well that's it for another month my friends, please don't be too disappointed if we haven't managed to give you a mention, please write again and we'll do our best to include you. May I just ask for your help in closing, most of you will know I am a member of REACT, may I ask on your personal help in keeping all QSO's off Channel 9, on behalf of all Monitors so that we can be there when you want us. Thanks for all your letters, look forward to seeing you all next month, till then, TAKE CARE — WE CARE.

CB

Letters please to Mike Newbold at 124, Hillcross Avenue, Morden, Surrey SM4 4EG.



Citizens' Band Magazine List of New QSL Contacts

N. VAN VEEN

JOHN SEAMAN

R SEAGEANT

PETER CHENOWETH

ROGER

GARY AND SHIRLEY KENNEDY

WILLIAM OGGER

CHRIS

PEARL

STATION VW16

G. STEFANI

M.J. (MALCOLM)

KENNETH HAWKINS

P.O. Box 267, 3340 AG H.I., Ambacht, Netherlands.

16, Delaware Crescent, Shoeburyness, Essex.

Glenairlie, Crocketpond Road, Dumfries, Scotland.

Box 340, McLaren Vale, SA 5171, Australia

54, Ronald Road, Halstead, Essex.

P.O. Box 234, New Glasgow, Nova Scotia, Canada B2H 5E3.

103, Parkinson Avenue, Staten Island, NY 10305, U.S.A.

119, Barnwood Avenue, Barnwood, Gloucester.

P.O. Box 179, Powell, Wyoming 82435, U.S.A.

P.O. Box 2243, 5600 NA Eindhoven, Netherlands.

P.O. Box 13, Ciampino, Airport of Rome 00040, Italy.

11, Windsor Road, St Helier, Jersey, Channel Islands.

10, Richard John Road, Milford Haven, Dyfed, South Wales SA73 2PL.

RITA BURGESSON

PER

JACKIE COOPER

HARRY GLOVER

Mrs V KELLER

MANFRED GOEDEKE

BILL COOPLAND

STEVE

ROBERT DURDLE

ADA (Lady Kadimah)

ROBERT DAWSON

RUTH

SAN DIEGO

DONAL SKELLY

T.H. JOHN

29, Warnock Street, Lowell, Mass 01852, U.S.A.
P.O. Box 77, 8500 Grenaa, Denmark.

95, Greenoak Crescent, Stirchley, Birmingham B30 2TD, West Midlands.

P.O. Box 355, Kraaifontein 7570, South Africa.

514, Hand Avenue, Lancaster, PA 17602, U.S.A.

Geschw-Scholl-Str 6, D 4352 Herten, West Germany.

226, Rock Street, Pitsmoor, Sheffield, Yorks S3 9JF

56, Main Street, Shildon, Co Durham DL4 1AQ.

Shea Heights Post Office, St Johns, Newfoundland, Canada AOA 1J0

P.O. Box 499, 4380 AL Vlissingen, Netherlands.

7, Bold Street, Altrincham, Cheshire WA14 2ER.

2026 Prince Avenue, Owensboro, KY 42301, U.S.A.

Sterrebos 39, 4001 GA Tiel, Netherlands.

172, Ard Foyle, Merville, Co. Donegal, Ireland.

2, Cedar Street, Cwmgwrach, Nr Neath, W. Glamorgan, South Wales SA11 5PS.

MAY
ISSUE WILL BE ON SALE
FRIDAY
15
APRIL

Ah... the month of the Mayfly and waxed lines drifting on dappled water to tempt the big brownie out of the brook and into the frying pan. Cabin cruisers off the shore and buckets filled with mackerel. Casting clouts and wondering why the old outboard won't start — it's sulking because you left it in the shed all winter! Tadpoles and birds nests, sand filled sandwiches and mosquitoes — out in the fields, on the roads, on the briny and down by the river and your CB radio with you all of the way. We will be taking a close look at some of the aspects of Summertime CB on foot, on the water and mobile during the coming months... We start off with a feature on boating

NEXT MONTH

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

and CB in the very next issue!

Also, **Chris Peterson** will be taking an in-depth look at one of the more popular rigs on the market and telling you of his findings. Usually a surprise or two for the reader — and the manufacturer — when Chris gets his screwdriver out and into action.

Brian W. Wright has got a new antenna up his sleeve — must be a bit crowded up there — and with the help of his able sidekick **Capt'n P** he will be mobile and modulating in an effort to get the facts to us by press time.

Mack the Hack will be adding his five cents worth to the month's happenings and bringing you a special

thought or two.

Due to the growing interest we will bring you an update on the cordless phone scene and tell you more about the new equipment on the market. **Back Chat** — your page — **Twong** the fallen hero — **CB Q&A** where **Smart Alac** will be sorting out some more of your very clever problems and all the latest on the CB scene... see you then!

HEY... don't forget let's be very careful out there!!!

COMPETITION

You have all been reading our little play on words inside the front cover each month haven't you? Of course you have — we can tell that by the number of groans coming out of houses with big twigs on the roof! Well, here is your very own chance to join in. All that you have to do is make up a little story — in not more than **150 words** — that fits in with your interpretation of — **A BIRD IN THE HAND IS WORTH TWO IN THE BUSH** — Nothing rude now 'cos we want to publish the winner's effort — in the place of honour — and this is a family magazine!

Those jolly nice people out there at **MAXCOM** have put up the prize of a **MAXCOM 20E** — a really nice little rig that the winner will be proud to own. They will also help to choose the winning entry. Sorry to make you work so hard for the prize but it is well worth winning.

Entries should be marked clearly — **FUNNY STORY COMPETITION** — and you will see that all of the usual rules apply when you read the little print at the bottom of the page. This is really an eyesight test and is set to deter people from entering the competitions and to save **Kev** — who you will note from last month's mag has been promoted — from having to open too many envelopes. Anyway good luck with the comp!!!

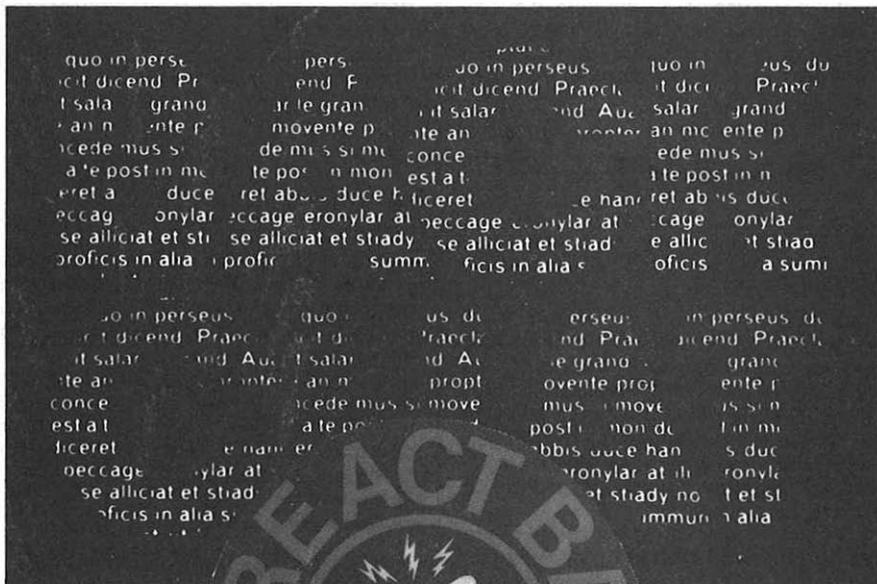
Don't forget the rules. No employees of ASP are allowed to enter... we have already tried it... All entries must be here by second post Friday 15th April. The Editor's decision is final. And, don't forget your name and address. Entries to Funny Story competition, Citizens' Band, ASPLtd, 145 Charing Cross Road, London WC2H 0EE.

WIN THIS RIG!





Lotts'a letters this month in response to the February issue. REACT and AIM and OI' Boiler – And it's no good complaining about 'bad news letters' – we print what we get. Read and respond, we want to hear from YOU . . .



Quick REACTION

Dear CB,
I feel it is necessary to comment on the letter published in your February 1983 issue, headed 'Mayday Nay Day'.

To some extent I would like to address these points on Channel 9 Monitoring to the CBer generally.

(1) There never has been a claim by any monitoring organisation that I know of claiming 24hr coverage although that obviously is the ultimate aim.

(2) Adjacent channel or location transmissions can and quite often do make a set deaf during that transmission, consequently accusations that 'monitors are not there when needed' is not necessarily true.

(3) Most of the time it seems that, as usual, the CB user making complaints, A – Does not bother to gather facts, B – Makes unqualified assumptions C – Listens to the tittle tattle on the airwaves – a most unreliable source which contains unsubstantiated rumour, D – Is the last person to offer their services freely as monitors and, E – Is the first to complain if there is no answer when he/she needs assistance.

(4) Monitors in general put up with a lot of hassle, bad language, hoax calls, abuse and so on, all of it generated by CBers – the very people who complain

when they need help are the people who discourage monitors from being there.

(5) Various factions of CBers are anti channel 9 for no other apparent reason than the fact that they wish to use 9. Are these people really as selfish and self-centred as they appear or is it right that we should all degenerate to that level and say 'I'm all right Jack'?

(6) As in all walks of life we have people in the monitoring groups who are not really suitable for the job in hand. These will no doubt be weeded out as we progress and learn.

To summarise I would like to ask all CBers to give Channel 9 a chance to fulfil the need that is obviously there. Give the monitors a chance, we are all still learning. The emergency channel on the UK FM CB network can and will improve if we give it a chance.

Tewkesbury React and Cheltenham React have handled over 300 incidents since legalisation day, of which every one is documented. Please don't be impatient, remember more volunteers of the right calibre will mean better coverage and more reliable cover.

Don't forget, you may need channel 9 assistance one day and it would be a pity if there was no one there to help because of the actions of a minority of CBers.

Licensing regulations on UK CB ►

prohibit the use of international distress call signs of which *MAYDAY* is one, as is *MEDICO*. Last but not least please remember that monitors are VOLUNTEERS.
J.M. Weatherby
REACT
South West Regional Director

Straight AIM

Dear CB,
In reply to Eric M. Stanhope of Melton Mowbray – Back Chat February – I sympathise with him, and am not surprised that he could not find a monitor on 9, but I am surprised at the alleged apathy of Breakers in the district concerned that they would not respond to his cry for help.

I would ask all to consider these facts. The basic fault in monitoring lies in the fact that the Government did not make a *LAW* that Channel 9 should only be used in an emergency, but only a recommendation that the channel be kept clear for emergencies.

This is not good enough, for all the wallies in creation know that they can use the Channel if they wish and no one can or has the right to stop them. As a result of this Government blunder, the monitors have to suffer the twisted minds of such warped people and it is hardly surprising that the monitor says, 'to hell with it', and switches off and no call for help is answered.

It takes a special kind of person to be a monitor and Monitoring Organisation should investigate their applicants more fully before giving them such responsibilities.

Having been disappointed, I hope that Mr Stanhope will join his local monitoring group, who I hope will train him, so that the next person to be as unfortunate as he, will fare better.

Philip P. Knight
Chainnan, A.I.M.

Press Cutting!

Dear CB,
I think Mr. Stanhope – Back Chat February – and breakers like him who complain about channel 9 not being monitored 24 hours a day should realise that people who are monitors, on various teams, are all doing the job in their own time. And, doing the job for no reward in any way other than the satisfaction of having helped someone in trouble. He should also realise that people like myself who have a daily job are not able to monitor for as long as perhaps we would like to.

If those breakers who complain about poor service on the Emergency Channel spent an hour or so of their time on one of the monitoring teams maybe then 24 hour cover could be possible.

It would be nice for a changeto read in the press of the good that has been done with CB and decent breakers instead of all of the bad reports. Even people without rigs have cause to be

grateful but we never read of any of their comments.

Mr. K. Furnell
Tonbridge
Kent

New Brooms . . .

Dear CB,
I am a very new breaker and have just got my first copy of CB magazine. On reading through it I noted the letter from James A. Miller about breakers needing a lesson on decency.

On two occasions I have given them a ticking off and they have cleared the channel. I do not know if I was right or wrong but in my own mind it was the right thing to do.

Peter Jaffrey
Berwick upon Tweed

If it worked, fine! In any event it is better than selling your rig and leaving them the freedom of the airways!

Northern Bites . . .

Dear CB,
I feel I must write in disagreement with the comments from James L. Miller's letter to CB – issue February 1983.

He has stated that a lot of Scotland's and indeed a lot of English CB operators are in need of a lesson in decency. May I say it is the Scottish CB operators who require the lesson and not the English. Please let me explain why I say this.

During a holiday in Derbyshire, I developed a very keen interest in CB and, after a fortnight modulating with the English breakers in and around Derbyshire, I decided to purchase some CB equipment to take home with me to Scotland. I never heard anything being said out of place during my holiday fortnight on the CB. However, since returning to my home twenty I have been doing a lot of tab hanging on my friend's CB and I am glad to say I did this before I set up my equipment. All I have heard on the Scottish CB is slang, foul and indecent modulation, playing music, keying mikes, inane conversations, mis-use of the breaking channel etc. etc.

When I heard the standard of modulation Scottish CB had to offer I was disgusted and decided to sell the CB equipment I had purchased and I can honestly say that I will not miss it. May I say to the 'Good Buddy' who wrote the letter, if he has his 'Ears On' listen in and around my 'home twenty' and see what I mean. I think you will understand. Is that a 'ten four'?

I cannot see any improvement at all for CB especially in the Glasgow area, where we are inundated with louts, and bucket mouths, who are mis-using the CB channels. Is it not about time the Home Office got off their back sides, and did something?

Alex Elder,
Glasgow.

North or South of the border Alex, you

will always find a minority ready and willing to spoil things for the majority.

Talk, Talk, Talk . . .

Dear CB,
May we – through Back Chat – thank all of the good buddies who supported our 48 hour, non stop sponsored modulation in aid of the CB Radio Diabetic Research Fund. Copies flew in left right and centre. We would especially like to mention the following breakers in the Alnwick twenty for their help. Early Bird – for the milk and everything else that he did which would take up far too much space to list. Mary Baker – for her wonderful baking. I would recommend her mince piesto anyone. Handy Man – for his fish suppers and, last but not least the junior breaker, Little John – for just being around when he was needed.

King Rat
Blue Mallard
Maverick
Morpeth

There, just as Mr Kurnhill requested, good news from a good bunch of breakers!

Writers Gramp!

Dear CB,
Prompted by my own opinions gleaned by reading your July '82 issue and against the advice of local hardened CBers, I have bought myself a DNT FM 40 Supertuned rig by Radio Technics.

I am absolutely delighted with it. I am not for DX copies and am content to modulate over reasonable distances, but it's hard to resist copies from across the Severn Estuary ie Wales, and as far down as Minehead and, others, at distance, when convenient.

True, the rig is costly and not available at discount stores or the Cash and Carry, but you can't buy a Rolls there either!

I have absolutely no connection with Radiotechnics nor any of their agents but I do congratulate them on for producing a super A1 rig.

How come new subscribers get a free binder, when we who have taken *Citizens' Band* on order from issue 1, and *Hobby Electronics* since issue 1 get left out in the cold?

John Durant,
Nailsea.

An old boiler you may be John but it is always nice to hear from you. Glad we could help and sorry about the binder. You win some – you lose some, I guess!

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.



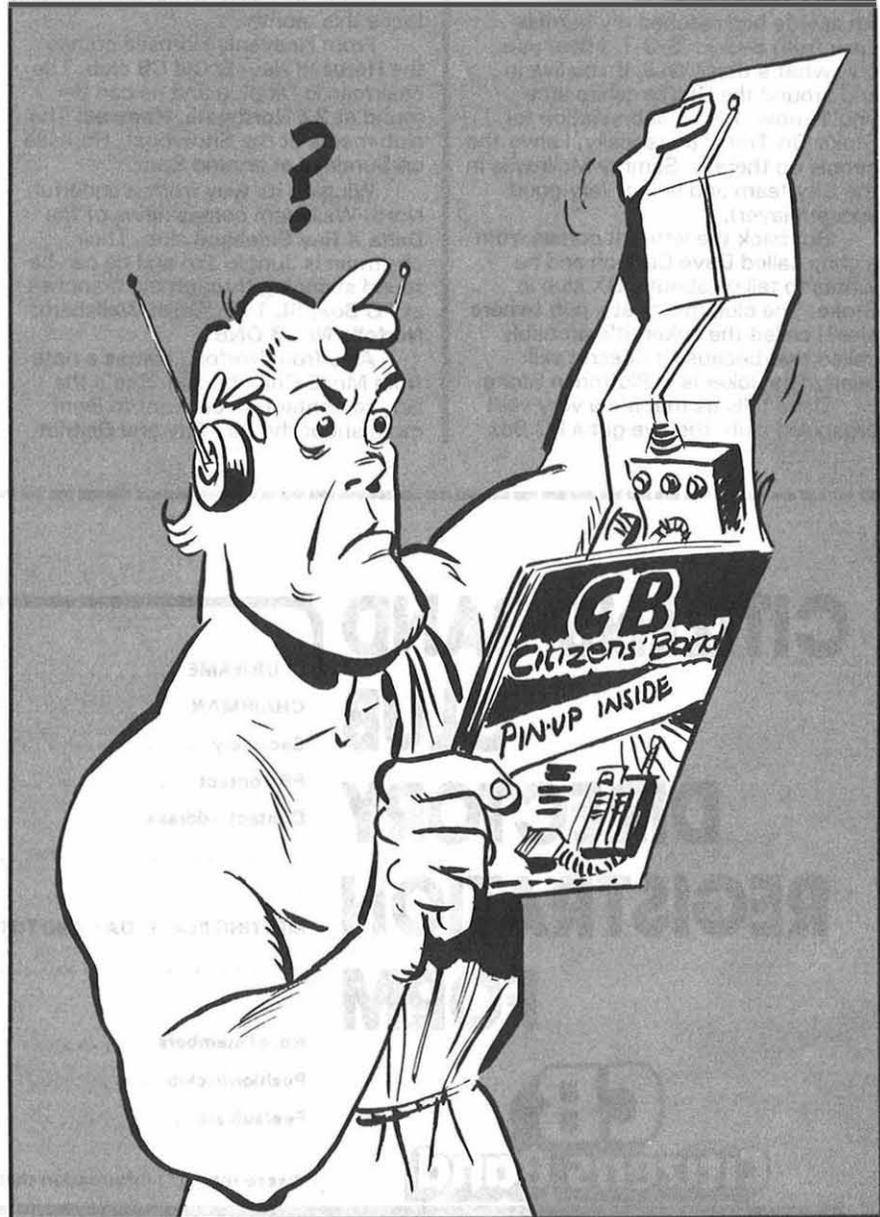
CLUB NEWS

Now, we all know that twong likes a pint or Two of Newkie Brown. But it seems that things are getting out of hand. Now all the clubs that write in meet in pubs. So we thought; why not give away five unique CB patches to the pub with the strangest name? Send your entry with your Club Directory Form.

Scaling the heights of clubs 'n' stuff this month are the Breakers of the Pyramid club. They're from the Wirral which is, if I can remember my geography, just below Liverpool and just to the left of Manchester. Now, the Pyramid breakers assemble weekly, on Wednesdays, at 8pm in and around the Ferry Hotel, Eastham,

Wirral. The Ferry Hotel is renowned Wirral-wide for its excellent beer. I have to say that, just in case I'm around that way one day and I fancy a free pint. Their almighty ale has been known to draw as many as 60 Pyramid breakers to the trough at one time. Powerful stuff.

The Pyramid people tell us that



their main aim is to help the disabled and less fortunate people than themselves. And although they'd only been together for six months at the time of writing they had already donated a number of homebase units to their new friends.

They've also started a section for Junior Breakers, which meets at the Silvendale Youth Centre, Spital between 3 and 5pm. The ages range from 5 to 17 and it's proving pretty popular. Word of the wild pre-Christmas party even reached us down here in the smoke. Anyway, great thanks to the inimitable Zig Zag, known to others as Lez Robinson, as he's doing a great job. Any enquiries about the club should be addressed to him at . . .

**Pyramid Breakers Club,
Ferry Hotel,
Eastham,
Wirral.**

Mixing It with Dxers

An epistle had reached my humble desk from S-O-T. 'S-O-T' I hear you cry, what's that? Well, if you live in and around the Staffordshire area you'll know. It's an abbreviation for Stoke-On-Trent. (Personally, I envy the people up there — Sammy McIlroy is in the City team and he's a very good soccer player).

But back the letter. It comes from a chap called Dave Curwen and he writes to tell us about a DX club in Stoke. The club meets at a pub (where else?) called the Joker (it's probably called that because it doesn't sell beer). The Joker is in Blurton in Stoke.

Dave tells us that it's a very well organised club, they've got a PO Box

and a well-designed QSL card. The fee to join is £3 and 50p per meeting for two months — all in all, by using fingers of both hands and my new calculator, that comes to £5. Dave then goes on to creep and crawl about the mag. Thanks Dave, flattery will get you everywhere. You can get in touch with Dave at . . .

**PO Box No 366,
Longton,
Stoke-On-Trent,
ST1 3SE**

New Clubs

Alright, here's the newbies on the club scene. Don't forget, if you're in a club and it's illustrious name has never appeared in the great and good pages of *Citizens' Band*, fill out the form below, pop it in the red box at the corner of the street and hey presto, a couple of months later it'll make it's debut appearance on these pages. But don't forget to put a stamp on it!

Right, as I said, these are the fresh faces this month . . .

From Heavenly Hornsea comes the **Hornsea New & Old CB club**. The chairman is Dinplug and he can be found at **22 Northgate, Hornsea**. The club meets at the Showboat, Hornsea on Sundays at around 8pm.

Winging it's way from wonderful North Wailsham comes news of the **Delta X Ray Sideband club**. Their chairman is Jungle Jim and he can be found swinging through the branches at **PO Box, SL 116, North Wailsham, Norfolk, Nr 28 ON8**.

Also from Norfolk, comes a note from Mrs E Chamberlain. She's the lady to contact if you want to learn more about the **Bay City and District**

Breakers Club. They meet at, yes you've guessed it, a pub. This one's called the Globe and it can be found in Wells-Next-The-Sea in Norfolk. The BC&DBC are there on alternate Sundays in the evening.

If you fancy a drink and a chat with them contact Mrs Chamberlain at . . .

Old Field Farm, Thornham, Nr Hunstanton, Norfolk, PE36 6NH.

The General (salute when you see him) is Chairman of the **Milland Valley Breakers**. Surprise, surprise they DON'T meet in a pub but at the local village hall in Milland. They can be found there fortnightly on Wednesdays at 8pm. If you fancy a bit of square-bashing or perhaps even a battle or two, contact the General at **4 West Meade, Milland, Nr Liphook, Hants**.

Finally, a breaker's blast from Brackley. The Don, intellectual Chairman of the **Three Counties Breakers Club**, writes to inform us of his next tutorial, sorry, meeting. The Club meet at the Brackley British Legion Club on alternate Thursdays at 8pm. The address to write for details is **PO Box 3, Brackley, Northants**.

Okay, that's all for this month. But there's just time for a terrible knock knock joke.
Knock, Knock.
Who's there?
Doris.
Doris who?
Doris locked so I had to knock.
There, told you it was bad.
Sorry.

When you send in the registration form — please enclose club badge-card or sticker.

CITIZENS' BAND CLUB DIRECTORY REGISTRATION FORM

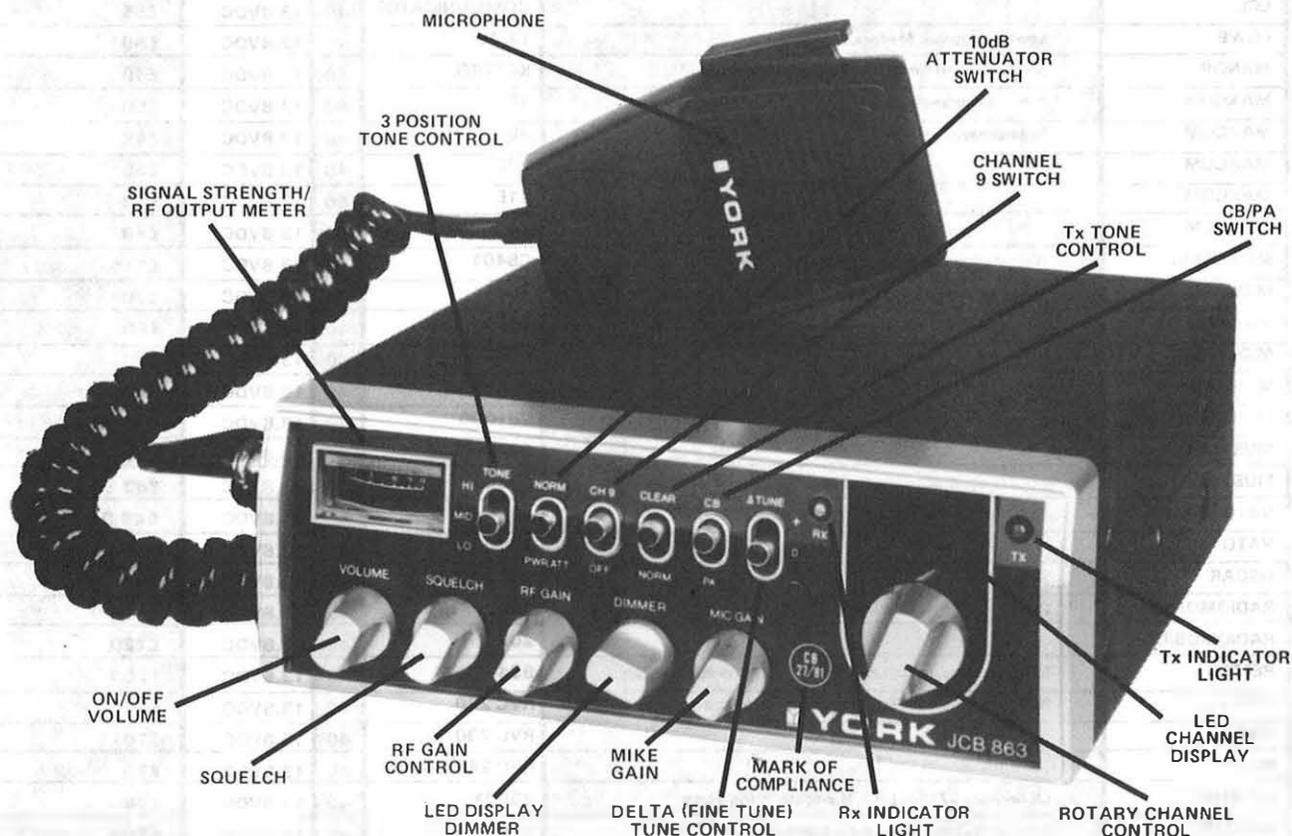


CLUB NAME ()
CHAIRMAN ()
Secretary ()
PR Contact ()
Contact Address ()
 ()
 (Tel No.) ()
MEETING PLACE, DAY AND TIME ()
 ()
No. of members
Position in club
Fee/subatc (Committee members only please)

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 of fluorescent type displays. Displays will normally be bright red, orange or green and visible in all but the most direct sunlight.

CH 9 PRIORITY

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

REFERENCE

MOBILES

NAME	ADDRESSES	MODEL	NO. OF CHANNELS	SUPPLY VOLTAGE	RETAIL PRICE
LCL	LCL Imports Ltd, 101 Dixons Green, Dudley, W. Midlands	2740	40	13.8VDC	£80
LCL		COMMUNICATOR	40	13.8VDC	£95
LOWE	Low Electronics, Matlock, Derbyshire	TX40	40	13.8VDC	£50
MANOR	Manor National Group, Oxford Rd, M/cr	KESTREL	40	13.8VDC	£99
MAXCOM	A.M. Telecommunications, AM House 17 Shepherdia Way,	4E	40	13.8VDC	£50
MAXCOM	Rickmansworth Herts.	6E	40	13.8VDC	£48
MAXCOM		20E	40	13.8VDC	£50
MAXCOM		21E	40	13.8VDC	£50
MAXCOM		16E	40	13.8VDC	£40
MICROLINK	Warman-Freed Ltd, 82 Golders 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
MUSTANG	KB & Co Ltd, 202 Cheetham Hill Rd, M/cr.	CB1000	40	13.8VDC	£49.95
MUSTANG		CB2000	40	13.8VDC	£59.95
MUSTANG		CB3000	40	13.8VDC	£89.95
NATO	Roger D, 831 Mansfield Rd, Nottingham NG5 3GF	40M	40	13.8VDC	£69.95
NATO		2000	40	13.8VDC	£189.95
OSCAR	S.M.C. Osborne House, Totton, Southampton	OSCAR1	40	13.8VDC	£85
RADIOMOBILE	Goodwood Wks, North Circular Rd, London NW2 7JS	201	40	13.8VDC	£80-90
RADIOMOBILE		202	40	13.8VDC	£120
REFTEC	RF Technology, Leyton Avenue Ind Est, Mildenhall, Suffolk	934	20	13.8VDC	£200
ROTEL	Rotal Hi-Fi, 2-4 Erice Rd, Stacey Bushes, Milton Keynes	RVC 220	40	13.8VDC	£50
ROTEL		RVC 230	40	13.8VDC	£70
ROTEL		RVC 240	40	13.8VDC	£90
SAPPHIRE	CB Services 97 Crab Lane, Harrogate, North Yorks	2000X	40	13.8VDC	£68
SHOGUN	Colliers Fm, Frieth, Henley-on-Thames, Oxon RG6 6NR	SHOGUN	40	13.8VDC	£100
SIRTEL	24 Afric Sq, Off Maxwell Rd, Woodston Ind Est, Peterborough	SEARCHER	40	13.8VDC	£40
SPIRIT	Martello Sound Ltd, Heywood Way, Ivyhouse Lane, Hastings	SPIRIT	40	12VDC	£100
STEEPLETONE	Park End Works, Croughton, Nr Brackley, Northants	SCB1FM	40	13.8VDC	£103
TANDY	Tame Way Tower, Bridge St, Walsell.	TRC2001	40	13.8VDC	£80
TANDY		TRC2002	40	13.8VDC	£70
TANDY		TRC2000	40	13.8VDC	£100
TANDY		TRC1004	40	12VDC	£79
TANDY		TRC 2003	40	13.8VDC	£130
TENVOX	Voxon Audio Ltd, Abingdon, Oxon	TENVOX	40	13.8VDC	£100
UNIDEN		UNI ACE 100	40	13.8VDC	£80
UNIDEN		UNI ACE 200	40	13.8VDC	£100
VIPER	Radio 88, Berking, Essex	VIPER 88	40	13.8VDC	£TBA
WAGNER	Knight Communications Ltd Unit 19 Britania Estate, Leagrave 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	£89
YORK		JCB 863	40	13.8VDC	£89

REFERENCE



SQUELCH	NB SWITCH	ANL SWITCH	MIKE GAIN	RF GAIN	TOONE 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		LCL
•			•	•	•	•		•		•	•	•		FL		LCL
•			•	•	•	•		•		•	•	•		FL		LOWE
•			•	•	•	•		•	•	•	•	•		FL		MANOR
•			•	•	•	•		•	•	•	•	•		FL	Maxon chassis	MAXCOM
•			•	•	•	•		•		•				FL		MAXCOM
•			•	•	•	•		•		•				FL		MAXCOM
•			•	•	•	•		•		•				FL		MAXCOM
•			•	•	•	•		•		•				FL		MAXCOM
•			•	•	•	•		•	•	•	•	•		FL		MAXCOM
•			•	•	•	•		•	•	•	•	•		FL		MICROLINK
•			•	•	•	•		•	•	•	•	•		FL		MIDLAND
•			•	•	•	•		•	•	•	•	•		FL		MIDLAND
•			•	•	•	•		•	•	•	•	•		FL		MIDLAND
•			•	•	•	•		•	•	•	•	•		FL	The talking rig	MIDLAND
•			•	•	•	•		•	•	•	•	•		FL		MUSTANG
•			•	•	•	•		•	•	•	•	•		FL		MUSTANG
•			•	•	•	•		•	•	•	•	•		FL		MUSTANG
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•			•	•	•	•		•	•	•	•	•		SL		NATO
•			•	•	•	•		•	•	•	•	•		SL	Cybernet 134 chasss	OSCAR
•			•	•	•	•		•	•	•	•	•		FL	Cybernet chassis	RADIOMOBILE
•			•	•	•	•		•	•	•	•	•		FL	Report Sep '81	RADIOMOBILE
•			•	•	•	•		•	•	•	•	•		FR	934 MHz - Still waiting!	REFTEC
•			•	•	•	•		•	•	•	•	•		FL	Cybernet chassis	ROTEL
•			•	•	•	•		•	•	•	•	•		FL	Cybernet chassis	ROTEL
•			•	•	•	•		•	•	•	•	•		SL	Cybernet chassis	ROTEL
•			•	•	•	•		•	•	•	•	•		FL		SAPPHIRE
•			•	•	•	•		•	•	•	•	•		SL	Up marketelegance Report June '82	SHOGUN
•			•	•	•	•		•	•	•	•	•		SL		SIRTEL
•			•	•	•	•		•	•	•	•	•		FR		SPIRIT
•			•	•	•	•		•	•	•	•	•		FL		STEEPLETONE
•			•	•	•	•		•	•	•	•	•		SL		TANDY
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•			•	•	•	•		•	•	•	•	•		SL		TANDY
•			•	•	•	•		•	•	•	•	•		-		TANDY
•			•	•	•	•		•	•	•	•	•		SL		TENOVOX
•			•	•	•	•		•	•	•	•	•		SL		UNIDEN
•			•	•	•	•		•	•	•	•	•		SL	Report coming soon	UNIDEN
•			•	•	•	•		•	•	•	•	•		FL		VIPER
•			•	•	•	•		•	•	•	•	•		FL		WAGNER
•			•	•	•	•		•	•	•	•	•		FL		WAGNER
•			•	•	•	•		•	•	•	•	•		FL		WESTERN
•			•	•	•	•		•	•	•	•	•		SL	Report Oct '81	YORK
•			•	•	•	•		•	•	•	•	•		SL	Cybernet 134 chasss	YORK

REFERENCE

FM RIG CHECKLIST

MOBILES

NAME	ADDRESSES	MODEL	NO. OF CHANNELS		RETAIL PRICE
				SUPPLY VOLTAGE	
ALBA	Alba (Electronics) Ltd, Buil Lane, Edmonton N18	CBMI40	40	13.8VDC	TBA
AMSTRAD	Amstrad Consumer Electronics, 1-7 German Road, London N17	CB901	40	13.8VDC	£89
AUDIO LINE		341	40	13.8VDC	£108
AUDIO LINE	CB Radio Centre, 337 Kenton Rd, Harrow Mddx	340	40	13.8VDC	£80
AUDIO LINE		342	40	13.2VDC	£149.95
BARRACUDA	Halfords Motor Accessory Shops	GT888	40	13.8VDC	£70
BARRACUDA		HP940	40	13.8VDC	£85
BINATONE	Binatone House, Beresford Av, Wembley, Mddx	BREAKERPHONE	40	13.8VDC	£99
BINATONE		ROUTE 66	40	13.8VDC	£79.95
BINATONE		5-STAR	40	13.8VDC	£100
BRAEMAR	Gamlinx Overseas, 348 Kings Rd, SW3 5U2	BRAEMAR	40	13.8VDC	£TBA
COBRA	Mura (UK) Ltd, High Rd, Willesdon, NW10	21 X FM	40	13.8VDC	£79
COLT	Shellpost, 183 The Rock, Bury, Lancs	295	40	13.8VDC	£80
COMMTRON	Roger D, 831 Mansfield Rd, Notts	CB40F	40	13.8VDC	£70
COMMTRON		CXX	40	13.8VDC	£69.95
CYBERNET	Goodmans Loudspeakers Ltd, Downley Road, Havant, Hants PO0 2NL	BETA 1000	40	13.8VDC	£70
CYBERNET		BETA 2000	40	13.8VDC	£85
CYBERNET		BETA 3000	40	13.8VDC	£100
DNT	Radiotechnics Ltd, Grove Way Bel Royal, St Lawrence Jersey CI	M40FM SPECIAL	40	13.8VDC	£100
ELFTONE	4 Beresford Av, Wembley, Mddx. HA0 1YA	ELC8 6000	40	13.8VDC	£TBA
EUROCOMM	Zycomm Electronics, Ripley, Derbyshire	EURO40	40	13.8VDC	£69
FIDELITY	Fidelity Radio Ltd, Victoria Rd, London NW10	CB 1000M	40	13.8VDC	£70
FIDELITY		CB 2000M	40	13.8VDC	£90
FIDELITY		20001 FM	40	13.8VDC	£70
GRANDSTAND	Bee-Ware Ltd, Ripon Way, Harrogate, N. Yorks	BLUEBIRD	40	13.8VDC	£90
GRANDSTAND		HAWK	40	13.8VDC	£80
GRANDSTAND		GEMINI	40	13.8VDC	£122
GREAT	Belttania Trading, Northam Rd, Sudbury, Suffolk	GT 8588	40	13.8VDC	£65
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	£89.95
HARVARD		H403 GOOD BUDDY	40	13.8VDC	£50
HARVARD		420M	40	13.8VDC	£100
INTERCEPTOR	Chelsea CB Centre, 73-77 Brittanla Rd, London	INTERCEPTOR	40	13.8VDC	£80
INTERCEPTOR		TC400	40	13.8VDC	£95
INTERCEPTOR		ONE HANDER	40	13.8VDC	£100
JOHNSON	Star Warehouse, Chalk Farm Rd, London	JOHNSON	40	13.8VDC	£50
JWR	Wolfe House, Norse Rd, Bedford MK41 0LF	M2	40	13.8VDC	£60
JWR		M3	40	13.8VDC	£90
KAISER	Kaiser Electronics Nevrottsresse 21-25, Weidorf Baden, W. Germany	UK 40	40	13.8VDC	£T8A
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		MANXMAN950	40	13.8VDC	£37.50



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This high quality R.F. Pre-amp for FM rigs can be turned up to a big 36dB gain! Essential for serious DX-ing — it brings out those normally undetectable signals. Also suitable for AM rigs operating on 4 watts.

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Superkrunch enhances the potential of your rig with phones or speaker.

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Ham Hypower Thunderbird.....	£34.95 (D)
Ham Big Mac Base Ant 7/8 Wave.....	£79.95 (D)
Ham Frequency Counter plugs into Ham models....	£39.99 (C)
Ham Relax Power Mike.....	£14.99 (C)
Ham 232S Processor Base Mike or similar.....	£29.99 (C)
Ham 232DX Processor Base Mike.....	£36.99 (C)
Ham Antenna Matcher with through switch.....	£9.99 (C)
Ham Set Brackets (will fit York, Rotel etc).....	£3.99 (A)
Ham Bracket Screw (will fit York, Rotel etc)....	each £1.00 (A)
Ham 3-5 amp Power Supply.....	£16.99 (D)
Ham 6-9 amp Power Supply.....	£29.99 (D)
Ham 10-12 amp Power Supply.....	£39.99 (D)
Ham 15-18 amp Power Supply.....	£79.99 (D)
Ham 20-30 amp Power Supply.....	£99.99 (D)
Ham Multimode II Front Fascia.....	£8.00 (B)
Ham Concorde II Front Fascia.....	£8.00 (B)
Ham Service Manuals (state model).....	£6.00 (B)

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ACCESS AND BARCLAYCARD ACCEPTED

REFERENCE

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, Haregate, N.Yorks	BASE	40	240VAC	£220
HARRIER	Dixons Photographic Ltd,	CB HQ	40	240VAC	£130
HARVARD	Harris Overseas Ltd, Harvard House, 14-16 Thames Rd, Barking Essex	H407	40	240VAC	£125
HARVARD		H401	40	240VAC	£149.95
JOHNSON	Star Warehouse Chalk Farm Rd, London	XK 2000	40	240VAC	£99
JWR	Woolfe House, Norse Rd, Bedford	DIPLOMAT	40	240VAC	£194
MIDLAND	Plustronix Ltd, Hempstalls Ln, Newcastle-under-Lyme, Staffs.	76-200	40	240VAC	£150
MURPHY	Murphy Electronics, Wembley, Middlesex	BASE	40	240VAC	£100
SPIRIT	Martello Sound Ltd, Haywood Way, Ivyhouse Lane, Hastings, Sussex	SPIRIT	40	240VAC	£100
WAGNER	Knight Communications Ltd, Unit 19 Britannia Estate, Leagrove 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
ELFTONE	4 Beresford Av, Wembley, Middx.	CB30	2	BATTERIES	£TBA
ELFTONE		P-3	3	BATTERIES	£TBA
HARRIER	Dixons Photographic Ltd	WT1	2	BATTERY	£25
HARRIER		WT2	40	BATTERY	£59.99
HARVARD	Harris Overseas Ltd, Harvard House, 14-16 Thames Rd, Barking Essex	0-2-0	2	BATTERY	£20
HARVARD		410T	40	8xAA cells	£89.95
HARVARD		10-4 CONVOY	2	BATTERY	£19.95
HARVARD		H6	2	BATTERY	£29.95
KAISER	Kaiser Electronics Nevrrotstrasse 21-26, Waldorf Barden, W. Germany	CBX40	40	BATTERY	£TBA
MAXCOM	A.T.M. A.M. House 9a Olds Approach, Tolpits Lane, Watford Herts.	7E	3	BATTERY	£TBA
MIDLAND	Plustronix Ltd, Hempstalls Ln, Newcastle-under-Lyme, Staffs.	75-720	40	12VDC	£119
TANDY	Tanis Way Tower, Bridge St, Walsall	TRC1001	40	BATTERY	£59.95

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	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	DNT
•						•								FL	DNT
•						•							•	FR	DNT
•			•		•	•		•					•	SR	Report May '82
•			•		•	•		•					•	FL	The most expensive base!
•			•		•	•		•					•	FL	Report May '82
•			•		•	•		•					•	FL	Report May '82
•			•		•	•		•					•	FL	New base from Harvard
•			•		•	•		•					•	FL	Cheapo base
•	•		•		•	•		•						-	JWR
•			•		•	•		•						FL	MIDLAND
•			•		•	•		•						FL	MURPHY
•			•		•	•		•				•		FR	SPIRIT
•			•		•	•		•						FL	WAGNER

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



SQUELCH	NB SWITCH	ANL SWITCH	MIKE GAIN	RF GAIN	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
•											•			-	BEAR
•								•		•		•		-	BINATONE
•														-	DNT
•														-	Report June '82
•														-	ELFTONE
•														-	ELFTONE
•														-	HARRIER
•					•		•				•	•		-	HARRIER
•														-	HARVARD
•						•		•			•	•		-	Report April '82
•											•			-	HARVARD
•											•			-	HARVARD
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•								•		•	•			-	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
ALLCOM		DPA 2UK	AL	1.5	100	M	—	E
AMSTRAD	Amstrad Consumer Electronics, 1-7 Garman Rd, London N17	CBA 1500	SS	1.5	—		Various	C
ANTENNA INC.		12610 Telecomm	SS	0.9	—	M	3/8ths	D
		Super Persuader	SS	1.5	—	M	Mag	F
		MR511	SS	1.2	—	M	Mag	G
		M710	SS	1.5	—	M	3/8ths	G
		ASM125	SS	1.14	150	M	3/8"	C
ASM128	SS	1.14	160	M	—	C		
ANTENNA SPECIALISTS	Antiference Ltd, Aylesbury, Bucks HP19 3BJ	AS M131	SS	1.14	160	M	gutter	D
		ASMR 440	SS	1.2	100	M	mag	D
		AS MT178	SS	1.2	160	M	mag	D
		AS M510	SS	1.2	200	M	3/8"	D
		AS M2000	SS	1.5	160	M	3/8"	D
		AS 9812	SS	1.2	160	M	mag	D
		IC 85	SS	1M	—	M	mag	D
		IC 80	SS	1M	—	M	spring-based mag	E
IC 15	SS	1	—	M	trunk	C		
ANTLER	Shakespere, Performance Antennas, Betton Rd, Market Drayton, Salop	IC 20	SS	1 1/2	—	M	roof	D
		IC 30	SS	1	—	M	gutter	D
		IC40	SS	1 1/2	—	M	mirror	D
		IC80	SS	1 1/2	—	M	mag	D
ARCHER	Tandy Corp., TerneWay Tower, Bridge St, Walsall, W. Mid.	21-904	SS	0.5	50	M	3/8" snap	D
ARMSTRONG	Stateside Trading Ltd., Audley Ave, Newport, Shropshire.	SAM 10	SS	1.06	1,000	M	surface	F
		SAM 20	SS	1.06	1,000	M	surface with	F
		TAK 10	SS	1.06	1,000	M	spring	F
		TAK 20	SS	1.06	1,000	M	boot lip	G
		MAG 10	SS	1.06	1,000	M	boot lip	G
		MAG20	SS	1.06	1,000	M	with spring	G
		BDY 20	SS	1.06	1,000	M	magnetic	G
PEC 20	SS	1.06	1,000	M	magnetic	G		
AVANTI	Avanti, 132 Penistone Rd Nth, Sheffield, Yorks.	AV 241 (Moonraker)	SS	1.22	—	M	with spring	D
		AV 241 T	SS	1.22	—	M	side	E
		AV 241 M	SS	1.22	—	M	side & fold	E
		AV 241 MM	SS	1.22	—	M	over & quick	E
			SS	1.22	—	M	disconnect	G
BADLAND	Badland, Roeten Ind Est, Providence St, Lya, Stourbridge.	B10	SS	1.22	—	M	boot lip	G
			SS	1.06	1,000	M	illuminator	G
BANDIT	Bandit, Roughem Ind Est, Bury St Edmunds, Surrey.	B10	SS	1.42	—	M	mag	G
		B15	SS	0.61	—	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
		B50	SS	1.22	—	M	various	D
C. BRIT	C Brit, Unit 3.5 East Lane, Wembley, Middx.	Stingray	AL	1.5	500	B	pole	H
		Whiplash	SS	1.5	25	M	3/8"	C
CT INTERNATIONAL	CT International, CTE (UK) Ltd Unit 3, Mitcham Ind Est, B5 Streatham Rd, Mitcham, Surrey.	MG27	SS	0.91	—	M	mag	C
DIAL-A-MATCH		Rubber Duck	R	0.3	—	M	3/8"	C
		530 (Cherokee)	SS	0.61	—	M	—	F
		631 HBF	SS	0.61	—	M	—	F
		531 SMF	SS	0.61	—	M	—	F
		640	SS	1.22	—	M	—	E
		641 HBF	SS	1.22	—	M	—	E
		641 SMF	SS	1.22	—	M	—	E
620 (Helfbreed)	SS	1.27	—	M	—	C		

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

and stainlesssteel 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

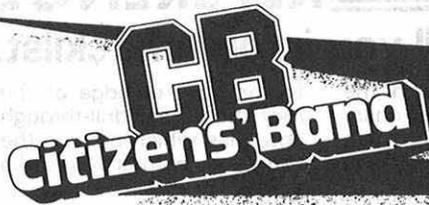
to the boot or edge of the roof. Some are drill-through antennas which are just the same as normal car radio aerials.

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	

CONSTRUCTION	LENGTH	MAX POWER	TYPE	MOUNT	PRICE RANGE
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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	FMUK	SS	1.27	-	M	3/4ths	B
FREEMAN & PARDOW	Fresmen & Pardow, Tything Rd, Arden Forest Ind Est, Alcester Warwick	The Invader The Thunderpole	AL A1	1.5 1.5	250 500	B B	pole pole	E F
K40		K40	SS	1.4	500	M	various	F
CB SERVICES	97, Crab Lane, Harrowgate, N. Yorks HG1 3BQ	Bullwhip Knuckladuster	SS AL	1.5 1.5	- -	M B	various -	C D
MIDWEST		Dial-a-tuna Dial-a-tune	SS SS	0.61 1.22	600 -	M M	various various	C D
MOCOM	Mocom, Moto Communications Ltd, 140 Sandy Lane, Camphill, B'ham	Ravco	SS	1	-	M	various	B
MOTOROLA	Motorole, Taylors Rd, Stotsold, Hitchin, Herts.	EC106M	-	1.5	-	M	-	F
PAN INTERNATIONAL		Pen Mobile 260	SS	1.25	-	M	clamp	-
PANORAMA	Panorama, 73 Wadhvan Rd, London, SW 15 2LS	CB27	-	1.22	-	M	mag	B
PRIDOW		KT40	SS	1.5	-	M	trunk	C
SHIRA		SYS 208M SYS 203C MA 82	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 1.6	- -	B B	clamp tripod	E F
SMC	Oscar, South Midlands Communications, Osborn House, Totton, Southampton, SO4 4DN	Oscar Base CBA 11GP Oscar Base IIVHS Oscar IICM Oscar IICE Oscar IINE Oscar IISE Oscar TMCAS	SS SS SS SS SS SS SS	1.5 1.6 1.2 1.2 1.5 1.5 1	- - - - - - -	B B M M M M M	- - mag foldover base 'pull-up' foldover base 'locking-coller' foldover base trunk	F F D B C C B
SPYDER		Spyder	AL	1.5	-	B	pole	B
TAGRA	Europersonic (UK) Ltd, Britannia Works Building, Sherbourne St, Manchester	T40	SS	1.4	500	M	various	E
THOROBRED	ZL Communications, Cantley, Nr Norwich, Norfolk	261 Z27 Locktune	SS SS SS	1.5 1.5 1.6	- - -	M M M	various 3/4" various	C B C
WITCHSTICK	CJM Motor Factors, Hill Farm Ave, Leasdesan, Watford, Herts. 09273-73648	Witchstick homebase	AL	1.6	-	B	-	E
WTA ELECTRONICS	111 Cromer Rd, Halesdon, Norwich, Norfolk	Wot Pole WotMag	AJ SS	1.5 1.5	- -	B M	pole mag	C C
VANORDT	Van Ord, Knight CB Specialists, 204 Dunstable Rd, Luton, Beds.	Audio King AKO-100	SS	1.5	2000	M	3/4"	G



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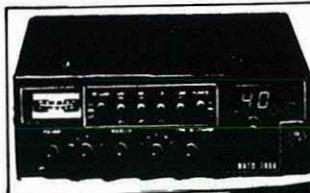
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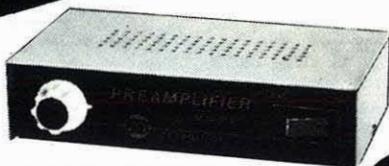


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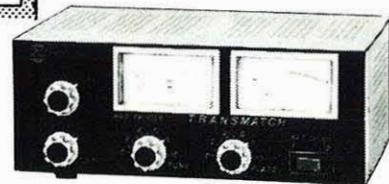
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