

MARCH 1986

AN ARGUS SPECIALIST PUBLICATION

CB Citizens' Band

Britain's Leading Communications Magazine

£1.10



TEST METERS AND TOOLS

The rig doctor's essentials

RUNNING A CB CLUB

Up the organisation

NEW FCC CONVERSION BOARD
A change is gonna come



THUNDERPOLE II & III

Thunderpole Mk II & Mk III from the UK Market leader of the fastest selling high performance legal base station antennae.

The ever popular Mk II

- Base loaded ribbed coil design on a single radiating element 1.5m long. Doubly encapsulated windings for maximum performance and all weather protection.
- Pre-tuned and requiring no S.W.R. adjustment
- Precision machined alloy base with 3 angled ground planes each 2.67m long with cross bracing, designed for maximum performance.
- Power handling 500w, frequency 27mhz, S.W.R. 1:1.5 or less.
- Base for 1 1/4" diameter. Pole mounting.

The Mk III-one step ahead of the rest

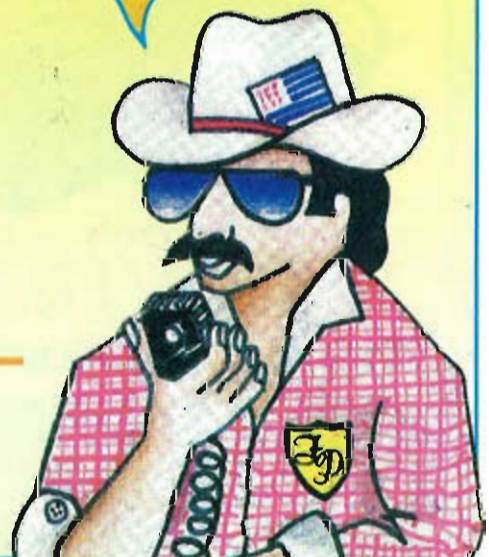
- Centre loaded helically wound coil with low radiation angle. Shrink wrapped for all-weather protection.
- Bigger diameter, radiating element 1.65m long, making the most of the latest H.O. specifications.
- Power handling 500w wide frequency band covering 120 channels, low S.W.R.
- Suitable for all models—AM, FM, SSB.
- Base for 1 1/4" diameter. Pole mounting.

Thunderpole Hatchback/ Boot Mount

No drilling or soldering necessary, standard 3/8" UNF. Thread mounting adjustable angle with positive non-slip action.



THUNDERPOLE
Simply the
Best!



THUNDERPOLE ANTENNA U.K. LTD.,
a subsidiary of Freeman & Pardoe Ltd.,
Tything Road,
Arden Forest Industrial Estate,
ALCESTER, Warks. B49 6ES.
Phone: Alcester (0789) 762673.

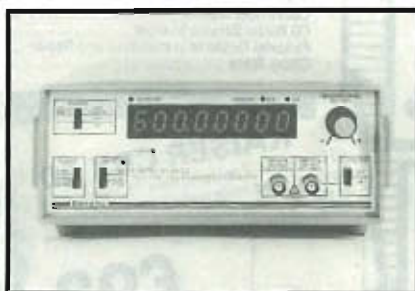
Ask for Thunderpole at your local stockist

THE THUNDERPOLE design and name are registered trade marks of Freeman & Pardoe Ltd.
©Freeman & Pardoe 1984/1985/1986.

CB Citizens' Band

Contents

MARCH 1986 VOLUME 5 NUMBER 4



Inside this month:

Trevor Butler takes a look at the tools and meters essential to the rig doctor's trade.

Editor Eamonn Percival
Group Editor Sue Sharp
Ad Manager Tom Connor
Designer Footprint
Managing Editor Wendy Palmer
Editorial Director. Ron Moulton

Normally published on the third Friday of the month preceding cover date.

Citizens' Band Magazine A.S.P. Ltd., 1, Golden Square, London W1R 3AB. Telephone 01-437 0626. Typesetting and origination by Characters (Reading) Ltd., Reading, Berkshire. Printed by Simpson Drewett and Co. Ltd., 70 Sheen Road, Richmond Surrey. Distribution by Argus Press Sales and Distribution Ltd., 12-1B Paul Street, London EC2A 4JS.

The contents of this publication including all articles, designs, plans, drawings and programs and all copyright and other intellectual property rights therein belong to Argus Specialist Publications Limited. All rights conferred by the Law of Copyright and other intellectual property rights and by virtue of international copyright conventions are specifically reserved to Argus Specialist Publications Limited and any reproduction requires the prior written consent of the Company. ©1985 Argus Specialist Publications Limited.

| | |
|--------------------------------|----|
| Update | 6 |
| News from the CB world | |
| Back Chat | 8 |
| Best of the letters | |
| Q & A | 12 |
| Problems, problems, problems | |
| Mack Chat | 10 |
| Mack moves his station | |
| QSL | 23 |
| Cards, names and addresses | |
| Repro Review | 30 |
| A look at some new accessories | |
| CB at the BBC | 36 |
| Citizens' band on telly | |
| Test Meters and Tools | 34 |
| What the doctor ordered | |
| A Change is Gonna Come | 20 |
| New FCC conversion board | |
| Running a CB Club | 26 |
| Up the organisation | |
| Truckstop | 16 |
| The travels of Big T | |
| Lady Breakers | 19 |
| Filly has an unwelcome guest | |
| Reader Services | 39 |
| Back issues, subscriptions etc | |
| Reference Section | 40 |
| Buyers' guide | |

Prices quoted are those prevailing at press dates and are subject to alteration due to economic conditions. You are advised to telephone prior to ordering or sending money.



TELECOMMS

NEVADA 934 MHz PERSONAL RADIO

We are the UK distributors of this range of equipment - see our advert elsewhere in the magazine.

NEW MODULATOR SUPER SATURN BASE ANTENNA

A legal base ant 54" long (adjustable) with 24" radiators. Outstanding performance from this small antenna.

£28.35

Note:- Free modulator leaflet with every Telecomms catalogue.

CTE F57 5-7 AMP POWER SUPPLY

High quality stabilized supply.



£22.35

INCL. P&P

AMATEUR RADIO PRODUCTS

VHF LINEARS

CTE B110 144 MHz 110 WATT **£169**
 CTE B42 144 MHz 40 WATT **£72**
 ZETAGI LA0545 144 MHz 45 WATT **£78**

£169

MOBILE HF LINEARS

ZETAGI B35 25W AM/FM/SSB **£23.75**
 ZETAGI B150 100W AM/FM/SSB **£49.96**
 ZETAGI B300 200W AM/FM/SSB **£136**
 CTE MOD 737 80W AM/FM/SSB **£42.00**
 CTE MOD 767 150W AM/FM/SSB **£48.00**
 CTE MOD 757 300W AM/FM/SSB **£112.00**
 NEVADA TC35 30W AM/FM/SSB **£23.75**

BASE HF LINEARS

ZETAGI BV131 250W **£106**
 ZETAGI B132 250W **£112**
 CTE DC9 SOLID STATE 150W **£199**

ACCESSORIES

CTE REMOTE CONTROL FOR LINEARS **£9.95**
 MOD 430 SWR METER (120-500 MHz) **£59.95**
 MOD 700 SWR METER (3-500 MHz) **£92.95**
 MOD 500 SWR METER (3-200 MHz) **£44.85**
 MOD 12105 12 AMP POWER SUPPLY **£88.75**

IMPORTANT All HF and VHF linears are intended for use by licenced radio amateurs on approved bands only, they are not legal for use on CB in the UK.

NEW

MARINE ANTENNAS

FROM CTE INTERNATIONAL

Two outstanding marine antennas constructed from fibreglass and toughened nylon. Freq. 26 30 MHz. Power 50 Watts. Length 1.6 Metres.

AZZURA 27

AZZURA 40

£29.95

£37.95



EURASONIC GT868

£39.95

A new low cost transceiver with RF gain, dim control CB/PA switch. Compares with many high priced sets.



NEVADA TC27 RX PRE-AMP

£19.95

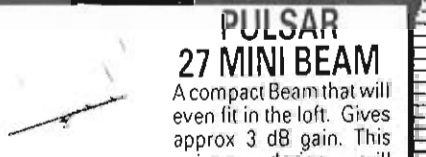
British made high quality pre-amplifier
 - Adjustable Gain - 6 to + 18 Dbs
 - Unique TX Power Feature
 - Fully Guaranteed



PULSAR 27 MINI BEAM

A compact Beam that will even fit in the loft. Gives approx 3 dB gain. This unique design will reduce 'bleed over' from close stations, with side rejection in excess of 20dB.

£39.95



TURNER EXPANDER 500 BASE MIC

This world renown mic offers exceptional 'clarity' and 'crispness' on voice. Transmissions fully adjustable tone and compression controls.

£59.95



SPECIAL OFFERS

FOR MARCH

CTE GP272 3.2 dB base ant. **£14.95**
 Pulsar 27 Mini Beam **£24.50**
 FM Car Radio Booster **£8.50**
 AKD "Vampire" reduces bleedover **£12.50**
 AKD Signal Booster 27mhz Pre-amp **£12.50**
 Zerogi V4 4 Way Switch **£9.50**
 Ham International TW232 S Base Mic **£37.50**
 Sadelita LM20 Throat Microphone **£19.50**
 Zenith ZX4 Remote Mobile Microphone **22.75**
 3 Metre Retractable Mast **13.50**
 Rama Extension Speaker w/noise filter **£8.50**
 Sadelita HM30 Amplified Hand Mlerophone **9.95**

*NEW HANDIC MICMAN

2 Channel portable 27 Mhz radio. INCL. Headset/Mic with Selcall fitted as standard. Ideal for outdoor sports enthusiasts. Send **£139** for details.



BOOKS

CB De-Luxe Log Book **£3.95**
 CB Log Book **99p**
 CB Jargon Book **99p**
 Practical CB Troubleshooting **£2.50**
 CBers SSB Manual **£1.50**
 CB Radio Service Manual **£3.95**
 Pictorial Guide to Installation and Repair **£1.50**
 CBers Bible **£2.95**

KAISER CBX 40

40 Channel Hi-Spec hand held. This is the Rolls as standard, and rugged construction uses handy rubber duck antenna.

£98



SKYLAB BASE ANTENNA

High performance base antenna with a full 1/4 wave radiator handles up to 1 kw of power with a terrific 7 dB's of gain. Provides optimum sensitivity on receive. Our special price **£24.95** inc p&p.



NEW HIGH GAIN ANTENNAS FROM C.T.E. SALIUT 27

3/4 wave Sigma II type base ant. 6.5 dB gain. Length 9.1 mtrs. The highest gain vertical ant. on the market.

£49.95
 (Plus £6 delivery.)



UNIDEN CR 2021 COMMUNICATIONS RECEIVER

This superb receiver covers 150 KHz to 30 MHz 78 MHz to 105 MHz. Features: "Direct" manual scan or memory tuning. "LED" display. "A sleep timer." "AM/FM/SSB/CW" reception (with filter). "With over 25 years involvement in the radio business we can thoroughly recommend this radio to any short wave listener."

£169

ccs.Special Delivery



934 MHz ENTHUSIASTS CATALOGUE

Send in £1 for our special 934 MHz catalogue, and receive a £2 Telecomms voucher. Contains technical info + full details of our product range.

SAME DAY DESPATCH

HOTLINE (0705) 662145

(SUBJECT TO AVAILABILITY)

TELEX: 869107 TELCOM G

THE U.K.'S LEADING C.B. DISTRIBUTOR

ALL ITEMS ARE AVAILABLE FROM OUR AUTHORISED DEALERS THROUGHOUT THE U.K. - OR DIRECT

CTE FD 1350 1.3 GHz FREQ. COUNTER

For the technically minded this counter is ideal for both 27Mhz and 934 Mhz use

£159

HIGH RESOLUTION

12 VOLT OPERATION



ALTAI DM315E Hand Echo Mic

With the echo control sensibly adjusted this mic adds power and clarity to any transceiver.

£27.95



SADELTA EC980 ECHO UNIT

You can now have the famous Sadelta Hi-quality echo sound on any mic of your choice.

£49.95



SADELTA "BRAVO PLUS" Base Microphone

Definitely the last word in base power microphones. This new microphone incorporates a unique processing circuit to give 'crisp' and 'punchy' audio that will cut through the hash and make your signal stand out in the crowd!

* Switchable Roger Beep.

£39.95

JUST ARRIVED



UNIACE MOBILE RADIOS

Manufactured by Uniden Corp. Japan.

£89.95

UNIACE 200

Each set is supplied with a full specification certificate from our Service Dept. before despatch.

£69.95 UNIACE 100



SADELTA ECHO MASTER PLUS Base Microphone

An exciting new base microphone from Sadelta offering many new features. Together with their mellow but powerful echo Sadelta are famous for, they now offer a dual tone Roger Beep, adjustable reverb and echo, improved switching and internal 9 volt battery supply. A microphone which is guaranteed to make your rig sound like a million dollars.

£59.95



CYBERNET BETA 3000

These Beta 3000's were specially labelled for Ford, and are being sold as the Ford "ROADMASTER 505".

£79.95

SCOOP PURCHASE



Tm 27 ANTENNA MATCHER

£10.95 (100 WATT)

Tc2 2 WAY ANT SWITCH

£6.50 (200 WATT)

NEW HIGH QUALITY BRITISH MADE



SSE EXTENSION 'S' METER

A clear accurate signal/power meter which may be used on any make of 27 Mhz transceiver (with wiring diagram). Designed to plug directly into the Cybernet Delta 1934Mhz transceiver.

£19.95



PLP1 LOW PASS TVI FILTER

(200 WATT) **£6.81**



UNIACE 300 BASE STATION

One of the finest base stations made for the UK. Each set is supplied with a full specification certificate from our service dept after individual pre-delivery checks.

£169



SPACE LAB 27

1/2 wave hi-gain base ant. 5.3 dB gain length 8.6 mtrs. High gain from a more modest length ant.

£39.95 (Plus £6 delivery)

MINI GP127 LOFT ANTENNA

An extremely efficient ant. Complete with loaded ground planes - suitable as a loft or outdoor mounted antenna.

£19.95 (Plus £3.00 delivery)

NEW



NEVADA TC27 RXM 27 MHz RX Pre-Amp

This is an extremely low noise amp with over 20 dB's of gain - designed to boost reception on even the best rigs!

£17.95

NEW BRITISH MADE



MAXCOMM 30E

A top of the range set with many additional features, and a good receiver section.

£69



RADIOTECHNIC RT852

An exciting new set from Radiotechnic featuring a new squelch design that combines both noise level and carrier level control; extremely low cross modulation; superior sensitivity; improved mixer and filter design a set we can thoroughly recommend.

£69.95



maxcom 7E

£69

MAXCOM 7E Handheld/Emergency Pack

A 4 watt handheld complete with carrying case, magnetic ant., car power lead. Will run from your car or as a portable on its internal batteries.



THE 1986 CATALOGUES

Dear Valuer,

It would be impossible to do justice to our entire range of products in just two pages, our 1986 27MHz catalogue does it much better. Packed full of pictures and technical information it is a must for any serious enthusiast. Why not send off £1 for your copy today. Also during this month we are including a full colour catalogue from Zetagi or CTE absolutely free!



Thousands of breakers have already discovered the speed and efficiency of our mail order team. Helen, Shirley and John pride themselves in giving unparalleled service - no 28 days waiting here, every order is dealt with SAME DAY - and quite rightly!

With the backing of one of the most extensively equipped service departments in the UK you can purchase from us with the assurance that problems should they arise will be dealt with promptly by professionals. Incidentally they can offer full rig checks and repairs at very reasonable rates.

We've become the biggest by being the best with over 200 approved dealers around the U.K. - so why not write to us today and get on the Telemoms Wavelength too?

Yours sincerely,

M. Revereux
MANAGING DIRECTOR

USE YOUR CREDIT CARD FOR IMMEDIATE DESPATCH

TELECOMMS, 189 LONDON ROAD, PORTSMOUTH, HANTS PO2 9AE





NEWS FROM THE WORLD OF CB

NEWS FROM THE WORLD OF CB

NEWS FROM THE WORLD

UPDATE

Editorial

At the time of writing, we have just witnessed heavy snow, gale force wind and torrential rain — all in less than seven days. On each occasion, I was unfortunate enough to be out on the road at the time. In my area, we had square-wheeled traffic and fender benders galore. All in all, conditions were unfavourable, to say the least. I am pleased to say, however, that local breakers were on their best behaviour and calls for directions and road conditions brought sensible and helpful responses. Where had all the wallies gone, I wondered? Knowing their mentality, they were probably out making snowmen. My

point is that it is a depressing state of affairs when one finds oneself *surprised* that people are acting sensibly on the airwaves. I know it can't have been like that all over the country, I'm sorry to say.

Talking of wallies, after numerous requests we shall be publishing a list of Radio Investigation Officers' addresses in the next issue, so if you are plagued by the foul-mouthed brigade and you are armed with names or locations, let the lads know.

Right, this month's issue looks at the rig doctor's tools of the trade in a special feature on meters, 'scopes etc. Keith Townsend, as usual, has been extra-busy; he reports on a group of breakers helping out the

Beeb's Children In Need Appeal, and, elsewhere, he explains the running of a successful CB club.

Anyone out there eagerly awaiting the change to the FCC frequencies next year? Well, just for you, we review one of the first conversion boards available — *but* we don't advise you use it yet!

Last, but certainly not least, we hope to see you at one of the biggest CB events of the year. Namely, the 1986 CB & Radio Big Meeting on Sunday 27th April at the Stanley Youth Centre, Stanley, Co Durham. It is being organised by four separate CB groups and should be a huge success.

Eamonn Percival

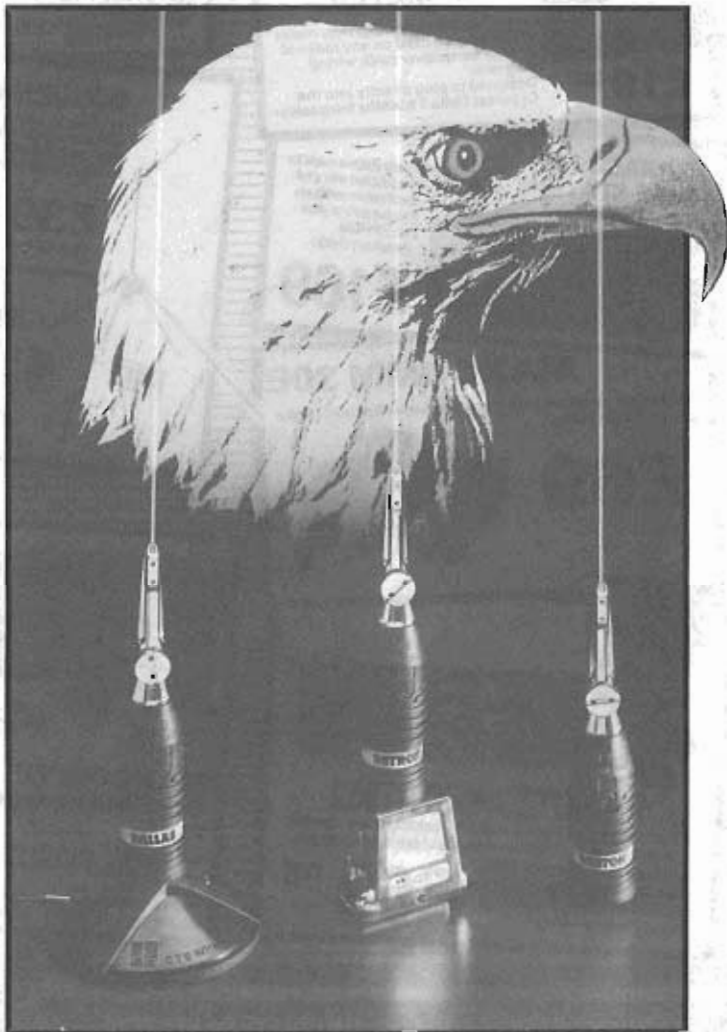
CTE From Telecomms

Telecomms recently announced that they are now operating as both the UK office and distribution point for CTE International, not only aiding them with the design and development of new products for 27MHz CB, but also working with them to market their professional range of broadcast and test equipment.

CTE International are one of Europe's largest CB and associated manufacturers with an annual turnover in excess of £14 million. Telecomms now carry a full range of spares for all CTE products and will be pleased to help with any technical advice or problems on any CTE products — even if purchased prior to Telecomms taking over the distribution.

The new "American" range of mobile antennas has just been launched. Based on the Avanti style of aerial that was so popular a few years ago, they feature a fully adjustable whip section and are made to fit a variety of bases. The range comprises the Texas (£11.90), the Florida (£12.94), the California (£12.99), the Oregon (£13.50), the Dallas (£14.90), the Detroit (£15.90) and the Boston (£16.90).

Telecomms are also now marketing the new CTE low-cost spectrum analyser and a range of UHF broadcast transmitters.



More Cellular Jamming

The Yorkshire Evening Post recently carried a news story about 934 users suffering jamming from BT's cellular radio system. In the Leeds area, business and professional people's telephone conversations are coming through loud and clear on local 934 stations. Entire

conversations, clinching deals, discussing business tactics and even family crises are being picked up.

Many 934 operators have taped hours of these conversations but the Department of Trade and Industry is reported to have said: "The system is designed so that this kind of

thing cannot happen."

An Armley man said. "I paid £455 for my set but I can't switch it on without being drowned out by telephone calls. It has got to the point in Leeds where we find it virtually impossible to use the 934 band because we are being jammed all the time by cellular radio."

Another 934 user, who helped make recordings, said: "Our national 934 club has made protests to the DTI about this but is being ignored. We have the proof on tape that highly confidential conversations are smothering our broadcasts. The DTI should do something about it."

Talisman Appeal

It is with great sadness that we report the death of Talisman (Noel), chairman of Walton and Weybridge Elie Breakers Club, after a massive heart attack. Noel had about 40 operations and eventually lost both legs through having a rare disease of the circulatory system called Buerger's Disease.

The disease strikes only those between the ages of 20 and 35 years of age, and it is believed that fewer than 50 people in the country suffer from it. Noel, although in pain, was never one to complain as he always put others first.

Noel put in a lot of time and patience running the club and managed to raise funds for three nebulizers (breathing machines) and cash for the Princess Alice Hospice. His widow, Wendy (Californian Poppy), as well as acting as chairlady for the club, is also organising an appeal called the Talisman Buerger's Appeal.

If anyone would like to keep Noel's memory alive and help others who suffer from the disease, any donations will be gratefully received by any branch of the Abbey National. Cheques or postal orders should be made out to the Talisman Buerger's Appeal on account number R10968593PAR.

Man Bites Dog?

Thieves climbed onto the roof of a post office in Weston Turville, Buckinghamshire, recently and stole a CB antenna worth £40. The antenna belonged to Mrs Joan Pippard of the post office. Could it be someone trying to get their own back on Busby?

Pirate Snooping Stops

The Department of Trade and Industry's surveillance on pirate radio ships was halted on December 13th when the Radio Investigation Service withdrew. The exercise was described by Geoffrey Pattie, Minister of State, as "very successful". He added that the fact that Laser 558 had stopped broadcasting was an added bonus, and he hoped

that Radio Caroline, who quickly adopted the wavelength after Laser went off the air, would follow suit and cease broadcasting.

The monitoring began at the beginning of August and it has been revealed that evidence concerning a number of possible offences has been passed to UK and continental police, although decisions on prosecution of

UK nationals and residents rest with the Director of Public Prosecutions.

The DTI were quick to point out that, although they have, for the time being, stopped surveillance, they are still concerned about the pirate transmissions and, in particular, any interference to helicopter beacons in the North Sea.

DIY Power Supply

Our article on power supplies in the January 1986 issue seems to have caused a bit of confusion. The feature was not intended to be a step-by-step constructional article, but rather the author's thoughts on the considerations and problems

involved in designing and building his own psu. This explains the absence of a components list and fully detailed circuit diagram.

Because of these omissions, we recommend that the diagram is not used to construct a power supply — those that have tried will

have realised that there isn't sufficient information. We are sorry if any readers were misled by the article and, to make it up to home constructors, we will have an instructional step-by-step project on building a power supply in the near future.

CB Sea Rescue

Three men stranded at sea were rescued recently, thanks to the efforts of housewife Marjorie Ovington and her son's CB rig. Marjorie (Cryptic Queen), from Stanley, Co Durham, was chatting to friends on CB when she picked up an SOS from a

man whose boat had broken down, half a mile out of the River Tyne.

Marjorie immediately contacted the marine police who sent out a craft to tow in the stranded boat and its three crew members.

Sgt John Mitchell, based at Britain's only coastal patrol

training centre at Gateshead, praised Mrs Ovington for her prompt action and said: "She acted responsibly by getting in touch with the police. Under other circumstances, she could well have saved lives but, as it happened, the weather was not too bad."

Natcolcibar Change

Mrs Peggy Tapper has written to us, asking us to inform readers that the official address of Natcolcibar is now: 38 Amroth Walk, St Dials, Cwmbran, Gwent NP44 4NQ. Mrs Tapper is administrative

secretary for the organisation and vice president of the European CB Federation and would be pleased to hear from any clubs or individuals, either past members or anyone interested in CB and its future. She tells us that

Natcolcibar are still fighting for AM/FM/SSB on the FCC frequencies and that they are determined to ensure that when the CEPT frequencies are introduced, the present legal system is not withdrawn.

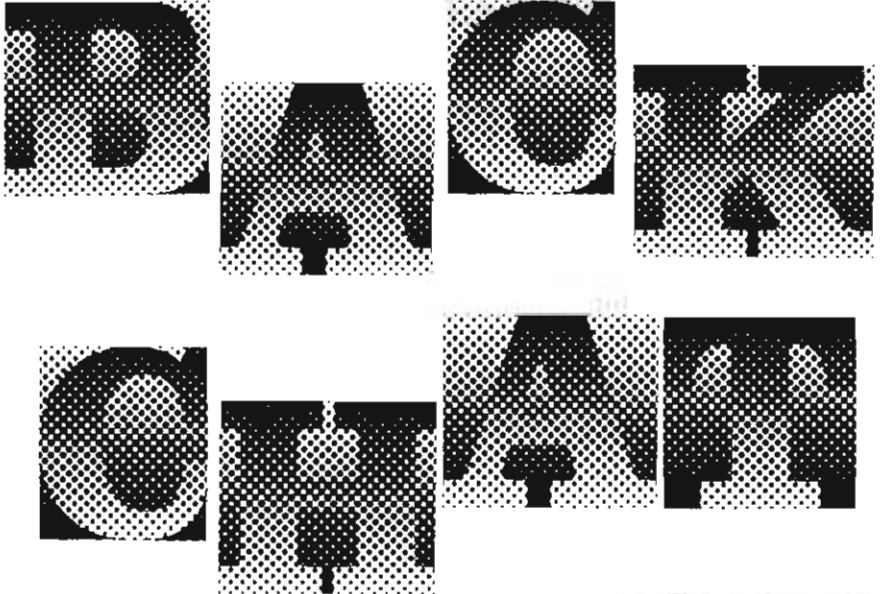
Cree Valley Mass Eyeball

The Cree Valley Breakers Club will be holding their annual Mass Eyeball this year at Auchenlarie Holiday Farm, Gatehouse of Fleet, from

Friday 2nd May to Sunday 4th May.

Four, five, six and seven-berth caravans are available for hire, fully equipped (except for linen) at £12 per night. Sites for caravans and tents

cost £3.50 per night, and trade stands are welcome. Anyone interested should send a SAE to Mass Eyeball, PO Box 1, Wigtown, Scotland DG8 9HA.



More thoughts and opinions from readers

Kent Coast Monitors Reply

More on the Natcolcibar story, this time from Kent Coast Monitors . . .

We have read the article in the January issue of "CB Magazine" headed "Attack on Natcolcibar".

At the outset, we would like to make it clear that we had no knowledge this item was going to appear, nor were we consulted for permission to use the names of David Harding, Ken Forward and Kent Coast Monitors. Whilst the opinions expressed therein are undeniably ours, and are an honest assessment of what we observed over a period of time, it was not our wish that they should be made public. We do not indulge in mud-slinging and it was never our intention to launch a "blistering attack" on an organisation to which we still belong.

Presented in the form your readers saw it, it would certainly seem that way. They may therefore be surprised to know that the comments were made by five different people over the course of quite a long period of time. They appeared in reports which are put out to the KCM members after each Natcolcibar meeting. Your correspondent is one of our monitors and so would have received these reports. Taken singly, and bearing in mind that they were intended for those contributing to the annual subscription, the remarks might be considered fair comment. Grouped together as they were, and taken out of context, a different impression is created to that which was originally intended.

We appreciate that you have a duty to pass on to your readers any news and opinions relevant to CB, and from this standpoint we cannot fault you. But we would be glad if you could publish this letter so that your readers can be aware that we did not intend any "attack" on Natcolcibar and regret

that our name has been associated so prominently with opinions that are held not only by ourselves.

We would add that Natcolcibar now has a new Chairman (the fourth in twelve months) in the person of Brian Babbington from Rugby. We hope that, even at this late stage, he will be able to unite the membership and persuade them to pull together for the good of CB as a whole.

Business CB

LE3, a police officer, writes from Essex about CB for business use . . .

As a serving Police Officer I must take two of your correspondents to task in respect of letters published in the December 1985 issue.

Firstly, Worzel of Nottingham, in connection with CB being used for business purposes. I would suggest that he obtains an up-to-date licence as the information that he quotes from has not been on licences since 1983, and the corrected clause reads "12. The apparatus shall not be used for the purpose of advertising goods or services of any kind." The operative word being advertising. So long as the firm do not advertise in any way, they are committing no offence under the licence conditions, and are entitled to use the system as is any licenced operator, as a result we in South West Essex have to put up with a taxi service in Swanley, Kent on channel 9 with no recourse at law.

Secondly Mr M Wright's letter and his argument that CB does not cause interference to vital services. Mr Wright, I and many other police officers can assure you that CB does interfere a great deal with the emergency services' frequencies to such an extent that my own force has to close down two, sometimes three, channels a day because of CB interference, and as a result the additional traffic on the remaining channels causes a back-log in transmission times. It has been so bad of late that one county force has requested monitors like myself to

attempt to identify the interference to request the operators to move frequency. I am happy to say that those operators, when informed of the situation, cleared the frequency forthwith and on a couple of occasions asked for information on how they could prevent it happening again. As a result of this interference, CB radio has a bad name with a lot of police officers, and those of us into the hobby have an uphill struggle to convince them that there is a lot of good in the hobby.

Natcolcibar Replies

Mrs Peggy Tapper, the administrative secretary for Natcolcibar and vice-president of the European CB Federation, replies to a news story carried in the January issue . . .

With regard to your "Attack on Natcolcibar" in the January 1986 issue of your magazine, I would like to make several points.

Firstly, why is it that, although I sent a report of the Natcolcibar AGM held in Macclesfield in October, you saw fit to ignore that, but print such an inaccurate article as the one mentioned?

First of all, the "Blueprint for CB" that you refer to was not deferred for 18 months; it was only submitted to the members shortly prior to the Natcolcibar meeting in July 1985 — and was discussed in part at *that* meeting, but there were so many points in it that the members objected to and took offence at, that it was decided to leave it until the AGM at Macclesfield. At *that* meeting, the delegates of Kent Coast Monitors asked for it to be left until the November meeting as they had a train to catch. As they were not at the November meeting, it was not felt possible to deal with a document when the originators were not present.

As for the KCM delegates supposed remarks that the highlight of the day was the journey home, perhaps if they had taken part in the meeting properly, instead of abstaining on every matter that arose, they might have seen more

purpose in the meeting. As it was an AGM what did they expect to happen?

I note that "council meetings dissolved into aimless waffle and shouting matches" — perhaps, to KCM, anything that does not concern Channel 9 directly *is* aimless waffle; but I can assure you that there are a lot more matters to be dealt with than just Channel 9, important though this is. Channel 19 and the work the trucking monitors do throughout the British Isles is also vitally important, but rarely gets a mention of praise.

You have, I think, made a misprint when you state that KCM covers most of the "country" — I think you mean "county". There are other monitoring organisations that have been in existence for as long as — if not longer than — KCM, including RAD (Rescue Aid and Distress) in the Rhondda valleys of South Wales, who do not seek to impose *their* will on others but who do just as important a job as KCM.

As for their hoping to bring "their sobering influence to bear on the council", there must be a crossed line somewhere here! I, personally, have seen no sign of this at any of the few meetings that delegates of KCM have attended. They only have attended the meetings that were held within a short distance of Kent — any distant meetings were deemed to be outside their range.

This is one of the reasons why Natcolcibar have decided to consider having a centralised venue — the January meeting was designated as an EGM at the time of the AGM in October to discuss and decide on this matter.

It is personal grudges that result in articles such as that you printed, and they do *nothing* for the cause of CB in this country. Natcolcibar is still a force to be reckoned with, despite the problems of the past year; and it still has many supporters.

Hurray for Handhelds

Buffalo Bill from Merseyside has been getting some good copies from a handheld . . .

I read with great interest your report on handhelds in the November issue so I thought I would tell you about my experience with the Maxcom 7E using a 12v dry cell rechargeable battery.

Up until six months ago, I lived in Hoylake and was using a homebase. Moving to my present address in New Brighton, I got myself a Maxcom 7E so that when I was in Hoylake or West Kirby I could keep in touch with my CB friends. However, I seem to be copying much further afield on my walkabouts in that part of the area. One Saturday in October last year, I was in a network and managed to copy Soldier Boy in the Isle of Man from West Kirby prom which is about 70 miles. I got into his station on a Radio 3. I know the signal went across water but, considering the stations were 70 miles apart and I was using a handheld, I think it was a pretty good copy! I forwarded a QSL card and am waiting for a return.

A couple of months ago, I got into a



Buffalo Bill is getting good results from his Maxcom

24-hour sponsored marathon from my station in West Kirby prom to their station which was based overlooking the Vale of Llangollen, 27 miles away (7 miles down the River Dee and then 20 miles overland). The breaker who brought me in said, "When you send in your QSL please state that you are using a handheld because they will never believe me!"

I have also copied the Mike Whisky 05 station who was mobile at the time in Bala, North Wales — 37 miles away. This is just a few of the exceptional copies I have had. I have made a lot of friends from good copies, having been on the air for six years. Just for the record, when I take a homebase breaker to a channel, I always ask him or her what the channel is like at their end, as I know that they can sometimes pick up signals I cannot hear. I hope that you get lots of letters from breakers who use handhelds to see what results they get from their sets. By the way, I have not yet tried the magmount supplied with the set. The set was brand new when I bought it and nothing has been done to it. I always say 'leave well enough alone', and use the standard twig on the set.

Keep 19 Free

Brandybird, from Coventry, makes a heartfelt plea to keep channel 19 clear for truckers . . .

As a fan of channel 19, I would like to make a desperate plea on behalf of all the mobile CBers who use this channel all over the country. We are (at the time of writing) in the depths of winter, possibly the worst parts with blankets of fog and black ice creating havoc on our roads and motorways. Channel 19 is used by all and sundry as a "breaking channel" from one homebase to another, completely regardless of what else might be going on on that channel.

From good manners, inbred into most of us, the majority of us treat CB as though we were talking face to face. We know channel 9 is the emergency channel (albeit unofficially) so please leave that channel to those usually trained and willing to monitor 9. The majority of us leave channel 9 alone, so why not other channels?

Channel 19 is a 'mobile channel' set aside (again unofficially) for those using our roads and motorways. Fair enough, most of the time, it is used by truckers chatting to each other or passing the time of day with the many women who monitor 19. The drivers themselves will tell you there is nothing better to break the monotony of a long day's driving than to have a good 'sexy' chat to a female. It keeps them awake.

But then comes the important part. These drivers check with each other, or with the many homebase control points, about the condition of the roads in front of them, weather conditions, roadworks, blockages etc. This may seem extremely boring to those sat in the warm at home but it could mean time — or even lives — saved to those drivers. They ask for a 10-13 and someone, somewhere tries to answer them, but all the drivers hear is the monotonous, continuous drone of "One-nine for a copy. . . roger. . . rig check. . . 10-36. . .", completely blocking the channel.

Let's be fair about it, homebases want to — and surely are entitled to — call other homebases on 19. I'm not saying that they shouldn't. All that I'm asking is that they use the sense they were born with, and the manners they should have been taught. Before you start talking, *listen* for a while first and if there is an important message being passed, keep quiet for a few minutes until the message gets through. Especially when you hear reports of fender-benders, heavy metal and square-wheeled traffic.

There was a saying during the last war, "Careless talk costs lives". It is as relevant today on channel 19 as it was during the war so, please, think first.

I recently heard of a lorry driver who had been shouting for 10-13s for several miles and just couldn't hear any replies. All he heard was some fool trying to sell a CB (illegal in itself) and two women holding a long conversation. He continued his journey only to smash into the back of another lorry during a hold-up, seriously injuring himself and killing his young son. It is easy to say that if he hadn't got a CB he wouldn't have known anyway, but the point is that he *did* have a CB, he was trying to use it and was prevented by thoughtless idiots. His son could possibly still be alive if he had heard the warnings about square-wheeled traffic.

Anyone got a guilty conscience yet? Let's be honest, we've all done it. We have all blocked a channel without thinking and, with the speed of today's traffic, every second counts for drivers to receive and act upon information received. So, please remember, think first, listen, and let those important messages get through. It could quite easily be a member of *your* family whose life is put at risk because of "careless talk".

Letters should be addressed to: Back Chat, Citizens' Band, 1 Golden Square, London W1R 3AB

Mack Chat

Mack the Hack moves his station on instructions from 'er indoors



“I want this lot out of here”, said she, sweeping her arm around the room. “Do what?” I replied, astounded, as her attention was focussed on my radio and computer equipment. “I think it’s about time that we turned this back into our bedroom and if you are very good I’ll let you decorate it”, I was told. Of course my dear wife was right, as our sleeping quarters had, over the years, been taken over by my ‘junk’ and I suppose it’s not really on to invite one’s pals and occasional visitors into one’s bedroom to view or operate certain bits of equipment especially when one’s wife is in bed! Oh yes, it has been done.

“So where do I put my treasures?” I asked her. “You can have part of the dining room if you can find a space”, I was told. Although we call it the dining room and it does feature a table, chairs and sideboard, we have not dined in there for years. The dining room also contains a dartboard on the wall, freezer, sewing machine and a bicycle that, no matter how hard you pedal, never goes anywhere. Also in one corner was an old black and white TV that was on its last legs and hi-fi equipment also in the same state. I decided that I would clear out that corner and my new radio station would be situated there.

Dimensions

Out came the tape measure and dimensions were taken. After a trip to the local DIY superstore, I returned with the necessary materials to construct the work surface to fit into the corner. The old hi-fi unit fitted nicely under part of the worktop and, with extra shelves fitted, made valuable storage space. Under the remaining part of the worktop an old chest of draws is used for more storage. In the corner, on top of the worktop is a TV-come-monitor for the computer (a Spectrum) on the right of the TV. On the left are my radios. That also gives

me enough space for my writing or any repairs or construction work that I might want to carry out.

Above all this, shelves were fitted for books and other homeless bits of radio equipment. For my added comfort, a second hand office swivel-chair was purchased. The worst job was re-routing the antenna cables. Fortunately, many of the cables could now be shortened which surely must be a good thing for the 934MHz, if only for the extra power that can reach the antennas now due to the reduced length of coax.

The advantage of the relocation is that I can now creep down in the early hours or even stay up late to play on the radio without disturbing the rest of the family. As for our bedroom, it once more looks like one, but the open spaces where my radio and other hobby bits used to be take some getting used to. I did suggest putting in a pool table but all I got was a thump for my effort!

For some time now, I have promised the lads at Truck King’s that I would pay them a visit. “Come and see a real CB shop,” they kept telling me. Hearing that they had a three-day sale just after Christmas, I took myself to Garston. The shop itself is not large but that does not seem to matter, as it carries a super range of goods. I am sure many of you realise that there are very few CB shops around these days and some of the owners of these know this and their prices are none-too-cheap. Unlike many shops, I found Truck King prices very reasonable. Just check their adverts in this mag. I have been told that some people from many parts of the country make club trips to Truck King which I can now well believe.

Whilst I was visiting the shop I found myself searching amongst the goodies and finding some rare items that I thought were no longer available. Roger bleeps and other such gadgets have never really been my cup of tea, even echo mikes or boxes I believed unnecessary. However, I was recently given a demonstration by a distant station how effective a good echo chamber can be and since then I

promised myself that I would obtain one. At the Truck King sale I saw and purchased an ES-880 at the sale price of £42 I thought it was a bargain not to be missed. I must thank the lads at Truck King for an enjoyable and enlightening couple of hours spent at their *real* CB shop.

I’m a little bit scared to mention the following, in case it wakes them up again but have you noticed how quiet the channels are these days? Yes, I know that there are still a few of the nauses around but I live just on the outskirts of London and some evenings recently I have managed to enjoy a waffle with other stations across the town. The early morning weekend networks seem to continue later into the mornings. This Christmas did not, it seems, bring many new people on the CB frequency, so I will keep my fingers crossed and pray that the peace on the 27 continues and is not just a figment of my imagination.

Rumour

There is a rumour that another 934 rig could soon be seen on the market. This time it is a portable handheld unit. The brochure of this rig I saw shows it as an 80-channel transceiver, but this is for the Swiss market. We in this country would only see a 20-channel version. Also, from what I have been told, the power pack for this radio is detachable with alternative rechargeable packs available. The price is quoted at 1250 Swiss francs and that, in our money, is around £400 (ouch!) Will it sell if it becomes available? Yes, I expect a few people might be tempted but I confess I would not. The reason? Because, at the present time, my 934 radio is almost unuseable because of the cellular radio interference. It is still possible to communicate with a few local stations but even at times they get swamped with the tones or speech of the cellular radio. At the present time, nothing has been done to cure the problem and I get the impression that nobody seems to care, except 934 users.

A New Addition to the T-Bolt Family...

You've seen the neat little T-Bolt,

You've seen the high performance
super T-Bolt and read its superb
test-report.

And now, the Modulator People
offer the ultimate in the T-Bolt
range...

The Super T-Bolt Colinear

This antenna has quality,
reliability and looks as
good as it performs.

You'll be surprised
at the price too!

Another Winner
from the
'MODULATOR'
people

**Les Wallen
Manufacturing Ltd.,**
Pembroke Works,
Ramsgate Road,
Sandwich, Kent CT13 9NW.
Telephone: (0304) 614598

Trade Enquiries Welcome.



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

Smart Alec tackles some more readers' problems

Computer Interference

Ian Harrison, from Sedgwick, Cumbria, has an all too common problem . . .

Q When my Spectrum computer is turned on, a signal is transmitted onto my Realistic 2001 rig and shows a reading of S7 on channel 39 and S2-3 on all other channels. I have tried taking the aerial lead out of the computer but it made absolutely no difference, from which it would appear that the computer is on a frequency very close to that of my CB rig. I am surprised that the signal can reach my CB antenna, since it is on the roof of the house, whilst the computer is in a downstairs room. Please can you help?

A *If I had an easy answer to this one, Ian, I could make my fortune. Computers are, unfortunately a major source of interference to nearby radio receivers and I long ago resigned myself to the fact that I was unable to run any of my radios when my computer was in use.*

It is doubtful whether the inter-

ference is entering the rig via the antenna. A far more likely explanation is that the RF is going direct from the computer or its leads to the circuitry of your rig. The Spectrum is neither better nor worse in this respect than any other computer, insofar as it uses two basic crystal frequencies, 1.8MHz and 14MHz, from which are developed a number of signals on other frequencies and, in any case, the entire problem really stems from the fact that even when a computer appears inactive it is far from idle.

Dependant upon its internal programming, the computer fires an "interrupt" every sixtieth or one-hundredth of a second, the purpose of which is to check whether any action has been carried out within that time and whether, as a result, it should update the display.

I am afraid that the only real cure is somewhat drastic and therefore impractical. It is to encase the entire computer in a lead box and even that would not necessarily cure the interference unless the computer leads were similarly shielded.

Problems should be sent to:
CB Q&A, Citizens' Band,
1, Golden Square,
London W1R 3AB



Ian Harrison is suffering computer interference.

Datsun Dilemma

Charles Trippet, from East Looe, Cornwall, is suffering from reception interference . . .

Q I have owned my present Datsun Cherry from new. It has a factory fitted AM pushbutton radio, covering the long and medium wavebands, on which reception is invariably perfect.

I have fitted a Cybernet Beta 2000 under the dash, in place of the ashtray and connected it to a magmounted Tagra T40 antenna. Power is taken from the adjacent cigar lighter socket.

I am told that my transmissions are clear, with no sign of interference or distortion, regardless of whether or not the engine is running but the same can only be said of incoming signals when the engine is switched off. With it running I experience a 'motor-boating' effect, which varies according to the engine speed and severely distorts incoming speech.

Enquiries made locally and over the air have offered no solution and I have been told that it is simply something which I shall have to suffer. It is obviously an ignition based problem

and I would appreciate any suggestions which might help to alleviate it.

A Firstly, Mr Trippett, I must disagree most strongly with those who claim that you must just accept this annoyance, since there are a number of steps which you can take to affect a cure. The first is to throw away that cigar lighter plug and find a means of tapping into the car's own circuitry. Feeding from a cigar lighter offers innumerable opportunities for electro-magnetic currents generated under the bonnet to find their way onto your receiver. The ideal answer to this point is to run a screened cable direct from the battery to the rig, thus eliminating the many connections and crossing points within the car wiring which can give rise to interference.

Moving the antenna further from the engine might also help, simply by placing it further away from the engine's magnetic field, though replacing the mag-mount with a gutter or boot-mounting will improve the earth connection and almost certainly improve matters.

Your description of the rising and falling nature of the interference tends to make me suspect that the real culprit is not the ignition circuitry but the alternator, interference from which commonly takes the form of a whine which rises in pitch as revs increase, as the result of arcing at the slip-rings, although, in the majority of such cases, transmission is also affected, or, perhaps, an electric petrol pump. In either case this is easily cured by fitting a small filter, obtainable from any reputable auto electrical supplier, to the live contact.

Yet More on Co-phasing

In Colchester, Essex, Big Brother has been musing on antenna characteristics . . .

Q I am the proud owner of a Modulator Expert antenna, which is mounted on the roof and which gives me a working range well in excess of 15 miles. I would value your opinion on the feasibility of co-phasing a similar antenna with it. For instance, would local breakers experience bleedover from the array, using the permitted 4 watts?

What would happen if I occasionally switched one of the antennae out of circuit? Would the unused aerial affect the radiation pattern of the one I was using? Finally please can you tell me whether a half-wave antenna has any gain over a quarter wave?

A The entire purpose of co-phasing a pair of antennae is to increase the amount of radiation in a fore and aft configuration, so the first effect you would notice would be a sort of oval pattern, in which your range to either side would be well below that achievable ahead and behind. It is important that you use a proper phasing harness, otherwise you will create a significant impedance mismatch, which would severely reduce your performance.

There is absolutely no advantage to this form of installation unless the antennae are sited at least a half-wavelength apart, since anything less will distort their radiation pattern and, although I can find no-one who has tried switching one of a pair in and out of circuit, I am inclined to believe that to do so would require a second feeder cable to the one which you intend to use at all times, since any attempt at bypassing part of the harness might result in a mismatch of disastrous proportions but, provided they are far enough apart, the antenna not in use is unlikely to affect the one you are using.

You will not cause bleedover to any of your neighbours, since this form of interference does not result from antenna installation but you may well get complaints of swamping from stations in the locality, as your effective radiated power will have increased. You might also find that you are causing TVI where none had previously occurred.

Mathematically a half-wave antenna exhibits some 3dB gain over a quarter-wave, which is roughly equivalent to twice the e.r.p. but a half wave has a nominal impedance in the region of 75 ohms, which drastically reduces the effective improvement and also offers a greater likelihood of interference to other services.

Antenna Interaction

R. Busby, Delta 7, wants to know the likely effects of running both CB bands from his Croydon home . . .

Q I have been on channel for about eight months and am currently running a 27MHz radio on a Thunderpole Mk 2 aerial. I would also like to use 934MHz but am worried about what might happen if I run both aerials mounted on the same wall and both sets in the same room. For instance, can I expect to experience bleedover between the radios?

In the event that my suggestion is practical, please can you advise me as to what type of 934MHz aerial would be suitable?

A You need not worry, Mr Busby. You can run both the radios and the aerials as close together as you like, their operating frequencies are so far apart that they will be entirely unable to detect each others' signals, no matter what the working conditions. Many operators have successfully mounted both rigs in the same car without any problem, so you should have no difficulty in your home.

The question of the right antenna for 934MHz is very subjective. For the best all-round results an omnidirectional vertical antenna of up to four elements is desirable but if you are looking to direct the majority of your signal toward the station you are working at the time, you might like to consider mounting a beam antenna on one of the smaller rotators which are available. Although this will slightly increase your initial outlay, the results should be well worthwhile. The only draw-

back to this form of installation is the fact that you will be unable to hear other stations who may be calling you from directions on either side of the antenna's present heading.

Why No SSB?

Tim, a regular correspondent to the magazine voices a question...

As a reader of your magazine for the past few years, I would like to talk about an aspect of CB very rarely discussed in your pages. For three years I have been an active SSB operator and I am a member of the Alpha Tango International DX Group, which has several thousand members worldwide with about 600 members in the U.K.

I would like to see in your magazine articles on SSB and propagation. These articles were in magazines around 1980-81 and were very interesting but since legalisation I haven't seen anything concerning this aspect of CB. After all, SSB operators are the most sensible and courteous of the CB operators. I think we deserve something from your magazine too. There are hundreds and thousands of us out here and get nothing from your magazine.

I and many other operators would contribute our part to any articles you wish to write — how about the European contest which is for SSB users on 27MHz — this year 2,000 CBers entered, I bet you didn't know that! Please let's see some more SSB stuff in the magazine. I promise it will sell like hot cakes!

Tim asked for a personal reply, but we printed the letter so that we could reply to other people that have asked similar questions. Right, here we go; 1. We could be in a tricky position legally in writing about SSB. Like many other magazines of the time, we wrote about SSB before legalisation. It was justifiable in that we were discussing the possible service that we might get. Now we have a legal system (like it or not), we could be seen as condoning or encouraging illegal activities.

2. Although we get letters from people like Tim who are SSB enthusiasts, the vast majority of our readers and correspondents are legal CB users. From this we must infer that's what most of the readers want to read about.

3. Letters like Tim's let us know that there is some interest but don't actually let us have any information. No, we didn't know about the European competition. Why not? 'Cos no-one told us and even we can't be expected to know everything.

4. I'm not so sure that everyone would agree that SSB ops. are the most sensible and courteous. I'm not saying that they aren't sensible and courteous, just that they don't have a monopoly on good behaviour, just as FM CBers don't have a monopoly on bad behaviour. That's the most we can say without taking up the page, although that's not the end of the discussion. What do other readers think. More SSB? and what about that 'sensible and courteous' bit...



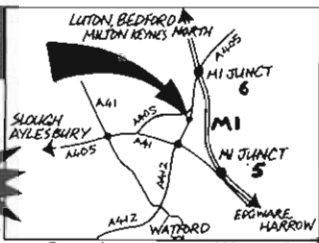
U.K.'S No. 1 TRUCK

TRUCK KING & CB STORE

AS ONE OF THE UK'S OLDEST ESTABLISHED CB SPECIALISTS (TRADING SINCE 1979) WE HAVE THE WIDEST RANGE OF CB'S AND ACCESSORIES IN THE COUNTRY
ALL MAIL ORDER ITEMS ARE CHECKED & TESTED BEFORE DESPATCH AND FULLY GUARANTEED.



CATALOGUE
£1.00



Tel: (0923) 661673

We are open Monday to Saturday 9 to 6:00. We are 1 min. Junc 6 M1. Take A405 to Watford, left at Horsehoes crossroads and we're 100 yards on the right - no parking problems or yellow lines.

All Prices quoted Include Post & Packing.

ASTATIC COMMUNICATION MICROPHONES

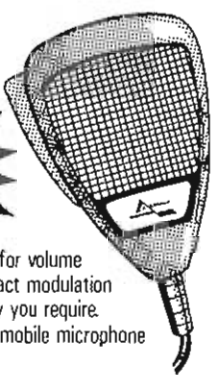
Astatic Microphones are due in this month from the USA. Stocks are limited so in order to ensure you get one **please send us your advance order as soon as possible.**

Please quote your CB make and model when ordering as all our mikes are supplied wired and with battery where necessary.

ASTATIC TEARDROP

£39.95

Features slide controls for volume and tone to get the exact modulation level and speech quality you require. Without doubt the top mobile microphone made today.



ASTATIC D-104 MINUTE MAN

£38.00

The Minute Man has a similar transistorised output to the famous 'Silver Eagle' base mike, now you can get that devastating modulation from a mobile mike, features adjustable gain control. Durable housing with a chromed front.



ASTATIC BUCKEYE 400

£14.00

Compact, dynamic mike of very high quality. If you require a non-power mike for your ES-880 or similar or just a good quality replacement mike this is the one.



ASTATIC 1104 DESK MIKE

£49.95

If you can't justify the Silver Eagle price but still want top quality Astatic modulation the 1104 is an excellent compromise. Tone and volume controls with lock on feature plus an adjustable 'master gain' to prevent distortion and over modulation.



ASTATIC D-104 SILVER EAGLE DESK MIKE

£75.00

The ultimate desk mike guarantees shattering DX modulation every time, this communications microphone has been proven for over 40 years in the USA! All chrome finish, with grip or push to talk bar and lock on ring plus the famous engraved 'Silver Eagle' head. Adjustable gain, not cheap but the best usually isn't.



Astatic microphones have been manufactured in the USA for over 40 years and in addition to their extensive CB and Ham Radio range of microphones they are one of the foremost Tannoy and PA system manufacturers in the world. Their experience is your guarantee, **if for any reason their 'Super Talk Power' equipment does not out perform what you are now using just return the goods to us for a full refund - no quibble, no fuss!**

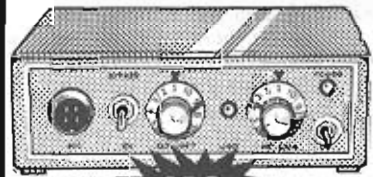
ASTATIC TRUCKER 2

£36.00

High output, noise cancelling mike with adjustable output level, ideal for transmissions where there is considerable background noise, features lip guard for correct mike spacing plus extended 7 1/2' mike cable.

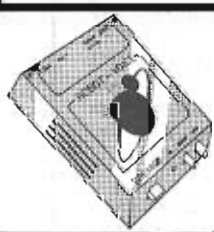


SPEECH PROCESSOR



REPRO SP-1001
£38.00

It's always nice to offer a British made CB product and it's even better when the unit works as well on FM as this does. Specifically designed for the UK market by Repro. Its 'Speech Power' is devastating. With the continued absence of Zenith from the British market this is really the one to go for and we reckon it's every bit as good. Please state radio make and model when ordering.



BREMI ROBOT VOICE

Gives a variety of Robot 'Metal Mickey' voice effects. Requires 12 volt power feed, comes ready wired for your rig (quote CB make and model).

£27.00

ECHO UNIT

ES-880 ECHO BOX

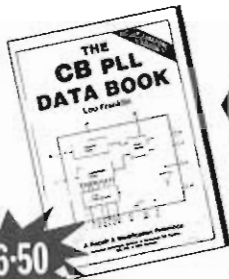


The most powerful echo unit available! Top quality Japanese unit features include LED level indicator for maximum performance. eapiece so you can check your speech quality. If you want to upgrade your 'talk power' don't miss the ultimate DX unit! Supplied ready wired (Please quote your CB make and model when ordering).

£46.00

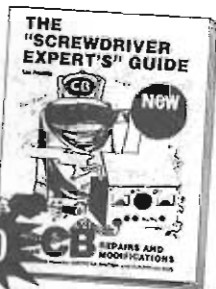
CB BOOKS FROM CB CITY, U.S.A.

PLL DATA BOOK



£6.50

SCREWDRIVERS GUIDE



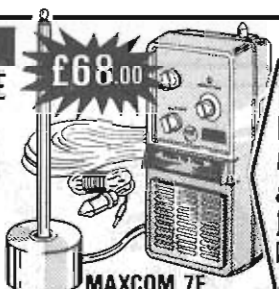
£6.50

Buy BOTH these two for £12

FINALLY, A "BIG DUMMY'S" MANUAL OF CB RADIO REPAIR!

Written in layman's terms, this unusual book teaches the average person how to recognize and repair many of the most common CB radio problems, and how to get the best performance from his rig. No special electronic knowledge or expensive test equipment is usually required. Using only common sense, logic, and some very easy tools and accessories, the reader is quickly guided to the problem area by simple illustrated instructions. Emphasis throughout is the fact that a person who has to live with a piece of electronic equipment works to be able to fix it. Many of the greatest CB mysteries, such as antennas are simply explained using everyday terms and analogies that anybody can understand.

- This latest edition also contains new sections to help the more advanced CB hobbyist modify his equipment for greater performance capabilities.
- HIGHLIGHTS:**
- How to diagnose and repair the most common antenna SWR problems.
 - How to wire any mike to any radio. Includes many common mike problems.
 - How to "peak out" transmitters and receivers for greatest range.
 - How to recognize the most common faulty parts. Find an inexpensive substitute part, and replace it yourself!
 - Unusual tricks and methods for curing TVI and spurious noise problems.
 - How to add extra channels to both crystal and PLL rigs.
 - How to make SSB Classifiers and an EXAMINER too.
 - Simple AM-to-PM conversions.
 - Specific power modulation adjustments for most popular models.
 - Unique Troubleshooting Chart to quickly isolate a problem.



£68.00

NOW BACK IN STOCK! Maxcom 7E £68.00 for limited period only.

MAXCOM 7E

A really versatile hand held 40 channel 4 watt unit, complete with its own carrying case it can work off either its own 12v power load from a car cigar lighter or from standard or rechargeable 1.5v batteries (not supplied). Its telescopic antenna detaches to fit onto its own magnetic base for mobile use. Ideal for any form of outdoor activities, emergency mobile use and can be quickly and easily swapped between vehicles.

£69.95

MAXCOM 30E



This top of the range radio features crystal filtering, RF & mike gain, PA facility, DX switch, tone switch and high SWR indicator, (this radio is featured in 'Citizens Band' reference section). Excellent value and performance.

Just back in stock this compact unit is the smallest available for the UK market, 4 1/2" wide 1 1/2" high and just 6" deep. Ideal where space is limited. Features volume, squelch, Hi-Low power and Ch. 9.

£45.00

WALKIE-TALKIE ACCESSORIES

RUBBER DUCK



£7.50

SCREW ON TYPE FITS ALBA, DNT, HARVARD, MAXCOM, REALISTIC ETC.

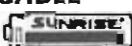
CHARGER



£7.50

Nicad charger plugs direct between mains and hand held, suitable for Alba, Harvard, Maxcom etc. State make and model when ordering.

RECHARGABLE NICADS



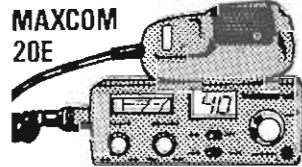
1.25 volts AA size

£1.25 each

MAXCOM 7E SPARES

- TELESCOPIC ANTENNA £6.25
- MAGMOUNT FOR ANTENNAS £11.90
- BATTERY CASE COMPLETE £13.50

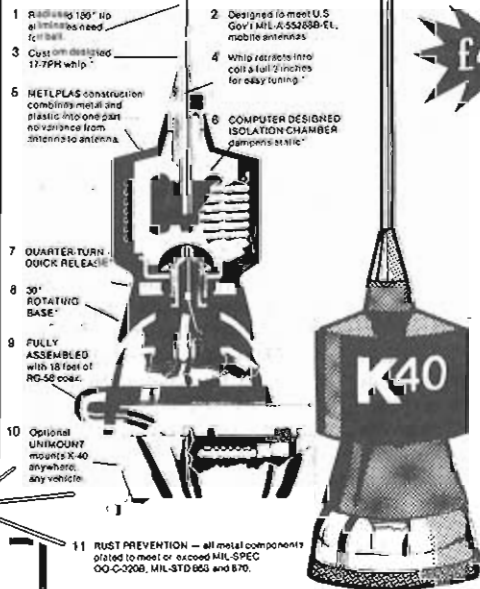
MAXCOM 20E



£42.00

K40 ANTENNA

We are pleased to say that we now have new stock of K40 from American Antenna - one of the world's finest made and best performing mobile antennas.



- 1 Radial 150" tip all times need for ball.
- 2 Designed to meet U.S. Gov't MIL-A-55268B-FL, mobile antennas.
- 3 Custom designed 17-77PH whip.
- 4 Whip restricts into coil a full 2 inches for easy tuning.
- 5 MET-PLAS construction combines metal and plastic into one part no splicing from antenna to antenna.
- 6 COMPUTER DESIGNED ISOLATION CHAMBER dampens static.
- 7 QUARTER-TURN QUICK RELEASE.
- 8 30" ROTATING BASE.
- 9 FULLY ASSEMBLED with 18 feet of RG-58 coax.
- 10 Optional UNIMOUNT mounts K-40 anywhere, any vehicle.
- 11 RUST PREVENTION - all metal components plated to meet or exceed MIL-SPEC QQ-C-3208, MIL-STD-883 and 870.

UNIDEN SERVICE MANUAL £6

26-page book includes PB010 chassis (COBRA 1480TL, DX, SUPERSTAR 260), PC999 (GRANT), and PB042 (JACKSON) in one complete book. Also applicable to States of DX export, and American 40W-144 type chassis. Written by Lou Franklin, this is the only service manual in existence. Complete specs, voltage measurements, stage gain measurements, theory including detailed PLL description, complete alignment instructions and layouts, block diagram. Special addition describes modifications and improvements for each chassis. Large 11" x 17" schematics for each chassis.

Buy BOTH these two for £11

CYBERNET SERVICE MANUAL £6

24-page book includes PCM4018, PTBM1254AX, PTBM1314AX, PTBM1324AX, PTBM1214AX. Models: Cobra GTL150, 148G FL-DX (phase), Cot 320FM, 328DX, 1200DK, 1600DX, 2000DX, 2400, Excelsior, Falcon 1000, Hawk International Concourse II, Concourse III, Gemini III, Gemini IV, Hydrex 275, 27 500K, 3125 (V), Inisk 1200FM, Lafayette 1800, 2400, H8810AFS, Midland 7001 export, Mongoo 2000, Nato 2000, Pacific 180, Phoenix 2400, 5000, Starline DX, Superstar 2000, 2200, Thunder 2000, Tristar 747, 777, 787. Written by Lou Franklin, this is the only service manual available for these radios. Complete specs, voltage measurements, theory, PLL, chassis, alignment instructions and layout, block diagram. Large 11" x 17" schematics of each chassis.

Buy all FOUR of these for £20 SAVE £5

LEMM MINI GP DX

Standing just over 2m high the new GP DX comes with a stand off bracket for outside mounting or can freestand in a room or loft. Top loaded for high performance but compact enough for use where a discreet antenna is required. Performance equal to many bigger base station antennas and highly recommended.

SIRTEL S2000

A superb new 1/4 wave from Sirtel, described as 'the best antenna we've ever used' by several local DX crews. Heavy gauge telescopic sections make this ideal for DX'ing on the hills. Eight mini radials give stronger signal and radiation pattern plus static top hat fitting for cleaner, interference free reception. Wide band width ensures low SWR over 3MHz and super-heavy coil loading will handle over 2Kw! We believe this will out perform any omni-directional at present made.

22ft. long.

£79.95

New! £19.95 LEGAL

MAIL ORDER To: TRUCK KING, Dept. CB 3

867 ST. ALBANS ROAD, GARSTON, WATFORD, HERTS.

Enquiries/VISA/ACCESS orders phone 0923-661673.

All prices quoted include post & packing. Overseas orders add 20%. (£ Sterling only please)

| QTY | ITEM | £ |
|-----|------|---|
| | | |
| | | |

Name _____ Address _____

I enclose Cheque/P.O. for £ _____ payable to Truck King

I wish to pay by ACCESS VISA AMEX (Tick) Card No. _____

PLEASE USE A SEPARATE SHEET OF PAPER IF YOU NEED MORE ROOM OR DO NOT WISH TO CUT YOUR MAGAZINE.

ACCESS/VISA orders phone 0923-661673

OUR NEW 1986 CB AND TRUCKING CATALOGUE FEATURES AND ILLUSTRATES 300 CB ITEMS. THE UK'S MOST COMPREHENSIVE EVER LISTING. ALL REGULAR STOCK LINES PLUS OUR FULL RANGE OF TRUCKING STOCK - DISCOUNT VOUCHERS WORTH UPTO £10.00 INCLUDED. TO GET YOUR COPY NOW SEND £1.00 CHEQUE/P.O. - DON'T MISS OUT



MAKE SURE OF YOUR COPY SEND £1.00



Hi Breakers, welcome to Truckstop again. At the moment I am enjoying my two weeks Christmas holidays and must admit I could get used to lying in bed, drinking tea.

This month's article is a little different to the usual column. There will be a Cafe of the Month but very little else to do with trucks and trucking. However, I should be back to normal for the April issue. Before I go any further, I would like to thank my many, many CB friends from all over the country who have sent me and my family Christmas cards and good wishes. May we sincerely wish you all a very happy and prosperous New Year.

As I said above, this month's featured cafe is Jock's. The cafe is situated a quarter of a mile off the M4 junction 5 on the Colnbrook by-pass. It is open from 6 am until 9 pm Monday to Friday with meals available at all times, and Saturday 6 am until 12 pm. Also, there is accommodation available for 20 people with showers and TV and sleeper cabs are welcome. Food is excellent with plenty of choice; the only criticism I have got is the lack of parking space, but I use the cafe regularly and can recommend it.

On the 13th December, 15 members of the Telford Thunderbirds, including myself, went to an eyeball/dance held by the Whiskey November DX Association. We spent a very pleasant evening with our friends from Wolverhampton and also the many DX stations who were there, with special mention to Terry, Texaco and the coach-load from Sheffield which included Frank, Lincolnshire Poacher and his wife.

Also on the same evening Big Daddy (Ian from Birmingham) and Harold (Stud from Ashby-de-la-Zouch) held a very special evening at Burton-on-Trent to try to raise money to help John (Yorkshireman) and his wife Chris (Goldilocks) who lost their home and all their belongings in a fire a few weeks previously. It is a shame that the two eyeballs were on the same night but Ian assured me it was the only date available. He had originally been promised the 20th — but, never mind, both events were very well

Bit T finds some big-hearted breakers

supported. I spoke to Ian on the telephone and he tells me that up to the time of writing (the end of December), £1,500 had been raised. This included money raised from the eyeball and also the sponsored modulation held on the 9th and 10th November. It's great to see CBers sticking together to help each other and it's a pity we never seem to see items like this in the newspapers instead of the bad aspects of CB. Well done Ian, Harold and everyone who helped to donate so much to such a worthy cause and Ian assures me that QSL cards and a personal thanks will go to everyone concerned. One last sad note to end this already tragic story is that John and Chris's two dogs were burned to death in the fire.

Telford lost one of its best known breakers this week — my old friend Chemical Man (Malcolm). He decided to sell all his equipment and has told me that he had just lost interest as he no longer got any fun out of his rig. I think it's the same all over the country — the wallies seem to be increasing each week. Why don't the DTI do something? These are the sort of breakers we don't want to lose. I telephoned our local DTI and spoke to one of their officers. I asked him if he would come up to our club to meet most of the decent local breakers (invitations have been sent to other local clubs). He has promised to come and tells me that, if we can give him names and addresses of our local offending wallies and bucket mouths, he will try and prosecute — I will let you know what happens.

Twice during my Christmas holidays I actually got up early (5 am) to have a flick round the channels to see who was about and I was pleasantly surprised to find many of the DX stations hard at it. Mr Fixit, Chris and Seven Iron were cracking into Telford as were Peter, Yachtsman, Happy Harry, Henry, Battler, Terry and my old mate Gemini One from Derby. Ian (Big Daddy) had a nice network going from Bala into Wolverhampton and the Midlands with Roger, Headstone, Pete, Rhino and Seiko, Bob having some fun going

north — it's a shame that CB isn't always that good.

As I have said many times in this column, it's very strange writing at Christmas what you, the reader, will be reading in March but I am slowly getting used to it so, although it is December 1985, mine and other peoples thoughts, I am sure, are on the 1986 eyeballs. The first one will be Caerphilly at Easter, closely followed by our own at Telford.

This year will be the same as last, with our friends the Lima November DX Group holding their fourth open air Spring Fayre/eyeball on Sunday 25th May and our group, the Telford Thunderbirds holding our second indoor eyeball/dance on Saturday 24th May. Last year, both events were very successful but I can assure you that this year's will be even better — anyone wanting information on the Telford dates, please write to me at PO Box 555, Telford, Shropshire, enclosing a stamped addressed envelope and I will gladly oblige.

The week before my holidays, my Scania was due for a service at Ryders, Oldbury. As usual, I had to have one of Ryders' spare units — more often than not we get another Scania or one of their Bedfords, but on this occasion they gave me a 'B' registered Leyland Roadtrain, 6-wheel unit and that's when the fun started. After a quick inspection by Ryders to check for previous damage, I was handed the keys. One of the mechanics told me to beware as it gets stuck in the lower gears. "Why not send it back to get it fixed?" say I, "They are all like this," says he. Oh well, here we go, third gear, clutch out — what's under this bonnet?

On to the 4123 Birmingham New Road — I think I will go back to Telford via the M5, M6, M54. Onto the M5 working up the gears, nice smooth box, top gear 2000 revs, a quick look at tach, 70 miles per hour, never mind it's only because she's empty. Back to Telford, a little bit of extra care with the brakes because on this they are very good. Where to tomorrow? Hope it's Scotland. With all that lovely motorway, it would give it a good test. No such luck, it was Norwich — 200 miles each way, mostly single-lane roads. Well better luck next time. Stay lucky.

Big T

STOCKPORT C.B. CENTRE

14 Buxton Road, Heaviley, Stockport. 061 477 6483.

Sole importers of this new carrying case. Ideal for Camping, Mountaineering, Walking, (even Space Travel!!) Send £6.95 plus 75p post and package now, and we will send you this case and aerial bracket.



Callers welcome.

**PORTABLE
CARRYING CASE
FOR THE UNIACE
100!**

TRADE - TRADE
24 Hour
Delivery Service

**HAM INTERNATIONAL MAIN DEALER
FOR SOUTH WALES**

C B T

1 Prince of Wales Rd.,
Swansea
(0792) 463821

| | |
|---|-------------|
| Ham Relax Power Mike..... | £22.50 (C) |
| Ham 232S Processor Base Mike..... | £44.99 (D) |
| Ham 232DX Processor Base Mike..... | £49.99 (D) |
| Ham Antenna Matcher with through switch..... | £10.99 (C) |
| Ham 10-12 amp Power Supply..... | £69.95 (E) |
| Ham Thunderbird Base Ant 5/8 wave..... | £39.95 (E) |
| Ham High Power Ant 5/8 wave..... | £49.95 (E) |
| Ham Sexy base antenna 6/8 wave..... | £65.00 (E) |
| Ham Big Mac Base Ant 7/8 Wave..... | £65.00 (E) |
| Frequency Counter 5 digits..... | £59.99 (E) |
| Ham extension speaker with filter..... | £10.99 (C) |
| Ham LA 120 100 watt am/fm - 200 watts ssb variable with preamp..... | £179.00 (E) |
| Ham LA 60 50 watt am/fm - 100 watt ssb variable with preamp..... | £130.00 (E) |
| SEIF reverbator RA 201..... | £34.95 (D) |
| Ham ROS-90 SWR-FS-Antenna Matcher..... | £10.99 (B) |
| Ham ROS-4 SWR-Power-FS..... | £12.99 (B) |
| Ham ROS-6 SWR-Power modulation meter..... | £49.00 (B) |
| Ham HFC 03 Frequency Counter..... | £85.00 (D) |
| Ham HFC 04 Frequency Counter..... | £89.95 (D) |
| Ham Standard Mike as originally supplied by Ham..... | £7.99 (B) |
| Fidelity 2000 160ch. FM..... | £99.99 (D) |
| York 861 40 channel FM Cybernet chassis..... | £59.99 (D) |
| York 861 60 channel FM Cybernet chassis..... | £75.00 (D) |
| York 861 160 Channel..... | £90.00 (D) |
| York 861 120 channel..... | £90.00 (D) |

Other range available on request

| | |
|---|-------------|
| 120 channel expansion boards (state rig) for FM rigs..... | £29.99 (C) |
| Sunny 200s 100 watts AM/FM 200 watts SSB..... | £89.99 (D) |
| Colour 148 original rig bracket..... | £4.99 (B) |
| Multimode II or Concorde II handbook copies..... | £1.50 (A) |
| Multimode Two rig bracket..... | £4.99 (B) |
| Super Stax 360 handbook copy..... | £150 (A) |
| Cordless Telephones..... | from £50.00 |
| Auto squelch for FM rigs (state model)..... | £12.95 (B) |
| Service manual for FM Rigs..... | £3.00 (B) |
| Service manual for SSB Rigs..... | £5.00 (B) |

Spares available for Ham Models

POSTAGE RATES: (A) 50p (B) £1.00 (C) £2.00 (D) £3.00 (E) £5.00

To obtain our catalogue on C.B. equipment send £1.50 to C.B.T., 1 Prince of Wales Road, Swansea, Catalogue contains the MMIII CONCORDE III & JUMBO III

ACCESS AND BARCLAYCARD ACCEPTED

GEMEC

DELTA D.X.

LEGAL BASE STATION ANTENNA
- A UNIQUE DESIGN THAT GIVES
OUTSTANDING LONG DISTANCE
PERFORMANCE

- Meets Home Office specification
- Heavy duty fibreglass & polished aluminium construction
- Precision engineered 1/4" diameter weatherproof centre loading coil
- 500 watt power handling capacity
- S.W.R. better than 1.5 to 1 F.M., A.M., S.S.B.
- Easy erection without expensive extra masting
- No unsightly angled radials
- Band width 26-28 Mhz

'A little extra will get you
a lot further'

£34.95

AVAILABLE THROUGH
YOUR C.B. RETAILER

Trade enquiries to:

CHELCOM
163 Gloucester Road,
Cheltenham,
Glos. GL51 8NQ
Tel: (0242) 42095

934 MHz PERSONAL RADIO

The Nevada Range

Join the growing number of people discovering this exciting radio band.

934 MHz offers 2 way high quality communications from 10 - 250 miles (according to location/weather conditions).



THE CYBERNET DELTA 1 934 MHz TRANSCIVER

Has been engineered specifically for the UK market using latest "state of the art" technology.

- Sensitive RX (0.25 μ V for 12 db SINAD).
- 16 memories available.
- Auto/Manual scan and search facility.
- External 'S' meter socket.

£355 + £5 DELIVERY
 HP available (subject to status)
 £35 Deposit (Apr. 36.8%)

7.

POWER SPLITTER

Enables the co-phasing of any two similar 934 MHz antennas to give an additional 3 DB gain.

£24⁵⁰

HRA 934 L IN-LINE GaAs FET PRE-AMP

A super new ultra-low noise pre-amp which fits in line on any base or mobile installation. Guaranteed to give a staggering increase in received range. Extremely low noise 0.7 DB NF. 20 DB gain.

£125

HRA 900 MASTHEAD PRE-AMPLIFIER

Super low noise GaAs FET pre-amplifier that mounts at the masthead. Low insertion loss and noise (typically 0.8 dB) coupled with 15dB gain enable this unit to double the received range of many sets.

£139⁹⁵

SWR/POWER METER

This precise and extremely accurate meter features an illuminated scale, low loss 'T' type connectors and twin meters for both power and SWR measurement. Power 0-50 watts in two ranges.

£89⁹⁵

REMOTE ANTENNA SWITCH

High quality weatherproof masthead mounting switch. For switching 2 antennas with one cable feed.

£59⁹⁵

HAS-2

Remote DC switch for mast head antenna switch

£6⁹⁵

WR 900 SWR/POWER METER

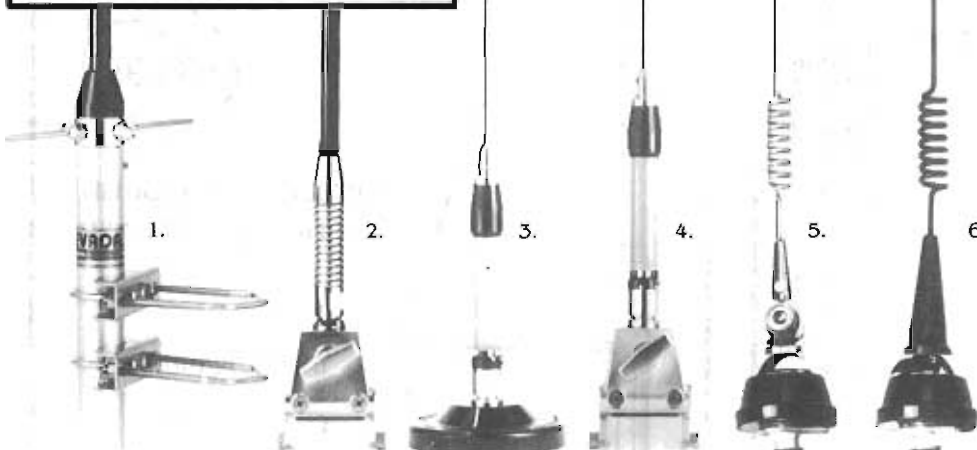
A low cost unit measuring power to 100 watts in three ranges.

£49⁵⁰

ANTENNAS

Manufactured to the highest possible specification.

1. **PA7-E BASE COLNEAR**
Gain 7.14 dBi stacked $\frac{3}{8}$ array. **£66**
2. **P714-RE**
High gain gutter mount, mobile antenna. **£44**
3. **P7-ME**
High gain mobile magnetic mount antenna. **£44**
4. **P7-E**
High gain gutter mount mobile antenna. **£44**
5. **G900A**
Low profile, bolt thru mobile antenna. **£25**
6. **G900R**
Low profile bolt thru mobile antenna in black. **£25**
7. **Tc 12L MKII 12 ELEMENT BEAM**
A new aluminium version of our successful 12 element loop quad. Gain: 18dBi. **£49**



ASK YOUR DEALER FOR MORE INFORMATION OR CONTACT US DIRECT.

NEVADA 934

Professional Series

Telecomms, 189 London Road, Portsmouth PO2 9AE. Tel: 0705 662145 Telex: 869107 TELCOM G

Nevada 934 MHz Catalogue with full details and specifications of the complete range is available from Telecomms £1.00.

LADY BREAKERS



A visit from a brother-in-law causes Filly some problems

It's true what they say. You can choose your friends, but you're stuck with your family.

Normally, I manage to avoid family visits with a skill born of long practice. I am very adroit. I never make the same excuse twice. If we're not in the middle of decorating, we've just had a burst water pipe. If we're not putting in central heating, or taking the central heating out, we've got friends to stay, or we'll be away visiting the in-laws that weekend.

Of course, we can use each excuse twice, once for his family and once for my family, but there are times when I think they've noticed.

"Why are you going surfing in Cornwall", a cousin asked once, "in the middle of November?" Well, even I can slip up. It's not that we don't get on with our families, it's just that . . .

well, one relation penetrated our defences the other week, so you'll see what I mean.

His tactics were simple but effective. He turned up without warning one Friday evening, and unfortunately, we were in. The house was in perfect repair. No suitcases were packed. No visitors were in possession of the spare room. There was nothing we could do.

"Howdy, folks", he greeted us cheerily as we opened the door (he'd recently spent a year in America). It was my husband's brother, a sixties dropout.

Ensnared in my favourite armchair, having disposed of most of the contents of the fridge, he caught sight of my base station.

"CB radio!" he exclaimed enthusiastically. "I never knew you two were good buddies! Let's have the mike, then!"

"Er", I said, nervously.

"Aw, c'mon, love, I've seen these things before, y'know, in the States. I know the lingo. D'you read me, Roger, over and out, that's a big ten-four, Smokey on the prowl, let's have an eyeball, and all that. Let's have a go."

"It's broken!" I said, desperately, but of course someone chose that precise moment to come on the air.

"Naughty, naughty", the obnoxious visitor said heartily, plucking the mike from my hand.

Joker

"This is Joker calling, Joker calling, do you read me, buddies?" No one responded, possibly because he had omitted to press the mike transmit button.

"C'mon, folks, Joker calling, it's Friday night, where's the action round here?"

There was the crackle of more voices as another conversation started up on the channel. Brother-in-law scowled at the mike.

"Hey, they're ignoring me. Don't they like strangers round here? Hey, you lot, where are your manners? Talk to me, people!"

I was just beginning to think he was about to tire of it and I was safe, when he spotted the button.

"Ah, I get it. Neat, that. You press this button here, right? Gotcha. Here we go. Joker calling, anyone out there? Anyone read me, over?"

I cringed in my chair, but there was no sound from the radio.

"There, they've gone, might as well turn the set off now", I said, hoping he didn't know there were 40 channels.

"Aw, c'mon, it's only nine o'clock, there must be someone in the whole of the Big Smoke listening."

"London's thirty miles away", I said, tartly. "This is the country, you know, farmers and such, they always go to bed early. Give me the mike".

His face fell, then brightened. "Tell you what, why don't you go out in your car and talk to me on the radio you've got in there? And don't tell me you haven't got one! I saw the aerial!"

Electricity

I was about to tell him that the mobile rig was, regrettably, not working, when it occurred to me that the channel was still strangely silent. An awful suspicion struck me . . .

"Hey", said our visitor, "can I let go this button now?"

It was no good, he had to go.

"All right", I said cunningly, "we'll go out in the car, and send you a message, right? You sit here, and *don't* press that button or you won't be able to hear us."

We went out into the hall. "Quick", I hissed, "turn the electricity off!"

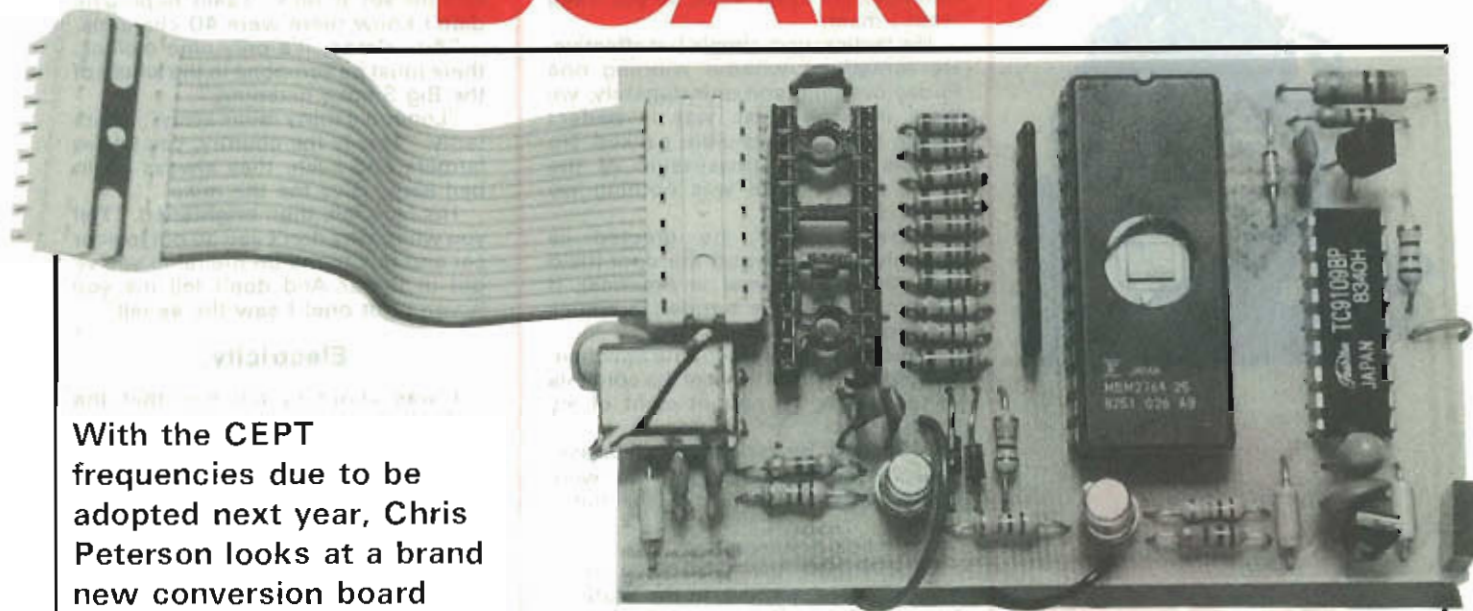
"What?" squeaked my husband. "What about the freezer? The clock on the video? The central heating?"

"Do you want that idiot here all weekend, upsetting every breaker for miles around, eating all the food, drinking all your scotch, playing with your train set?"

The train set clinched it. He turned off the electricity, I grabbed the toothbrushes, we fled to the car and shot off down the road . . . and down another road . . . and on to the main road . . . and on to the motorway . . . and off the motorway . . . and on until we found a little pub buried in the depths of the country, where we spent a blissfully peaceful, brother-in-law-free weekend.

Well, we lost the food in the freezer (it didn't defrost, brother-in-law ate it), we had to put the base station together again (he'd taken it apart in an attempt to find out what was wrong with it), and when he finally left in a huff he forgot to close the front door with the result that when we arrived back on Monday morning, two stray dogs, a cat and a sheep were in residence. But the house was our own again, and no one ever discovered that Joker, the button-pushing imbecile, was in any way related to me.

FCC CONVERSION BOARD



With the CEPT frequencies due to be adopted next year, Chris Peterson looks at a brand new conversion board

It seems like only yesterday that we were all scrabbling for conversion boards to get American and European CB rigs working on the UK 27MHz band. The decision, back in 1981, to put the British CB band in a completely non-standard part of the spectrum pleased no-one except a few Whitehall mandarins, for whom it was a face-saving exercise. The legitimate users of the band in those dim and distant days were nearly as outraged as the CB lobby. The mandarins were adamant that the band of frequencies used everywhere else in the world couldn't be used because of the existing legitimate users of the band, neglecting to add that those same legitimate users were desperate to get off 27MHz for obvious reasons, and were only being prevented from doing so by those self-same mandarins!

As committed Europeans, the Government were forced to add a rider that should a common CB specification be adopted at some future date, then Britain would of course comply with it. Almost immediately the Europeans announced a common CB specification to be implemented as soon as practical. The new spec was to be 40 channels, 4 watts FM on, surprise surprise, the American FCC frequencies. Most existing European equipment already meets this specification, though not

necessarily to its full advantage, with the exception of Britain! In Britain, although the power modulation and number of channels are right, the frequencies are completely wrong!

Now the frequencies are determined by a fairly complex little circuit known as a Phase Locked Loop Synthesizer, or PLL for short. To comply with the regulations of most countries, though curiously *not* Britain, the PLL circuits have to be designed in such a way as to prevent them being modified to operate on non-standard frequencies. This is usually achieved by limiting the number of input pins available to the device, and burning the necessary data into a read-only memory within the IC. However, human ingenuity knows no bounds, and there is at least one quite complex modification available that allows amateurs to use synthesized CB rigs on the 10 metre amateur band!

Changeover

Returning to our own problems, it appears that there will be a change-over period starting in 1987 (late in 1987, knowing our authorities!). During this period, existing rigs can continue to be used, but all new rigs must operate on the FCC frequencies, though still in FM of course! After a period of time, as yet undecided, the existing

UK frequencies will be withdrawn from use.

Most of the rigs currently available on the British market employ one of two synthesizer ICs. The most common is the LC7137 that is used by rigs using the Cybernet chassis. It is also used in the Maxcom chassis, and many others too.

We have recently been supplied with a conversion board that will convert a Cybernet chassis from the UK frequencies to the FCC frequencies, and allow the rig to be switched from one mode to the other. The boards are provisionally priced at £18.50 each, and, it is claimed, are simple to fit.

Although intended for the Cybernet chassis, the instructions indicate that the board might be suitable for use in other rigs using a 7137 synthesizer.

The board comes wrapped in heatshrink sleeving with one end slightly cut back to reveal an IC socket. There is a ribbon cable with a 16-pin DIL plug on the end and a number of flying leads. Peeling back the heatshrink to examine the works for the purposes of this review revealed a nicely made printed circuit board containing quite a few components. Most notable were a TC9109 FCC synthesizer IC and a 2764 eeprom. A single crystal is used to provide the oscillator function for both synthesizers. The TC9109 is used as it appears to be the only FCC synthesizer

that uses frequency doubling to achieve transmit frequency output, as does the 7137. The 7131, (the US version of the 7137) mixes the VCO output with the 10.24 crystal oscillator to achieve TX frequency, and thus could not be used in a conversion without considerable modifications to the rig.

To fit the conversion board it is first necessary to remove the 7137 from the rig. This is not a job for the inexperienced! Even experts wince at the prospects of safely removing a 20 pin IC from a packed PC board! To achieve this with any chance of success requires a good soldering iron with a fine bit. A lightweight 15 watt iron with a 1/8" bit is ideal, and a solder sucker. The best solder suckers are those that act like a bicycle pump in reverse. A spring loaded plunger is depressed and locked in position. When the joint is heated and the solder liquid, the nozzle is placed over the joint and the trigger button depressed. The plunger springs out and the liquid solder is sucked up the barrel. These tools are very effective but, again, care and practice is needed to extract an IC without damage!

Crystal

The crystal also has to be removed from the rig and discarded. The 7137 IC is now carefully inserted into the spare socket on the conversion board. Again, extreme care is needed in this operation. It is very easy to get the legs out of alignment and bend them when pushing the IC home. Once a leg is bent, it will probably snap when straightened, and the IC is then useless. A new 7137 will cost you about £8! Also IC sockets are not usually intended to take ICs that have been removed from boards, and thus still have blobs of solder on the legs! The legs should be cleaned carefully with the soldering iron before trying to insert it into the socket, taking great care at the same time not to get the IC itself too hot!

Next, the 16-pin plug on the flying lead is pushed into the holes vacated by the 7137 on the rig's board. The astute amongst you will have noticed that the plug has 16 pins and there are 20 holes, but holes 9, 10, 11 and 12 are not used at this stage. Next the flying leads are connected, one to hole 11, one to a suitable ground point and the other to the switched 12-volt supply line. This leaves three wires; green, pink and blue. With the pink connected to the green wire, the UK band is selected. With the pink connected to the blue, the FCC band is selected. This can be achieved by a switch, of course.

The conversion board contains a red LED to indicate that the PLL is locked. With the UK band selected, the LED should remain lit across all 40 channels both on receive and on transmit. Next, the FCC channels are selected, and the procedure repeated. If the LED does not remain lit across all 40 channels, then the VCO coil will need adjusting. Since this is always sealed with wax, the wax has to be removed *very carefully* with a screwdriver before adjustment can be made. The reason

for the extreme care is that the ferrite slugs in these coils are very brittle, and easily shattered by hard objects like screwdrivers! Having removed the wax, the coil should now be adjusted with a non-metallic tuning tool until VCO lock is achieved across all 40 channels.

Next, it must be checked to ensure that it stays in lock across all 40 channels when transmitting, and this is achieved by adjusting a small variable capacitor on the rig. Once lock has been achieved across all 80 channels, the coil should be locked again with wax. The easiest way of doing this is by dripping wax from a burning candle down it!

Instructions

The instructions supplied with the conversion board are adequate as far as they go, and anyone with a bit of experience of working on radio circuits should have no problems. However if all you have ever done is solder a lead on a mic, then that is *not* sufficient experience to tackle this sort of conversion, and more experienced assistance should be sought!

Returning to our sample, unfortunately we didn't have a Cybernet board available at the time of this review! Therefore a Midland 2001 was pressed into service.

The 16-pin plug on the flying lead had been fitted the wrong way round. Physically this doesn't make much difference, but it means that pin marked 9 rather than 1 has to go into hole 1. Anyone following the instructions shouldn't have any problems, but it could confuse someone unfamiliar with these circuits. Having fitted the board, initially we couldn't get the PLL to lock up on the UK channels on both TX and RX. By adjusting the VCO coil (L116) we could get it to lock on one or the other, but not both at once! A quick examination of the circuits of the Midland and Cybernet chassis revealed that the Midland had an extra diode connected to pin 20 (the TX-RX line) for no apparent reason. Shorting this diode out brought about an immediate improvement, and lock was now achieved across all the UK channels. Switching to the FCC frequencies revealed that lock was lost on the lower channels. Careful adjustment of the VCO coil produced a point where all channels could be locked, but only just.

To be fair, this is a problem that is unlikely to arise on a Cybernet chassis. The PLL works by a control voltage to a Voltage Controlled Oscillator (VCO) to adjust its frequency. The higher the frequency, the higher the control voltage. Now in the transmit mode, the VCO is running at half the final output frequency. In the receive mode it is running at the final frequency *minus* 10.695MHz. Thus, the frequency of the VCO in receive is *always* higher than in transmit. So the highest control voltage is required on channel 40 receive, and the lowest on channel 1 TX. The point at which the PLL loses lock is about 7 volts at the high end and about 0.3 volts at the low end. In practice, the VCO volts measured at

the test point on the rig should be kept between 1 volt and 6 volts. Incidentally, this is a far better way of adjusting the VCO than waiting for the LED to light. In practice, the LED tends to flicker every time you adjust the VCO coil, however gently you do it.

Now on a Cybernet rig, an extra capacitor is switched across the VCO coil in the transmit mode to minimise the voltage swing necessary between TX and RX modes. The Midland doesn't bother, and thus requires more voltage swing than a Cybernet to cover all 80 channels. Indeed, it barely makes it.

Frequencies

The fitting instructions mention this and suggest reducing C23 (33pF) to extend the VCO range. I'm not convinced that this is the correct way to go. Not only will this affect the VCO range, but also the deviation, which would then require resetting. Nevertheless, we did reduce the equivalent capacitor (C215) on the Midland. Not only was this tricky, because it was buried in wax, but it didn't help! A more promising approach seemed to be to increase C219 (C26 on the Cybernet). This is easier since it can be achieved by tagging an extra capacitor across the back of the board in parallel with the existing one. On the Midland, this will not affect the deviation, though it probably will on the Cybernet. (On the other hand it shouldn't be necessary on the Cybernet as previously explained.)

Having done this mod, we now had lock right across all 80 channels well within the lock range of the PLL. A quick frequency check showed that the frequencies were within 500Hz on both the UK and FCC frequencies. Deviation was exactly the same on the UK channels as before the modification, but was slightly less on the FCC channels. Not really sufficient to worry about however!

There seemed to be a few low level "birdies" present on the FCC bands for reasons that weren't immediately apparent. However, on the air (in the receive mode only!) we could hear a couple of distant paging systems quite clearly, and comparable in strength to the received signal on a communications receiver.

In conclusion, the conversion board achieved everything it claimed, and for £18.50 must be a reasonable buy. However, I would question whether *anyone* could instal it and would suggest that installation should be left to a competent 'rig-doctor'. Finally, please remember that the FCC channels are still *illegal* at the time of writing. All our tests have been carried out on dummy loads without radiating a signal. If you get caught using the FCC frequencies at the present time you face a hefty fine and confiscation of your equipment. There are still legitimate users on these channels and you upset them at your peril!

The FCC Conversion Board is available from S. J. Tonks (CB Components), 18, Simmonds Place, Wednesbury, West Midlands. Telephone 021-526-3154.

NEW! NEW!

Q.S.L. Q.S.L. Q.S.L.

SAXON PRINT are delighted to announce the launch of the

BLACK SAXON CARD

These prestigious collectors' cards will be individually numbered, have a tonal quality to the printing, will incorporate the finest designs and most importantly will possess a deluxe, quality, textured finish. Furthermore, you don't have to be a millionaire to own one of these exclusive cards as they are well within the reach of everybody's pocket.

**250
for
£15.00**

**500
for
£25.00**

**CLUBS &
PERSONAL
1000
for only
£35.00**

BLACK SAXON

*These cards cost
500 For £25
250 For £15
Collector Card
Series I*



P.O.-box 75,
Hastings
TN 34 1RS
E - Sussex - England

**CLUB INVITATIONS
AND CERTIFICATES**

ROSTERS

RUBBER STAMPS

NEWSLETTERS

**PRICES AVAILABLE
FOR CLUBS
S.A.E. PLEASE**

**FOR YOUR
COMPLETE CLUB OR
PERSONAL
REQUIREMENTS**

**QSL CARDS FROM
£10 per 200 + 50p
p & p C.W.O.**

Black Saxon 00

Whether your heart lies with DX or SWAP start 1986 with a touch of quality, style and most importantly SOMETHING NEW

“SAXON PRINT”

14 STIRLING ROAD, CASTLEHAM IND. EST.

**HASTINGS, E. SUSSEX. Phone 0424 52332. 3 lines
Telex 946240 CWEASY G Ref 19013120**

OUR PERSONNEL WILL BE AT YOUR DISPOSAL TILL 9pm, 7 days a week

946240
1 1000
2 1000
3 1000
4 1000
5 1000
6 1000
7 1000
8 1000
9 1000
10 1000



David Shepherdson
with more news about
QSL clubs and QSLers

COMMUNICATION THE QSL WAY

This month I'd like to start off by mentioning a DX/QSL Contest that has been running since the start of the year. This is the Sea Dragon DX QSL Club's All Counties DX Contest. It is open to all Sea Dragon members and is free to enter. The contest runs until the end of the year and applies to QSOs, on legal UK FM of course, with Sea Dragon members. For further details, entry forms, rules etc, please send a SASE (Self Addressed Stamped Envelope) to Ken (SD 001) at PO Box 2. If you are not a member of the Sea Dragon and wish to enter, do not despair, membership is free, just send a largish SASE (18p stamped) with five signed and dated personal QSL cards. The Club also offers a club stamp at £2.50, Currie-style club cards at £2.50 per 100, POMA cards at £6.50 per 100 and key kings at 25p each (plus a SASE for the keyring). Cash or postal orders only please, the Club does not accept cheques.

About this time last year, we in the UK were expecting a visit from Jorgen Hansen of the Toucan Club in Venezuela. As indeed were several people in Europe but, as regular readers will already know, this never happened. In fact, no one knew what had happened until about October, then some overdue packages started to arrive. Anyway, to clear things up, what actually happened was that a couple of weeks before the actual visit, Jorgen collapsed and was rushed into hospital where he was finally instructed by the doctors there to have at least three months total rest without any stress at all. This meant that he was not allowed to even see the pile of post waiting for him! So, who knows, perhaps this year will see Jorgen fit enough to make the trip but, whatever happens, we wish him all the best with his continued recovery.

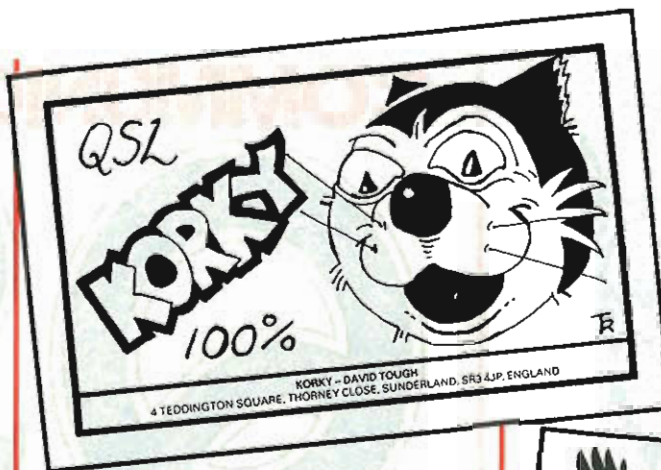
Okay, time for a few names here starting off with one from Norway. Leif (*Charles Oscar 001*) of Oslo drops me a line asking for a mention, saying that he is the President of the Charlie Oscar DX Club of Norway, but I do not have

any details on this club, only that he runs it and draws all his cards himself.

Next up is David (*Korky*) with a great Currie "Independant Artist's" Series Card, and from Ian (*The Kestrel*) a pile of POMA and other FCC cards, and he says he would appreciate a mention and does QSL 100%. From Andy (*Nighthawk*) of Crewe, a whole pile of superb high-gloss Currie "Collector Series" cards which are really excellent! These rival the Applejack series of Currie Cards, in my own opinion. Obviously, tastes differ but, to me, these new Currie Cards really are something! Many years ago, when I started QSLing, after reading some pages similar to these, I had some Currie Cards printed for use as 'floaters'. These were to be used alongside my own cards, not instead of them, as some people seem to do these days. Anyway, these cards were of the outline picture style, specifically a personalised English International DX Club (now sadly closed down) and it has been interesting to compare how Des Currie's artwork and even his printing has changed over the years. His quality and speed has always been excellent, but after this new Collector Series, I do wonder, what will be next? Keep it up Des!

Right, on with some club info now, with a letter from Matt (*Brown Bear*) of Belfast who reminds me about the Mount Bay Skippers of Cornwall. Some while ago, I asked if this club was still operative, as some people had sent off money and letters and not heard anything. Well, Matt has done the same and, again, nothing has been heard from them. Can anyone cast any light onto the condition of this club? Also, while on the subject of asking for info, even though a month or two back I said that I had finally heard from D'Zine of Preston to the effect that Don had been ill and had been therefore unable to print cards, I am still receiving letters to the effect that he is still not supplying cards to some people. If anyone can shed any light on this subject, I and many other people would be grateful.

I've just had a (long) letter from the ol' JR of the ABC Club in Cheshire who bends my earhole about the fact that all the people who have been writing in to me saying that they have the last of the Wizard designed cards are *wrong!* He has it! And to prove this, he has sent me one. This one really is the end, it's marked "The Last in the Wizard Series", and where the number goes, there's the word *end* instead. Our best regards go to Alex (*The Wizard*) who has had to give up QSL card designing/printing due to continuing ill-health. All the best, Alex. Membership of the Atlantic Breakers Club (ABC) costs £6 and ten QSL cards to join. For this one can expect your ABC No., ID card, certificate, club stamp and cards etc. Also, for an extra £2.50 per year, you can subscribe to a bi-monthly newsletter which includes both the infamous Buck Fuzby and the fantastic spelling mistakes of JR himself! Well worth getting for that alone, never mind the info included.



Moving on now, I've a letter from Bob (*Rocket Man*) who is now the proud owner/president of the Mermaid DX QSL Club, formerly of Denmark, now of Shildon, Co Durham. He lets me know that he now has a new set of Club QSL cards available in the Currie Card style at £3.00 per 100, and that he is now the UK representative for a Swedish firm of cloth patch makers. If interested in this, please drop Bob a line, with SASE of course. To join the New Look Mermaid Club costs £3 (cash) and between 10-15 signed and addressed *personal* QSL cards. For this amount you get your Mermaid number, ID card, certificate, 10 club cards, key ring, XYL No. and card, DX-QSLing tips, exchange cards and invites.

One point that I would like to raise



here is about the cards that *some* people use when joining a club. Many clubs state that the cards with which you apply to join them should be *personal* ones, and not another club's. This is often considered an insult as these people apparently cannot be bothered to read the invitation, or intend to insult the club by suggesting that the club is not worth their own cards! If you have just started QSLing, than you may not yet have any personal



QSL Service Addresses:
 Curries (Printers)
 POMA (UK Rep—Ray) 89 Derwent St, Blackhill, Consett, Co Durham.
 PO Box 106, Canterbury, Kent.

QSLER ADDRESSES:

| | |
|-------------------------------------|---|
| Leif (<i>Charlie Oscar 001</i>) | PO Box 79, Ljan, 1113 OSLO 11, Norway. |
| David (<i>Korky</i>) | 4 Teddington Square, Thorney C1, Sunderland. |
| Ian (<i>The Kestrel</i>) | 1 Eashing Farm Cott, Eashing Ln, Godalming, Surrey. |
| Andy (<i>Nighthawk</i>) | 42 Stalbridge Road, Crewe, Cheshire. |
| Matt (<i>Brown Bear</i>) | 47 Empais St, Belfast 12, Northern Ireland. |
| Alan (<i>Red Monkey</i>) | UK Rep Cupido, PO Box 5, Clacton-on-Sea, E. Sussex. |
| George and Ann (<i>Snakebite</i>) | 62 Borough Rd, Middlesborough, Cleveland. |
| Steven (<i>Bed Bug</i>) | PO Box 2, Stonehouse, Glos. |
| Simon (<i>Missing Link</i>) | 60C Church Road, St Leonards-on-Sea E. Sussex. |
| Noel (<i>Tojo</i>) | SC #155, PO Box 27, Southport, Merseyside. |
| Carol (<i>Horseshoe 35</i>) | 29 Oak Green, Old Park Farm Est. Dudley. |

cards. If so, you really should rectify this as soon as possible. After all, this hobby is QSL card collecting and club cards are, of course, welcome and do help to fill your package up but, strictly speaking, these should be used *along-side* your own cards, *not* instead of them. There are many firms who cater for the QSLer; many advertise in this magazine and several, at least those who drop me a line from time to time, get mentioned in these very pages. Read the adverts and think seriously about it; everyone appreciates a nice personal QSL.

A letter in from Alan (*Red Monkey*) here tells me that he has been appointed as the UK representative for the Cupido QSL Club of Belgium, or rather *formerly* of Belgium, having moved to Rotterdam recently. For costs of membership, you'll have to drop Alan a line please. He also recommends the Dutch Trucking QSL Club of Rotterdam which has had

QSL CLUB ADDRESSES:

Atlantic Breakers Club
Mermaid DX-QSL Club

Sea Dragon DX QSL Club
Toucan QSL Club Int'

World DX Club

1 Sierra Tango DX Club
Dragonrider One

PO Box 73, Altrincham, Cheshire,
20 Beresford St. Shildon, Co
Durham.

PO Box 2 Sheringham, Norfolk.

PO Box 1500, Caracas 1010-A,
Venezuela, South America.

PO Box 284, Guernsey, Channel
Islands.

PO Box 314, Braintree, Essex.

c/o DR Club, 3 Tarn Villas, Cow-
pasture Rd, Ilkley, West Yorkshire,

or via the magazine.

its troubles in the past, due partly to the youth of a couple of its presidents, but, happily, now that it has been taken over by Fred (Isjco) the Club is well on its way again.

Back in the September issue I mentioned that another club had been taken over, or rather had had many changes in its structure and I said that membership to the World DX/QSL Group was open only to over 16s. Well, a letter from the Club has let me know that this has also changed; now any CBer/QSLer is welcome to join. Membership to the WDX (Guernsey) costs £5 plus five cards (cash or postal order) for which you can look forward to receiving your WDX No, certificates, ID cards, 10 Club QSLs, stickers, invites, newsletter, welcome letter, roster, RST code etc. A new issue of Club Card is available and shows the flag of Guernsey, in red and yellow.

Right, last month I said that I would start off an occasional slot this time, in which I would have a browse through the occasional club's package that I receive. This is *not* a "Club of the Month" spot, merely a more in-depth examination of a club's pack. As I've four or five tucked to one side, I guess I had better make a start! This time, the 1 Sierra Tango DX Club of Essex. The Club is run by Peter (1 ST 03) and was founded in May 1982 as an offshoot of the Braintree Breakers Club (a local one) and, as this received a lot of interest from QSLers, it was decided to open up the membership outside the immediate area.

Anyway, membership costs £5 (cash, not cheques by the way) plus a number of your cards. For this, you get a bulky envelope, very-well packed, consisting of your Unit No. and certificates, club roster, stickers, 20 club cards, 10 QSL certificates, exchange cards and invites, president's and vice-presidents' cards, tourist info etc. However, a club stamp is *not* included, but two different designs are available at £3 each. Also the Club QSL cards now include a couple of new designs. Details of prices of these are sent upon joining.

Just before I run out of room again, I'll do my best to slot in a few last names starting with a change of address here; George and Ann (*Snakebite and Fire Lady*) have moved to 162 Borough Road, Middlesborough, and they ask me to let as many people as

possible know; so consider it done. From Steven (*Bed Bug*) of Stonehouse comes a selection of cards of all sorts, with the comment that he QSLs 100%.

Also, he and Simon (*Missing Link*) of Sussex have mentioned something that I would dispute, being part of QSLing! They have drawn my attention to the problem that some people take the addresses from the mag for uses other than QSLing. The main ones which cause offence include political or religious groups. Obviously, no-one

can stop this practice, but if they want to waste their money posting "bumf" out to you, all you need to do is chuck it away, or mark it Return to Sender. Happily, I don't get much of this sort, as the people involved know that they are in the wrong in using *Citizens' Band* as their source and also they wouldn't like what I might have to say about them!

From SC #155, Noel (*Tojo*), of Southport, comes a pair of SC Cards showing an ancient Japanese warrior with some hieroglyphics; I never know from which direction to read them! And the final name for this month is from Carol (*Horseshoe 35*) who says that she has been having trouble with her post sent to her home AD, and is now using her mother's and asks me to pass same on.

Okay, that's it once more, if you want a mention, or have a problem or comment you want to make, drop me a line and I'll see what can be done. If you want a reply then please do enclose return postage *but* don't expect to see anything in the following month's pages. It does take a little time to go from my typewriter to turning up on the shelves. Also, if you are organising an event which will be of national (or international) interest, please do let me know *in good time!* That's it, take care 'til the next time.

Dragonrider One



QSL Meetings Contact Addresses:

April 5/6

Cutty Sark Poma Meet, Dave
Bradshaw, 16 Bradenham Ave,
Welling, Kent.

April 27:

GBQDC Meet, PO Box 5, Consett,
Co Durham.

May 10:

Tango Papa (Eyeball '86), PO Box
13, Southport.

In all cases, please send a SASE for ease of reply when writing
to any of the above addresses.

CB CLUBS ~ GETTING IT RIGHT

Although a few CB rigs managed to find their way across the Atlantic in the early seventies, it was not until the latter half of the decade that public interest in CB as a means of communication created a real demand. The only problem was the fact that, although there were dozens of American dealers only too willing to reduce their own stocks by meeting this demand, importation into Britain was illegal and anyone found bringing rigs in faced pretty stiff penalties.

Nevertheless, the number of rigs in circulation kept on growing, as more and more people discovered a new means of communication and an entirely new interest. Here, for the first time, was a relatively inexpensive means of keeping in touch with the wife, or arranging to meet friends and of talking to a host of people you had never met. Never mind the fact that it was just a little illegal. After all, nobody was doing any harm by just talking.

Unfortunately, those responsible for ordering the pattern of our lives saw things somewhat differently. They appeared to concern themselves with some strange phenomena called breakthrough and harmonics and generally went about trying to make life difficult for people who wanted nothing more than to be left to converse with one another in peace. So, maybe the rest of society did not understand much of the lingo, but who cared?

It was this unfortunate clash of interests which led to the formation of Britain's first CB clubs. On the age-old principle of 'united we stand', small groups of breakers joined forces, with the common aim of attempting to change the establishment's attitude to their hobby and to offer the maximum protection from official harassment. Often started by small groups of under 20 breakers, it was not very long before some of these pioneering clubs, most of which are now, sad to say, defunct, boasted memberships in excess of 2,000 and the biggest problem faced by most of them was the recurring need for bigger and bigger venues.

Although many clubs only met once a month, it was commonplace to enrol anything up to a hundred new members on the evening of a meeting

Over the years, we've all seen many CB clubs come and go. Keith Townsend explains how to run a successful club

and it was not long before the better organised groups were in a position to mount serious opposition to those who claimed that legal CB would spell the end of civilisation as we knew it. Many organised large rallies, processions and protest marches and I, along with members of my own club, had the pleasure of spending four whole days on a club stand at the Custom Car Show, where we were joined by a visiting US marshall who was only too willing to extol the virtues

Below: The massed ranks of CB clubs which brought about legalisation



of CB radio to all who passed by.

The primary purpose of the stand was to gather signatures on a petition which ultimately exceeded 6,000 names and which was later presented to the then Home Secretary. We were more than a little surprised to find ourselves dealing with requests for membership from literally dozens of people with no previous involvement in the hobby and, by the end of the fourth day, membership had increased by almost a thousand. These heady days have gone now and the whole CB scene has changed dramatically. Never again will we see clubs whose members could be counted in their thousands but the CB club scene still thrives, though in a somewhat different form.

Legalisation introduced a completely new *raison d'être* to CB clubs. Gone was the need for protection and for mass publicity and with it, many of the members, for some of whom legalisation came as an anti-climax. Those clubs which survived the transition were left, instead, with a small nucleus of those who were either seriously interested in the hobby, or simply wished to remain in contact with the many good friends they had made through the club. At the same time, a



“There are a wide variety of aspects to a hobby such as CB, and different clubs cater for different tastes”

whole new batch of clubs came into existence, most of which had their roots not in the pre-legalisation scene but among the large numbers of breakers to whom the issuing of a licence had introduced a new interest. Many were eager to join simply because they knew little or nothing about what soon proved to be quite a complex subject, others joined simply to make new friends and a few joined because they had either the technical or administrative expertise which was to prove so valuable to their fellow members.

Thinking back to the beginnings of my interest in CB, it seemed so easy then. All we had to do was to form a club. Our only difficulty being that none of us had any previous experience of organising anything more ambitious than a coach trip to Blackpool. So, what would we need? Obviously we must first elect a committee but, once elected, what would it do? Certain requirements were self-evident. Clearly we were going to need a chairman, secretary and treasurer, not to mention a few non-executive committee members to keep these three from each other's throats, and that is just how most early clubs came into being. It was only a very short time before we discovered the wide variety of tasks which the day-to-day running of a club would entail, so, if you are thinking of starting a CB club in your area, perhaps you can profit from a few of our mistakes, as well as a few we did not make.

Priority

The first priority of any club, whatever its basic interest, must be to define its primary function. There are a wide variety of aspects to a hobby such as CB and different clubs cater for different tastes. QSL clubs, for example, are run largely by post and can be well organised by a very small band of enthusiasts. It is equally easy to run a club whose main function is to provide a regular opportunity for breakers to get together, chat and do little else, but, in my opinion, for a club to be really worthy of the title it should offer its members a great many more options, each of which will require some degree of organisation.

If membership is large enough and the funds can stand the initial outlay, many clubs have successfully operated their own 'shop', from which members can purchase a variety of CB gear, as

well as a few promotional goodies at discount prices. With proper organisation, this can result in a considerable saving for members and a modest profit for the club funds, but someone must take responsibility for maintaining its stock level and accounting for its funds. Even in cases where, for one reason or another, such an arrangement is impractical, you might be able to negotiate a discount for your members with some of the local dealers. You might even consider offering a special QSL card, available only to your members. If so, you have just created another job, since the cost of sending cards to your members can be considerably reduced by the simple acquisition of a post office box number. Since there is little purpose in a box which is never opened, someone, the QSL manager, must undertake to distribute its contents among the members on a regular basis.

There is, among a certain sector of the CB community, a voracious thirst for greater knowledge and among the better attended functions at many clubs have been occasional talks by experts on various aspects of radio communications. Throughout some ten years in CB, I have attended a number of these events and have never failed to be interested in their content but they require some setting up. To offer your members this well-worthwhile facility will require the services of an events secretary, who is prepared to give a fair deal of his time to contacting the various organisations and individuals who might be persuaded to share their knowledge and experience and to ensuring that they arrive in the right place at the right time. Not that the duties of an events secretary need stop at that. He might also like to consider setting up the occasional fox-hunt or a guided tour of the local brewery and how about the club's float in the annual carnival?

On the technical side, many clubs are fortunate to count among their members at least one person with the skill and apparatus needed to repair some of the more common faults to which rigs are occasionally prone. If he can be persuaded to act as the club's resident rig doctor, your club will be in a position to offer yet another benefit to its members.

Again, depending upon your membership, you might like to consider trying to do *our* job. Many a CB club has produced an excellent member's magazine with little more than a reasonably literate editor and a cheap printing or copying machine. Even a single-page newsletter has the advantage of keeping the membership informed about forthcoming activities and events and, with a little ingenuity, a few local traders and those members who have a service to offer might be persuaded to finance such a venture through advertising. Try conning one or two of the members into submitting the occasional article.

Financing a CB club is nowhere near as difficult as it may at first appear. You must, of course, first decide on the level of membership fee to be charged and how often it will become

renewable. There is some attraction in the idea of a once-and-for-all 'life' membership fee, which certainly simplifies the administration but, unless new members continue to join at a rate exceeding the club's expenditure, the day must come when the funds will run out and, although it requires a little more work, the collection of an annual subscription at least allows for the recouperation of funds used during the previous year. One possible incentive to members might be to offer a discount on their renewal, based on the number of new members they have introduced during the year.

This brings into focus two more very necessary officials, the membership secretary, whose duties will include enrolling new members and making sure that renewal notices go out on time and the treasurer, who will have perhaps the greatest responsibility of all. Not only should a treasurer have a good head for figures and an ability to produce them at the drop of a hat, he must also be willing to give up his time to ensuring that the club's financial affairs are in order at all times. By far the majority of treasurers are honest, trustworthy folk but a few clubs have had the unfortunate experience of having elected one who has subsequently converted their funds into his own personal benevolent fund and it is not at all unreasonable to require more than just a single signature on club cheques, not only to prevent fraud but as a means of ensuring that honest expenditure is wise expenditure.

On the subject of money, it must also be said that a very large number of CB clubs have raised some very impressive amounts for their favourite charities and I recently heard of the perfect way to show the world at large that all the money ended up where it was intended to go. One enterprising CB group which has been responsible for a number of fund-raising events invited a member of the charity in question, together with their local vicar,

to act as members of a small sub-committee, responsible for the smooth running of their charity fund. Not only is everything open and above board but demonstrably so.

Whilst looking at the overall club scene we should not forget that there are still a few clubs whose main aim is to try to widen the specifications under which we are obliged to operate. After more than four years of legal CB there is still room for considerable improvement in the service and many of the suggestions already adopted by the DTI have come originally from user groups. I think even the hardest must now be prepared to admit the facts that a legal SSB service is even less likely now than it perhaps appeared a few years ago, but there is still some worthwhile campaigning to be done and this is an area in which all clubs have a part to play.

Specialist

Then, of course, there are that small band of specialist clubs dedicated to monitoring for emergency traffic. Running such an organisation requires exceptional organising skills if they are to prove effective but the last thing we need in this area is a proliferation of separate groups, each doing its own thing without regard to or for any other and if your interests lie in this direction you would do well to consider joining one of the already well-established groups. Although a few seem to have gone overboard, sporting paramilitary style uniforms and acting for all the world like Fred Karno's Army, the genuine monitoring organisations have never lost sight of the fact that they are there primarily to pass on calls for help and they deserve everyone's support.

To return to our main topic, that of organising a CB club. For things to run smoothly you will need to hold regular committee meetings and these can, on occasion, become unruly affairs when strong differences of opinion

arise. For this reason, it is essential to elect as chairman someone whose personality is strong enough to maintain the necessary equilibrium throughout the most heated debate and whose sense of humour is sufficient to cool everyone's temper. A good secretary is also essential at all such meetings. Someone should make an accurate record of all decisions and recommendations and ensure that they are circulated among his colleagues. Be prepared to accept the fact that you will not always agree on every issue and avoid the trap of becoming bogged down in endless discussion on minor topics. One ploy which many clubs have adopted as a means of avoiding embarrassment is to elect a committee consisting of an odd number of members, thereby avoiding the likelihood of tied voting, other than when one member is absent, in which case the chairman usually has the casting vote.

Being involved in the running of a CB club has its pitfalls but it can be very rewarding, though certainly not in financial terms. Unless the definition of who is entitled to claim out of pocket expenses, such as the cost of telephone calls and postage and the circumstances in which they may be claimed, are laid down from the start it is very easy to find yourself the poorer. Neither can you expect a great deal of thanks for your efforts. As I said before, much of the work goes on behind the scenes and very few people realise just how time consuming it can be. Add to that the fact that there is always someone who disagrees with the way you are running things and it can seem like a pretty thankless task. There are hundreds of people up and down the country who reckon they could do the job better and, who knows? Maybe they are right. Despite all the pitfalls, helping to organise a CB club can be great fun, especially when you see how it can be of benefit to the entire local CB community. Why not give it a try?



Most clubs regularly arrange visits to other clubs

ES 880 ECHO CHAMBER

**Importers
and Distributors**



SHARMAN'S WHOLESALE

DISTRIBUTORS FOR:

maxcom

DNT



CTE INTERNATIONAL[®]



Extensive ranges
of CB equipment in
stock at the best prices for you!

STRICTLY TRADE ONLY

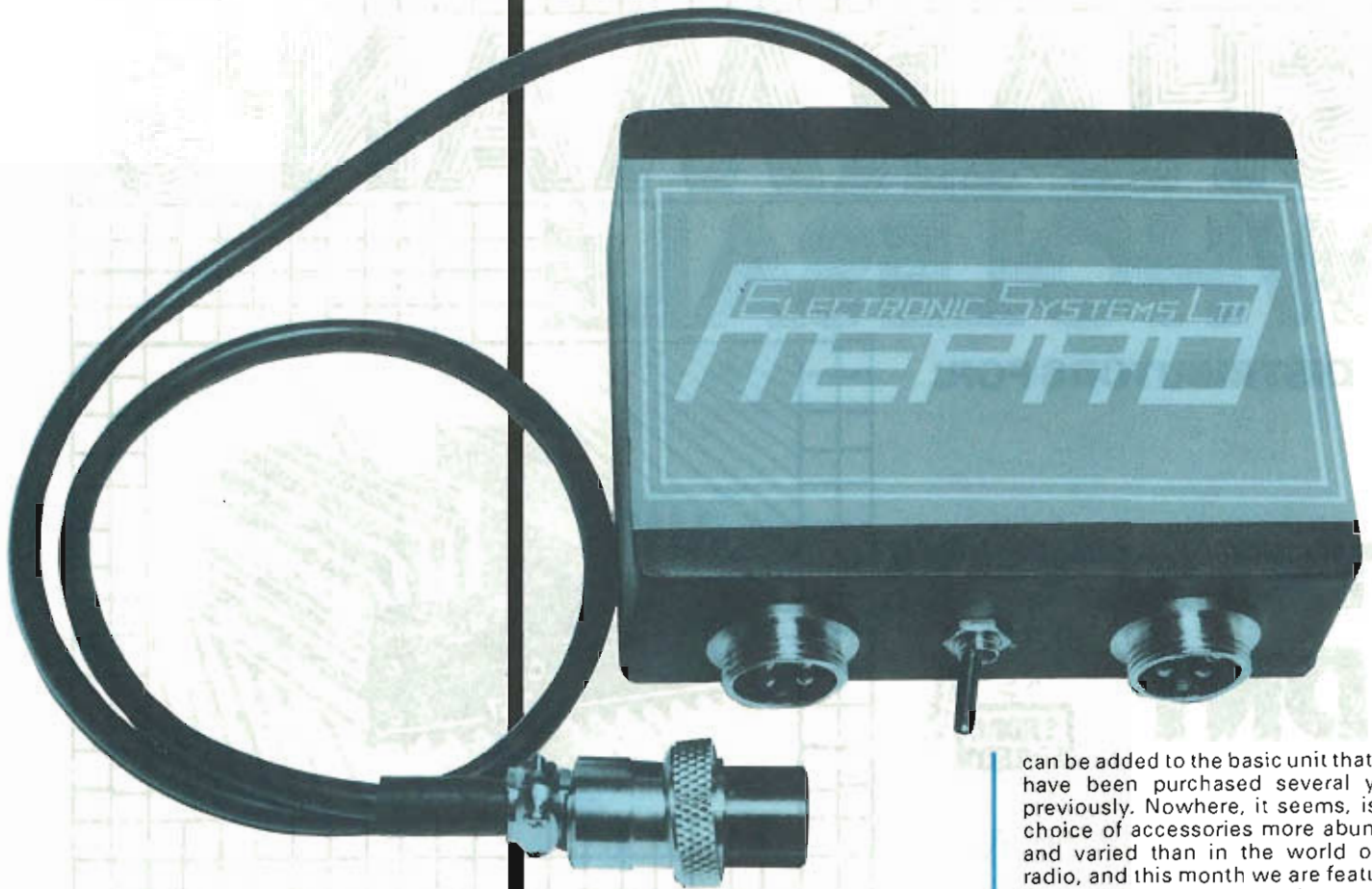
**CTE Whole new range of
power supply & linear
amplifier now available.**

**3 BURY NEW ROAD, MANCHESTER M8 8FW
TEL 061-834 9571 TELEX 665446 Sharma G**

RING NOW FOR OUR SECURICOR DELIVERY DETAILS!

Brian Wright takes a look at three new accessories from an all-British company

REPRO REVIEW



Repro Electronic System's new mike switching unit

With many modern items such as cars, audio systems and computers, it would be prohibitively expensive and complicated to include all of the possible extra facilities and variations in the basic unit. The customer would have to pay for many luxuries that he or she did not require and the design would be constantly changing as technology improved. The obvious answer, of course, is to produce a model with all of the essential items and also, perhaps, a deluxe model with a few extras included and then provide the many other variations as add-on accessories.

This has the advantage of allowing the customer to add facilities in order of personal preference and as they can be afforded. Another advantage is that the very latest design of an accessory

can be added to the basic unit that may have been purchased several years previously. Nowhere, it seems, is the choice of accessories more abundant and varied than in the world of CB radio, and this month we are featuring three useful accessories from a new British company called Repro Electronic Systems Ltd.

The first item is a neat little mike switching unit to enable the user to switch from one mike to another without the need to disconnect the mike plug. This may not sound a very useful item at first, but I have lost count of the number of times that I have heard a breaker say "Hold on a moment while I plug in the other mike". This is then followed by the usual delay while the breaker wrestles with the tangled leads and plugs in the other mike, only to have to repeat the process when he decides to change back to the original. Well now this can all be done with the flick of a switch. Another use could be for the breaker who uses a harsh-sounding mike for DXing and a softer mike for local copies.

The mike switching unit measures 90mm wide x 30mm high x 70mm deep and has two mike sockets (4-pin) and a small switch on the front panel.

At the rear is a 500mm long cable with a 4-pin plug fitted for connection to the rig mike socket. The unit has two sticky pads on the base for fixing, if required, and is supplied wired for Cybernet chassis (yellow disc on rear) or for Uniden chassis (blue disc). The switching unit is of smart appearance, is well-made and is housed in a black plastic box. It retails at £9.75.

Another very useful piece of equipment produced by Repro Electronic Systems is the SP 1001 Speech Processor. A good speech processor such as the SP 1001 is a most useful device to have permanently connected to a rig. Once set up correctly, it can really improve the readability of your modulation on difficult long-distance copies, on strong local copies and are best switched out under these conditions. The SP 1001 has the facility to be switched in and out and is therefore very convenient to use.

This smart and well-made unit is housed in a metal case, sprayed silver hammer finish, with a light blue front panel with white markings. The case measures 150mm wide x 50mm high x 80mm deep. On the front panel (from left to right) is a 4-pin mike socket, the 'on' or 'bypass' switch, a knob to set the limiting, an LED to indicate the amount of limiting, the mike gain knob and finally the power on/off switch with an indicator LED above. At the rear are the power lead and output lead with a plug fitted for connection to the rig mike socket. As with the mike switching unit, the SP 1001 is supplied wired for either the Cybernet or Uniden chassis and is indicated by the yellow or blue disc on the rear face. The SP 1001 is powered from the normal 12 volt supply via the power lead at the rear and the circuit is fitted with reverse polarity protection to prevent damage if accidentally incorrectly connected.

Normally, speech processors require a great deal of patience in setting up and, no doubt, the SP 1001 would benefit from very careful adjustment for optimum working, but we found this unit very simple to set for a



Repro's Regulated Voltage Dropper

quite impressive increase in modulation strength. On our sample, we simply set the mike gain as instructed and then set the limit control until the limit indicator flashed reasonably bright on the signal peaks. Later tests proved that we had reached almost the best setting at the first attempt. Both of the knobs have a smart aluminium skirt (numbered 1-10) so that if a note is made of the correct setting, they can easily be reset if accidentally moved. A brief look inside revealed a neatly-assembled fibreglass PCB and tidy wiring. The Repro SP 1001 Speech Processor is good value at £34.50 and well worth considering if your modulation is weak or if you go for those distant copies.

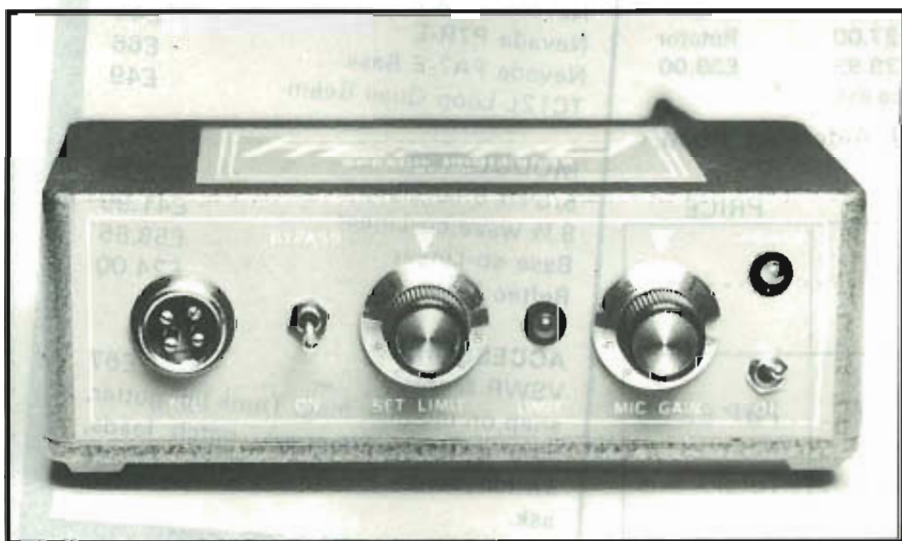
The third accessory from the Repro Electronic Systems Ltd range will be useful to lorry drivers, boat owners and other groups of people who find themselves confronted with a 24 volt DC power source and 12 volt equipment.

If you belong to one of these groups of people, then the Repro 24v to 12v Regulated Voltage Dropper could solve all of your problems. This unit is suitable for powering CB rigs, car radios, radio/cassette players, 12v televisions etc, providing the total load does not exceed 5 amps, which should be more than enough for the above items, unless the CB rig has an excessively high output power or has a burner connected.

The voltage dropper is very robust and well-made and consists of a large-finned heatsink fixed to a small diecast box which, in turn, is fitted to a large thick metal plate for mounting. The box is sprayed silver hammer finish and the plate and heatsink are black anodized. The whole assembly is very solid and acts as a heatsink to ensure good cooling — always a problem with this type of device.

Again, a look inside revealed professional standards of construction on a fibreglass PCB. The output is regulated at around 13.5 volts which is roughly the voltage normally encountered in a car with a fully-charged battery and stabilization was extremely good on our sample. Under a load of 2 amps (more than enough for the average rig), the fluctuation or drop was barely detectable and was, in fact better than our laboratory power supply under the same load — quite impressive. The overall dimensions are roughly 110mm x 55mm x 100mm. The price of £32 for the Repro 24v to 12v Regulated Voltage Dropper may seem a little high for a seemingly simple device, but a fair amount of metalwork and circuitry has to be involved if good regulation and reliable operation are to be achieved at current levels of up to 5 amps. We would, therefore, consider this to be quite good value for this particular unit.

All of these accessories are British-made by Repro Electronics Systems Ltd, 251a High Street, Eltham, London E9.



The SP 1001 Speech Processor

NEW AND BRITISH!

Four Great New British Products from Repro Electronic Systems Ltd.

A new British Company giving jobs to British Workers!!

LINEAR AMPLIFIER MIKE SWITCH BOX SPEECH PROCESSOR VOLTAGE DROPPER



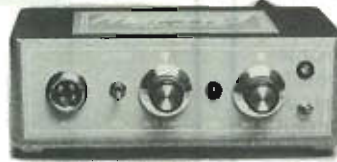
MODEL LA/2502
25 Watt Switchable Linear Amplifier with 'supply on' and 'Power on' LED indicators. 26-30 MHz. Complete with instructions. Made in UK.

£22.95
incl. P&P



MODEL MS/2-1
Mike Switcher Box. Enables you to switch in and out two different mikes on one rig without plugging and unplugging. Supplied ready wired for your rig. Made in UK.

£9.75
incl. P&P



MODEL SP/1001
Speech Processor. Specifically designed for the UK market by Repro. Its 'Speech Power' is devastating. Complete with operating instructions. Supplied ready wired for you rig. Made in UK.

£38
incl. P&P



MODEL DV/1224
Ideal for trucks, coaches etc. 24v to 12v voltage dropper. Current rating 5 amps. guaranteed — unlike other makes which really only give 2 amps. Supplied complete with fitting instructions. Made in UK.

£34.50
incl. P&P

And there will be more new products from Repro soon.

AVAILABLE FROM THESE DISTRIBUTORS — NOW!

Westmount Communications,
251A, High Street, Eltham,
London SE9 Tel: 01-859 5017

J. A. Whight Electronics Ltd,
816 London Road, Southend-on-Sea.
Tel: 0702 714102

Access/Visa/PO/Cash — Sent by return. Cheques - Please allow 7 days clearance.

All products fully guaranteed - All parts British made and easily servicable.

Trade Enquiries - Contact Repro Electronics Systems 0474 332101

Midland Radio Centre,
133 Flaxley Road, Stechford,
Birmingham
Tel: 021-784 4928.



AL 4200
Compressor
Base Mike.

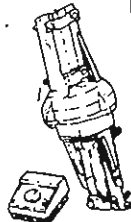
£32.95

GUILDFORD CB

TEL: GFD 574434



All Accepted



| | | |
|--------------------------|--------|---------|
| Altai Echo Power Mike | £19.90 | Medium |
| ES 990 Echo Box | £45.00 | Duty |
| RA 201 Reverb Box | £27.00 | Rotator |
| Harvard 4W 40ch Handheld | £79.95 | £38.00 |

Just send an SAE for your free 1000 item price list.

MAIL ORDER. To: Guildford CB, 34 Aldershot Road, Guildford, Surrey GU2 6AF.

| QTY | ITEM | PRICE |
|--------------|------|-----------|
| | | |
| Name..... | | P&P £2.00 |
| Address..... | | Total |

934

| | |
|------------------|------|
| RIGS | |
| Cybernet Delta 1 | £355 |
| Commтел NP1 934 | £375 |
| Reftec | £275 |
| Uniace 400 | £299 |

| | |
|----------------------|-----|
| AERIALS | |
| Nevada P7M-E | £44 |
| Nevada P7R-E | £44 |
| Nevada PA7-E Base | £66 |
| TC12L Loop Quad Beam | £49 |

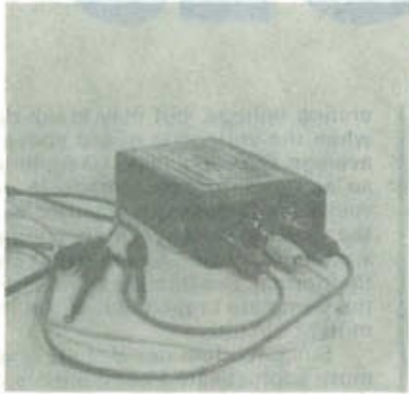
| | |
|--------------------|--------|
| MODULATOR | |
| 5/8+5/8 co-Linear | £12.35 |
| 8.½ wave co-Linear | £41.95 |
| Base co-Linear | £58.85 |
| Reftec Mag. | £24.00 |

ACCESSORIES £67
VSWR Meter
snap on mounts, mag, Trunk lip, gutter, stud mounts, Pre-amps, patch leads, switch boxes are all available. Please ask.

MIDLAND RADIO CENTRE

THE LARGEST STOCKIST OF CB RADIO EQUIPMENT
IN THE MIDLANDS

Model TT/9003 Automatic In Circuit Transistor Tester.






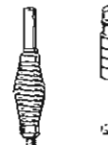



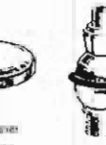
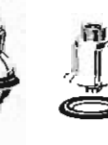

























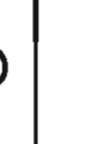
The Repto Automatic Transistor Tester is an invaluable aid to the technician, and hobbyist alike. The TT/9003 is unique in that, without the faulty circuit board being powered up, both PNP and NPN transistors can be tested whilst they are still in circuit, without the use of any other ancillary equipment. Until now it has been necessary to remove the component for testing at the work bench, a time consuming and repetitive chore. Comprising a compact unit measuring only 12 x 7 x 3cms and operated by a standard 9 volt battery, the TT/9003 can be used by anyone with an elementary knowledge of electronics. £38.85



Model LA/2502 Linear Amplifier.

A 25 watt switchable Linear Amplifier with 'supply on' and 'Power on' LED indicators. 26-30MHz. Complete with instructions. Made in UK. £22.95

(Our list of Antennae and Accessories is vast. Listed below is just a few of the many lines kept in stock. If we have not got it in stock we will get it for you.)

| | | | | | | | | | | | |
|---|--|---|--|--|--|--|--|--|---|--|---|
|  Heavy Duty Chrome plated swivel ball mount 18010 |  Heavy duty Chrome plated shock spring 18011 |  Heavy duty Cadmium plated shock spring 18012 |  Stainless steel shock spring and whip adapter for base loaded antennas 1/4-20 thread 18013 |  Quick disconnect adapter for bases, springs and mounts that accept 3/8-24 thread 18016 |  Quick disconnect adapter for Perwader & Coil-in-cup antennas 18018 |  Stainless Steel Heavy duty magnet 18019 |  Cowl mount for base loaded antennas Accepts PL-259 connectors 18020 |  Mount and adapter for base loaded coils 3/8" Snap-in 18021 |  Mount and adapter for base loaded coils 3/4" hole mount 18022 |  Heavy duty chrome plated bumper mount 18110 | |
|  20' RG-58/U coaxial cable with PL-259 connector one end and terminal lugs on other end. 18111 |  Trunk lip mount with base fittings for base loaded antennas 18210 |  Trunk lip mount with adapter for 3/8-24 thread whip 18211 |  Stainless Steel trunk groove mounting brackets 3/8" hole 18212 3/4" hole 18213 |  Chrome plated gutter clamp 3/8" hole 18310 |  Chrome plated spring gutter clamp 18311 |  Stainless steel Corvette mounting bracket 18312 3/8" hole 18317 3/4" hole |  Volkswagen Pacer and Chevette mounting bracket 3/8" hole 18313 |  Chrome plated spring gutter clamp with 3/8-24 threaded mounting nut 10' RG-58/U PL-259 connector 18314 |  Stainless steel tiltable gutter clamp 18315 3/8" hole 18318 3/4" hole |  Stainless steel camper bracket 3/8" hole 18318 |  Chrome plated motor mount bracket 3/8-24 female threaded 18410 |
|  Chrome plated motor mount bracket with fitting for base loaded antenna 18411 |  Chrome Plated Motor Mount Bracket with insulated assembly 3/8" - 24 thread 18412 |  Magnet mount with fitting for base loaded antenna includes 24" RG-58/U PL-259 type connector 18510 |  Adapter to mount 3/8 24 threaded whip on base loaded mount 18610 |  Stainless steel universal hatchback mount 18710 3/8" hole 18711 3/4" hole |  Insulated gutter clip for whip hold-down 19010 |  Replacement Base load coil, spring and stainless steel whip 19011 |  Car Wash raincoat to protect base mounts (6 per card) 19012 |  Hole Plug (6 per card) for 3/8" hole 19014 for 3/4" hole 19018 for 7/8" hole 19020 for 15/16" hole |  Replacement insulated assembly for bumper mounts 3/8"-24 thread 19015 |  Two installer's "A" wrenches for use on roof mount and trunk mount antennas 19017 |  Phasing harness for dual mounted antennas 19510 |

NOW AVAILABLE FROM:-
MIDLAND RADIO CENTRE,
133 FLAXLEY ROAD,
STECHEFORD,
BIRMINGHAM
TEL: 021 784 4928

Mail Orders Welcome sent by return.
Cheques Please allow 7 days.

NAME.....
ADDRESS.....
.....

TEST METERS AND TOOLS

There are many useful pieces of test equipment, although to own and operate any of them requires some skill and knowledge of the circuit in question. A lot of the equipment available, and discussed here, is both inexpensive and simple to operate, whilst other items are far outside the reach of the average prober's pocket. It is of course dangerous to attempt to tamper with any electrical apparatus, irrespective of the voltages present. It is always useful to have a full circuit diagram, or at least a block diagram, before undertaking any maintenance work, to avoid further damage to the already troubled equipment.

Perhaps the most useful piece of equipment to have on the workbench, certainly in terms of functions versus pounds, is a multi-meter. Manufactured in various forms, from the miniature, pocket type, to the large Avo majors, and including some quite superior digital models, displaying an accurate figure in an LED or LCD form, with protection circuits including "self-ranging" to prevent damage caused to some other models.

Versatile machines they are — and hard to live without. More than one volt-ohm milliammeter can normally be found on the test bench. Vacuum-tube voltmeters serve the same functions but because the vacuum types embody electronic circuits, these present a higher impedance to the circuit being measured. High impedance is important if voltages being measured are not to be affected by the presence of the test instrument while the measurements are being taken. These vacuum-tube meters are rapidly being replaced by the transistorised digital meters, which do have several advantages over the older types.

Nevertheless, these digital meters do not show rapid changes in voltages, which would show up on a more conventional needle-type meter. Yet, inexpensive types of these digital meters tend to be no more accurate than some very reliable analog ones; and their response time is very slow. Truly ideal would be a meter which employs both the digital readout and needle meter movements. Perhaps anyone contemplating using such a device for CB troubleshooting should have a convenient portable type for use in the field as well as a more sophisticated model for bench work.

Trevor Butler looks at radio test equipment — the tools of the rig doctor's trade

One danger of using multi-meters in strong RF fields, is that the pointer can deflect owing to the effect of the RF field upon the circuit even if the meter is not directly connected to the transmitter. It is useful, before taking such measurements, to connect one test lead to the other and to establish an RF field, and to note whether the pointer moves from its position.

An important item to have on the workbench, although its use out in the field will be limited, is a good, stabilised, power supply. Preferably one with current and voltage limiting and incorporating some form of metering. A variable form of power supply is very useful when troubleshooting, so that measurements can be made with different working voltages. A higher voltage can be used when trying to trace an elusive component problem. It may behave properly, or erratically, when supplied with the normal op-

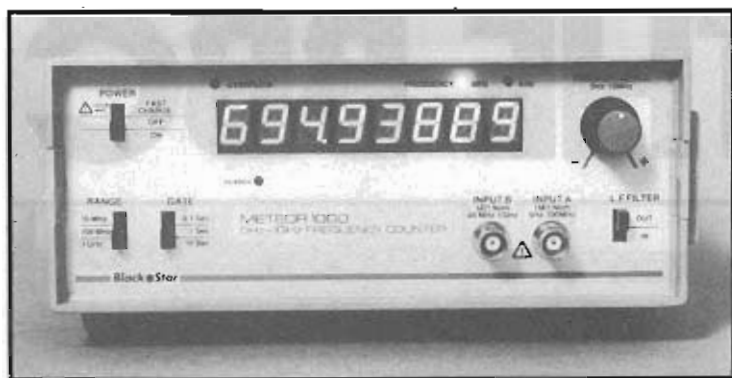
erating voltage, but may break down when the voltage is raised above the average. Care should be taken, though, so as not to cause damage to other vulnerable components when increasing the working voltage. Often, supplying a momentary surge, somewhat above the normal, is sufficient to precipitate the complete breakdown of the intermittent circuitry.

Since modern day circuits employ more sophisticated components, and the valve has, to a large extent, been replaced by the transistor, any modern workbench should have access to a transistor tester. Several designs have been published in various constructional magazines over the years. More expensive types are available on the market under many trade names. They are useful because, although many components can be tested-out using the multimeter, absolute quality checks of solid-state devices can only be made using a transistor tester, or better still, a curve tracer.

Because transistors are usually soldered into printed circuit boards, it is inconvenient to remove the devices from the board to determine if they are good, and since the fact that any excess heat applied during de-soldering and re-soldering may damage the component beyond recognition, to use an in-circuit tester is much safer. Some ICs are very expensive, while others very hard to find. The in-circuit

An impressive range of test equipment, pictured here at SSE's headquarters in Southampton





A frequency counter can be invaluable to a rig doctor

testers normally have flying leads, to be connected to the component, rather than a slot, into which the device, once removed from the board, should be placed. Operation is simple, with selection switches to tell the measuring unit the type of device and also to record the polarity.

Apart from a multimeter, the next most singularly useful item is perhaps an oscilloscope — for it can be used to determine a number of factors and used in differing circumstances, yet in essence only voltage is measured. While there are many instruments an engineer can learn to live without, the oscilloscope doesn't fall into this category. With correct usage it can, perhaps, be regarded, as the most valuable instrument in RF servicing.

At its heart is a cathode ray tube, with plates positioned to deflect the electrons into either horizontal or vertical directions, or in both directions simultaneously. To get substantial amounts of deflection when minute voltages are applied to the inputs, vertical and horizontal amplifiers are built into the oscilloscope's circuitry.

The scope can be used to ascertain the frequency of a signal using what is called a Lissajous pattern. Simply apply the signal at the unknown frequency to the horizontal input and the signal from a calibrated frequency generator to the vertical. Adjust the controls until a circle, straight line or an ellipse is on the screen. The frequency produced at the generator is then equal to the one in question.

Modulation percentage is another variable which can be measured by an oscilloscope, although to do this the scope must be able to reproduce RF frequencies correctly. Some of the inexpensive models, rated up to 35MHz, will therefore be adequate to cover the 27MHz CB band. Most oscilloscopes do not have amplifiers with sufficient bandwidths to display the 27MHz RF of CB band, yet the modulated display is still possible with the use of an adaptor connected directly to the deflection plates of the CRT.

Any scope can be regarded as a voltmeter; should a sinusoidal signal be applied to the vertical input while a sawtooth of the proper frequency is at the horizontal, the relative voltage at each instance in the cycle are displayed. Voltage from the crest to the peak of the sine wave is the peak-to-peak voltage.

It has already become clear that some form of signal generator is required to service equipment. Be it an

audio type for use with hi-fi and audio equipment or an RF generator to simulate the signals encountered when dealing with items of radio equipment.

Crystal oscillators in transmitters are frequently at fault when the receiver or transmitter section does not function. Proper performance may be restored by injecting a signal from an RF generator into the affected circuit, possibly at the mixer stage, as a substitute for the signal from the oscillator. Any improvement in reception would then indicate that there is a fault, the crystal itself often proving defective. A more important function of a signal source is to supply RF to align the transmitter and receiver stages.

Signals

Audio signals are useful when checking squelch circuits and even microphone stages and audio amplifier sections. Many RF types of generators will also provide an adequate source of AF, whilst with others, the additional use of an AF generator will be required. Although useful to have an audio generator, its applications to CB servicing are limited, and this tends to be one area where a home-construction project can be adopted. Many easy-to-construct ideas for AF generators have appeared in the specialist press.

In tandem with signal generators come frequency counters — indeed each can be used to check the other. These prove the best method of checking a frequency, and the digital versions are preferred. Several models incorporate a feature will allow for some overflow. This will expand what appears to be a limit in the readout, to allow for more significant digits by suppressing the first few to extend the overall readout. This may be important when regulations stipulating the accuracy of the frequency standard are such that other counters would be inadequate.

When considering generators and counters it is sometimes assumed that precision is the order of the day, although there will be circumstances where a recording of just order of magnitude will suffice in cases of some troubleshooting. In such cases, a dip meter may be the answer, certainly less expensive, and again available as a home construction project. A dip meter embodies a resonant circuit, tunable over a wide range, RF-wise, with one element of the circuit, the inductor, protruding from the case. RF

fields are then absorbed by this coil, which may be changed to adjust the resonant frequency of the circuit. Such frequencies may be read on the front-panel dial — the pointer will deflect and as deflection is proportional to the RF voltage, there is, available in the dip meter an RF voltmeter as an internal part.

The prime function is to determine the resonant frequency of a circuit, the dip is most pronounced when the frequency generated by the instrument is equal to the frequency under test. When not in an oscillating mode the coil can be used to absorb energy from a circuit emitting RF. Thus, the instrument is useful for locating a defective resonant circuit or an inoperative stage in a transceiver. These dip meters can also be used to check the resonant, and therefore operating, frequency of an antenna. Used properly, a wavemeter will pay for itself in time saved.

Another very useful item, and one which can be found on many a second-hand shelf, is an RF wattmeter. The basic function of the transmitter stage is, after all, to generate RF power for radiation into the ether, and ultimately to the receiving station. Several instruments are available to measure RF power, yet the Bird Throughline has for many years been adopted, and accepted, as the standard by the service and RF design industry. When used with its various interchangeable plug-in elements on the front panel, the device is capable of indicating RF signals up to a power of 5kW over a frequency range of some 2 to 1000MHz and even beyond. For CB applications, element 10A is ideal, indicating up to 10 watts output with a five per cent accuracy on frequencies in the range 25 to 60MHz. The meter is intended to be coupled between transmitter and antenna, and when used on the workbench, some form of dummy load must be plugged in to the meter in place of the aerial.

One piece of test gear almost everyone in the field of servicing would like to own, yet perhaps few can gain access to, and even less can afford, is an RF spectrum analyser. Many of the "big" names in the electronic test equipment manufacture such equipment. The main aim is to analyse a particular part of the RF spectrum by routing a signal into the input which, in turn, then displays onto the screen all the transmissions found. It is usual to see the main carrier frequency, very strong, surrounded by the other spurious, weaker signals. It is possible to determine their frequencies together with the strength, and thus whether the transmitter is within specification.

Another useful application is to check the accuracy of the Intermediate Frequencies of the receiver stage by probing the particular part of the circuit in question. Specification is an important consideration when adjusting or aligning equipment. There are strict guidelines in force under the MPT regulations for CB radio and it is essential in order to comply with the licence conditions, to ensure that they are met.

CB AT THE BBC

The recent BBC TV Children In Need Appeal raised lots of money for the underprivileged. Keith Townsend checks out how CB helped to boost the donations

Guaranteed from the outset to be a runaway success, the 1985 version of the BBC's Children in Need Appeal surpassed the expectations of its organisers yet again. Even before transmission ended, the fund had reached the staggering and unprecedented total of £2,431,085 in pledges, with over two million pounds having reached the bank at the time of writing and still the money is coming in. BBC Executive Producer, Mark Beechwood, told me: "Ever since the first Children in Need Appeal was broadcast in 1980, the final total has doubled the amount pledged during transmission and if this trend continues we can expect to amass something in the order of £5 million by the time the Appeal closes."

Invariably a very special event, the 1985 pre-Christmas extravaganza, hosted, as ever, by the indomitable Terry Wogan and supported by just about everyone who is anyone in the world of sport and entertainment, received a significant boost as a result of the efforts of four young members of a Warwickshire CB club, the Godiva DX Group, who spent a chilly 24 hours parked on the forecourt of Birmingham's Pebble Mill TV studios in a successful attempt to raise more than a thousand pounds for this most deserving of causes.

With a lot of help from their friends, this intrepid quartet arrived just before midnight on Thursday, November 24th, to begin a marathon modulation throughout what was to prove a wet and cold Friday, during the course of which they were to contact no less than 400 stations over an incredibly wide area. This, despite the fact that the geography of their surroundings was far from ideal for high frequency transmission. A bit of support from local breakers meant that they were able to contact stations as far away as Southampton, with stations within a 30 mile radius of Birmingham queuing up to work them.

Organiser Tim Beaumont took turns on the mike with Ian Sweatman, ably



Snooker star Steve Davis visiting the Godiva DX Group's station

assisted by Richard Spencer and the lovely Dawn Rice, who did a great job in logging every single contact. Not an easy feat when stations are piling up. Contacts were inevitably brief, being, for the most part, confined to information about the event and the way in which breakers could support it by sending their donations to a Coventry Box Number dedicated to making each and every one of them just that bit poorer in a worthy cause.

I arrived at Pebble Mill shortly before lunchtime on Friday, just in

time for Pebble Mill at One, to discover a scene of organised confusion. For a start, the CB station was not where I had been told I would find it and the place had just been plunged into uproar by the arrival of a helicopter carrying Virgin Records' boss, Richard Branson and chart-topper Feargal Sharkey, who were in the midst of a round-Britain dash, raising funds for the Appeal. I eventually found Tim and his pals very neatly ensconced in just about the most luxurious Land Rover I have ever seen. The lack of the right

vehicle for setting up the event had originally threatened to become a major problem. It was intended that CB would feature on your screens at various times throughout the day and trying to shove a TV camera into the back of a mini sounded a bit impractical. Into the breach stepped Land Rover Ltd, who not only offered the loan of the vehicle but also delivered and collected it at the appropriate times. Tim told me: "We are really grateful to the guys at Land Rover. Without their help I doubt if we could have put the station on at all."

Land Rover were by no means the only organisation to lend valuable support to their effort. Toad's CB 20, of Kenilworth, also received a huge vote of thanks from Tim and friends, for the loan of an Audioline base station and Thunderpole Mk III antenna, together with an assortment of mikes, all of which performed faultlessly, despite the rigours of being in non-stop use throughout the entire Children in Need spectacular. Goldfinger CB, way up in Dunfermline, also rated a very special vote of thanks for donating a brand new rig, to be auctioned in aid of the appeal and the ladies of the BBC staff maintained a fairly steady stream of tea and coffee to keep out the cold.

Tim told me: "What has impressed me most has been the fantastic co-operation we have received from Birmingham's own breakers. We have heard no more than a couple of wallies and they have soon been chased off by the others. We are, to some extent, stuck in the lee of the studios and some copies have been very faint but a local breaker on a higher site calling himself Grasshopper, has done a fantastic job of relaying information and everyone we have contacted has pledged money to the Appeal. We have also been very well supported by a variety of CB clubs, with donations from the World Link DX Club, Viking Radio QSL Group, Tie Fighters, QSL Club, South Staffs Breakers, Northfield Panthers and many others. It really is fantastic."

Definite

During the course of the day the station was visited by a number of stars and it was at just about this point that we were joined by snooker ace, Steve Davis, who sat in for a few minutes and appeared particularly impressed by the efficiency with which the young team were gathering donations. Others who put in short appearances at the Land Rover, which, by now, was proving quite an attraction, included former England star Emlyn Hughes and the BBC's own Stu Francis. It was rapidly becoming an autograph hunter's paradise and Dawn, in particular, was not slow to seize her opportunities.

Every now and again throughout the rest of the day there were to be moments of total panic, as cameras and mikes were thrust unceremoniously into the mobile shack and Tim Beaumont's first TV appearance

"What has impressed me most has been the fantastic co-operation we have received from Birmingham's own breakers"

did little to improve his nerves. By the end of the day, though, he had become a seasoned broadcaster. It is in the nature of this kind of programme that individual items are kept short but I was inclined to wonder how much the cameraman's speedy entries and exits owed to programme timing and how much to the difference in temperature between studio and forecourt. By the final appearance, which came just after midnight, when the entire team had spent nearly 25 hours on air, Tim and the rest of the gang were showing signs of their ordeal. It had been all but impossible to keep the shack warm, despite the fact that BBC technicians had laid on mains power and provided an electric space heater, simply because the outside temperature was not much above freezing and the constant comings and goings ensured that the Land Rover's doors were open almost as often as they were shut. A few days later, Tim told me: "By the end, I was getting to the point where I could not concentrate on the QSOs. We were all absolutely shattered. It was great fun, though."

As anyone who has helped to organise long-term events in the past will know, it is no easy feat to pull together all of the material and other services needed to make it successful, even when conditions are not dictated by the needs of television producers. For this, like other such events, special QSL cards had to be printed and every station which contacted the Children in Need Appeal will receive one in due

"Although this was our first attempt at a television event and we really did not know what to expect, we are all delighted with the result"

course. As well as the cards, the group had special sponsorship forms prepared and it is hoped that these will considerably increase the total contribution by the time the Appeal closes. Setting up in close proximity to the BBC, with all its technical equipment and numerous radio links could have been a major problem but a little assistance from BBC technicians ensured that the CB station was able to operate without any interference, either way, under difficult conditions.

I asked the four whether they felt their efforts to have been worthwhile: "Although this was our first attempt at a televised event and we really did not know what to expect, we are all delighted with the result. To date, the special bank account which we opened for the event contains something in the region of £1,300 and we are quietly confident that this is not the final figure. Although the BBC likes to do something different with each Children in Need Appeal, we hope very much to be allowed to come back again next year and to try for an even bigger total. We have already started planning, so that, if we are here, we can attract more sponsorship and we are looking forward to bettering what we consider to have been a huge success. Everything hinged on the goodwill of the breakers. Not only those we worked but also those who, having worked us, spread the word among their friends and those who left us a clear channel throughout the event, despite the degree of channel crowding in a large city like Birmingham. We are grateful to them all."

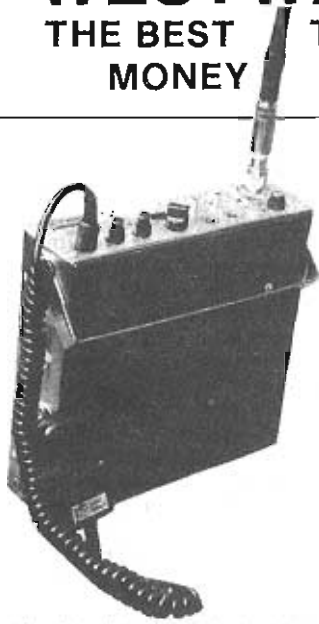
Of the appeal, itself, BBC Midlands producer, David Nelson, told me: "We were truly amazed at the amount of cash which was brought to the studios during transmission. Our staff had a very busy time counting more than £20,000 dropped in on the day."

Impressed

Asked about next year, he said that it was far to early to make definite plans but that he had been delighted with the response from CB users everywhere and would seriously consider including CB in future events.

The final word on this fantastic effort must go to Mark Beechwood, the man with the unenviable task of co-ordinating the services of the various regional TV studios, as well as local and national radio stations, to ensure the success of the mammoth production, who told me: "We have never needed to approach anyone and ask them to appear on Children in Need. Public response is invariably overwhelming and the Appeal has grown to incredible proportions since 1980. It is the willingness of organisations like the Godiva DX Group to give up their time and energy that have made each year's event more successful than the last and I would like to thank not only the CB group but everyone who helped to make this the best event yet".

WHAT MAKES THE
WESTWARD PT
THE BEST TRANSCEIVER
MONEY CAN BUY?



BASE USE

No other base station offers an advanced, active power supply with very low noise, and automatic standby on the internal battery-when the mains has failed, you may need that emergency call!

MOBILE

No other mobile can be instantly transferred from one vehicle to another, be isolated from the vehicle electrical system, for less interference, and give FULL performance in TX & RX.

PORTABLE

No other portable offers high capacity battery (3 working days use) and rapid integral charger (5 hours) with performance equal to a mobile when using s/s whip (op. extra). PL259 ant. socket.

Attractive & durable s/steel cabinet, selective calling can be built in, & custom mods to order.

Extras include s/s whips, mag. mounts, and hand crafted real leather case with custom carving of illustrations and handles if required.

Price less than many mains only sets. See your dealer, or SAE for full details to: Westward Electronics, The Mill House, Tuekenhay, Totnes, Devon TQ9 7EL Tel: 080423 336/370. 0803 884470. Trade enquiries welcome. North West, D.A.S. 58 Lark Lane, Liverpool L17 8YA Tel: 061 7276013. West Midlands C.B. Cabin, 81 Church Street, Brierley Hill Tel: 0384 71905.

"AGRIMOTORS"

(J. W. C. HUNT)

MERTON "CB" RADIO CENTRE
MERTON, OKEHAMPTON, DEVON. EX20 3DZ

Tel: BEAFORD (08053) 200

27 M/hz

We carry large stocks of 27 M/hz equipment including most makes of:- C.B.27 M/hz Transceivers, Antennas both Home Base and Mobile, V.S.W.R. and frequency counting equipment, Watt meters, etc. etc. Power Supply Units from 3 to 12 AMPS, 13.5V. regulated. Masts, Poles, Chimney Lashing Kits, Co-axial Cables, R G.58 to H100 types always in stock, plugs and fittings of all descriptions, Reverberators, Mikes — H/Base, H/Held, Power, Echo, etc. Bury's Auto-Squelch stocked and fitted, Moonraker, major and minor, 'Mr. Stick' antennas now stocked.

934 M/hz

We have in stock and are dealers for:-

"Reftec", Comtel "Kestrel", "Cybernet Delta One", and "Uniace 400".

All types of 934 M/hz Antennas, Mobile Colinears, Gutter mounts, Roof Mag Mounts, Roof through fittings etc. Home Base Professional Colinears, Yagi Beams, Helical Coil (Circular Polarisation) and quads. RG213UBX and H100 Coax Cables, all "N" and "BNC" type fittings, S.W.R. meters, combined V.S.W.R. and Watt meters, Masthead or rear of "Rig" Pre-amplifiers (20 D.B. gain) by Crestbyte, Rotators by Kopec and Hirschmann. Antennas by "Reftec", Les Wallen, Tagra and T.A.P. Ltd.

LATEST NEWS: We now stock:-

For 27 M/hz COMMUNICATIONS

The Radio Technic Ltd, Model RT.852 T/ceiver. A superb set for Commerce, The Home, and Commercial Transport priced £69.95 (VAT included).

For 934 M/hz COMMUNICATIONS

The Uniace Tele Communications Ltd Model, Uniace 400 Mobile 8 WATTS out-put transceiver, Crestbyte Ltd. Model AP206, Masthead 8 WATT linear amp., preamp double switching for co-linear and beam antennas.

Hours: 9am-1 pm. 2pm-6pm. Mondays to Saturdays (inclusive) Sundays - by appointment

MAIL ORDER ADVERTISING

British Code of Advertising Practice

ADVERTISEMENTS IN THIS PUBLICATION ARE REQUIRED TO CONFORM TO THE BRITISH CODE OF ADVERTISING PRACTICE. IN RESPECT OF MAIL ORDER ADVERTISEMENTS WHERE MONEY IS PAID IN ADVANCE, THE CODE REQUIRES ADVERTISERS TO FULFIL ORDERS WITHIN 28 DAYS, UNLESS A LONGER DELIVERY PERIOD IS STATED. WHERE GOODS ARE RETURNED UNDAMAGED WITHIN SEVEN DAYS, THE PURCHASER'S MONEY MUST BE REFUNDED. PLEASE RETAIN PROOF OF POSTAGE/DESPATCH, AS THIS MAY BE NEEDED.

Mail Order Protection Scheme

If you order goods from Mail Order advertisements in this magazine end pay by post in advance of delivery will consider you for compensation if the Advertiser should become insolvent or bankrupt, provided:

1. You have not received the goods or had your money returned; and
2. You write to the Publisher of this publication; summarising the situation not earlier than 28 days from the day you sent your order and not later than two months from that day.

Please do not wait until the last moment to inform us. When you write, we will tell you how to make your claim and what evidence of payment is required.

We guarantee to meet claims from readers made in accordance with the above procedure as soon as possible after the Advertiser has been declared bankrupt or insolvent (up to a limit of £2,000 per annum for any one Advertiser so affected and up to £6,000 per annum in respect of all insolvent Advertisers. Claims may be paid for higher amounts, or when the above procedure has not been complied with, at the discretion of this publication, but we do not guarantee to do so in view of the need to set some limit to this commitment and to learn quickly of readers' difficulties.)

This guarantee covers only advance payment sent in direct response to an advertisement in this magazine (not, for example, payment made in response to catalogues etc, received as a result of answering such advertisements). Classified advertisements are excluded.

BRIGHTON COMMUNICATIONS



For excellent service
and low low prices

0273 563177
0273 506279

Free postage and packing on orders over £10.00

| ZETAGI: Linear/Meters | FIRESTIKS | | |
|---------------------------|-----------|-----------------------------------|---------|
| B150 | £45.00 | Genuine P.A.L. | |
| B300 | £119.00 | 2ft | £5.95 |
| SWR 500 | £34.95 | 3ft | £6.95 |
| SWR 201 | £23.95 | 4ft | £7.95 |
| DLW 500 | £45.00 | 5ft | £8.95 |
| C350 Freq CNT | £89.95 | 7ft | £9.95 |
| C45 Freq CNT | £59.95 | | |
| P27 Pre Amp | £24.95 | POWER SUPPLIES | |
| NEVADA | | Bremi 3-5 | £14.95 |
| TC35 Linear | £19.95 | Bremi 5-7 | £24.95 |
| TC27 RX Pre Amp | £19.95 | Nentone 8-10 | £35.00 |
| ANTENNAS Home Base | | RIGS | |
| Thunderpole III | £22.95 | Johnson | £39.95 |
| Lofty II | £19.95 | Maxcom 30E | £59.95 |
| G.P.A 1/2 Wave | £13.95 | Audioline 340 | £48.00 |
| G.P.A. 5/8 Wave | £15.95 | Audioline 341 | £79.00 |
| AV 140 | £29.95 | Uniace 300 | £169.00 |
| AR 5/8 | £35.00 | THIS MONTHS SPECIAL OFFERS | |
| Silver Rod | £19.95 | 130 Watt Linear | £39.95 |
| ANTENNAS MOBILE | | 3 1/2" diameter magmount | |
| DV27 Whip only | £2.95 | with cable PL259 | £4.95 |
| DV27 Complete | £6.95 | BRIGHTON COMMUNICATIONS | |
| Z27 | £10.95 | 20 CLERMONT ROAD | |
| Warrior | £13.95 | BRIGHTON, SUSSEX | |
| Modulator I | £10.95 | | |
| Modulator II | £13.95 | | |

CB Citizens' Band

READER SERVICES

Back Issues

The following issues of Citizens' Band are still available as back numbers. The cost of each magazine is £1.50. This includes packing and posting. Please allow 28 days for delivery.

| Issue | Major feature |
|----------------|--------------------------------|
| January 1985 | SWR survey and Breaker's Basic |
| February 1985 | Understanding CB specs. |
| March 1985 | Commtel 934 |
| April 1985 | QSL History |
| May 1985 | Jungle CB |
| June 1985 | Catcall rig |
| July 1985 | Amateur Radio |
| August 1985 | Uniac 934 |
| September 1985 | John Butcher interview |
| October 1985 | Plugs and cables guide |
| November 1985 | Radiotechnic RT852 |
| December 1985 | The story of 934 |
| January 1986 | CB codes explained |

Binders

To keep your copies of Citizen's Band neat and tidy, binders are available to hold 12 copies of the magazine. Each binder costs £5.00 and this price includes packing and postage.

Subscriptions

Citizens' Band is available on subscription at the following prices:

| | |
|-----------------------------|---------|
| UK and BFPO | £16.90 |
| Overseas (excluding U.S.A.) | £22.00 |
| Accelerated Surface Post | |
| U.S.A. | \$28.00 |
| Accelerated Surface Post | |
| Airmail | £48.50 |

Each subscription lasts for twelve issues of the magazine.

Infonet Ltd, Times House, 179 The Marlowes, Hemel Hempstead, Herts. HP1 1BB. Tel: 0442 48435.

Please send the following back numbers of Citizens' Band, price £1.50 inclusive.

.....

Please send Citizens' Band Binders price £5 each inclusive.

Please start my annual subscription to Citizens' Band with the (month) issue I enclose for a year's subscription.

All cheques payable to A.S.P. Ltd.

Total cost of Order £.....

Please allow 28 days for delivery

I enclose my cheque/postal order for above amount payable to A.S.P. Ltd.

Please debit my Access/Barclaycard (delete as necessary)

Card

No.

Name

Address

.....

Post Code Date

Signature

ANTENNA CHECKLIST

Name
Lists antennas by name and model number and gives you, where possible, the name and address of the manufacturer or distributor.

Construction
The majority of home base antennas are made of aluminium and mobile antennas from stainless steel, but fibre glass can be

The D.T.I. specs for CB antennas are now more liberal than those originally in force, with the base loading restriction removed to permit any type of loading as long as the antenna is 1.65m in length (or less) and no more than 55mm in diameter. This revised checklist now includes the many new antennas released after this change of heart.

| NAME | ADDRESSES | MODEL | CONSTRUCTION | LENGTH | MAX POWER | TYPE | LOADING | MOUNT | PRICE RANGE | |
|-----------------------|--|-----------------|--------------|---------|-----------|-------------|---------|------------------------------------|-------------|--|
| | | | | | | | | | | |
| AERIAL SUPPLIES | Aerial Supplies (Redditch) Ltd. 6 Widnay House, Bromagrove Road, Redditch, Worcs. (0527 62620/60107) | Silver Star | AL | 1.5 | 100 | B | B | Pole | D | |
| | | Silver Arrow | AL | 1.5 | 500 | B | B | Pole | F | |
| | | Javelin Dipole | AL | 1.84 | 500 | B | C | Pole | C | |
| ALLGON | Communications, 10 North Street, Strood, Kent. | Various | FG | Various | Various | B | T | Various | A-H | |
| | | 466 | SS | 1.4 | 10w | Marine | C | Mast/Cabin | inc. | |
| ARMSTRONG | Stateside Trading Ltd. Audley Avenue, Newport, Shropshire | SAM 10 | SS | 1.06 | 1000 | M | B | Surface | F | |
| | | SAM 20 | SS | 1.06 | 1000 | M | B | Spring Surface | F | |
| | | TAK 10 | SS | 1.05 | 1000 | M | B | Boot lip | F | |
| | | TAK 20 | SS | 1.06 | 1000 | M | B | Spring Boot lip | G | |
| | | MAG 10 | SS | 1.06 | 1000 | M | B | Mag. | G | |
| | | MAG 20 | SS | 1.05 | 1000 | M | B | Spring Mag. | G | |
| | | BDY 20 | SS | 1.06 | 1000 | M | B | Side | G | |
| | | PEC 20 | SS | 1.06 | 1000 | M | B | Side, Fold over & Quick Disconnect | G | |
| ARCHER | Tandy Corp. Tameway Tower, Bridge Street, Walsall, West Mids. | 21-904 | SS | 0.5 | 60 | M | B | 3/8" thread | D | |
| BANDIT | Telecomms, 189 London Road, North End, Portsmouth | B10 | SS | 1.42 | | M | B | Mag. | G | |
| | | B15 | SS | 0.81 | | M | B | Mag. | F | |
| | | B16 | SS | 1.22 | | M | B | Mag. | F | |
| | | B20 | SS | 1.42 | | M | B | Mirror | E | |
| | | B30 | SS | 1.42 | | M | B | Drill Thru | E | |
| | | B30 | SS | 1.22 | | M | B | Drill Thru | E | |
| | | B40 | SS | 1.42 | | M | B | Various | O | |
| | | B60 | SS | 1.42 | | M | B | Various | O | |
| BREMI UK LTD. | Unit 6, Innage Park, Holly Lane Industrial Estate, Atherstone, Warks. | B27S | SS | 1.62 | 1000 | M | B | 3/8" thread | C | |
| | | C27S | SS | 1.38 | 1000 | M | C | 3/8" thread | C | |
| | | HB27S | AL | 1.55 | 1000 | M | T | Pole | C | |
| CB SERVICES | 97 Crab Lane, Harrogate, North Yorks. | Bullwhip | SS | 1.5 | | M | B | Various | C | |
| | | Knuckleduster | AL | 1.5 | | B | B | | D | |
| CDMMTEL | Near Third Drove, Fengate, Peterborough | Rocket | SS | 1.5 | | M | B | 3/8" thread | | |
| | | Shuttle | FG | 1.6 | | M | B | 3/8" thread | | |
| | | Sterlight | SS | 1.6 | | M | B | 3/8" thread | | |
| | | Shuttle Star | | 1.5 | | B | B | CW | Clamp | |
| | | Signal searcher | AL | 1.5 | | B | B | Pole | | |
| | | Messenger | SS | 1.5 | | B | B | Clamp | E | |
| FREEMAN AND PARDOE | Tything Road, Arden Forest Ind. Est. Alcester, Warks. | Invader | AL | 1.5 | 250 | B | B | Pole | E | |
| | | Thunderpole II | AL | 1.5 | 500 | B | B | Pole | F | |
| | | Thunderpole III | A1 | 1.65 | 500 | B | C | Pole | F | |
| GAMMA AERIAL PRODUCTS | Lye, West Midlands. (0384 691132/691474) | Skybreaker | AL | 1.5 | | B | B | Pole | D | |
| | | Avenger | AL | 1.5 | | B | B | Bracket | C | |
| | | Lofty | AL | 1.5 | | B | B | | D | |
| | | Skybreaker II | AL | 1.65 | | B | B | Pole | E | |
| | | Avenger II | AL | 1.65 | | B | C | Bracket | E | |
| | | Lofty II | AL | 1.65 | | B | C | | E | |
| Firefly | SS | 1.65 | | M | C | 3/8" thread | | | | |

a Checklist will give you the following information:

used in some models. The list tells you what material the antenna is manufactured from.

Length

The legal maximum length of an antenna is 1.65m, base or mobile.

Maximum Power

This is intended as a guide

only, as the law only permits an effective radiated power of two watts. The power rating will give some indication of sturdiness. Figure refers to watts.

Type

Indicates whether a mobile or base antenna.

Loading

Indicates the type of

electrical loading of the antenna; top, centre, bottom or continuously wound.

Mount

This gives some idea of the mount or type of mount appropriate for the antenna concerned. Home base antennas are usually pole

mounted, but can be house gutter mounted. Mobile antennas are either mag. mounted by a strong magnet, attached to the car gutter or boot lid edge whilst others are physically attached in the same way as a car radio antenna. Mobile antennas with 3/8" thread usually will fit a range of mounts.

| KEY | Construction | Loading | B — £5-£9.99 |
|----------------------|-------------------------|----------------|----------------|
| SS — Stainless Steel | AL — Aluminium | T — Top | C — £10-£14.99 |
| FG — Fibreglass | B — Base | C — Centre | D — £15-£19.99 |
| Type | CW — Continuously wound | B — Base | E — £20-£24.99 |
| B — Base | Price Bands | F — £25-£29.99 | G — £30-£39.99 |
| M — Mobile | A — £1-£4.99 | H — £40 plus. | |

| NAME | ADDRESSES | MODEL | REFERENCE | | | | | | |
|-------------------|---|---------------------|--------------|--------|-------------------|-------------|---------|--|-------------|
| | | | CONSTRUCTION | LENGTH | MAX. POWER | TYPE | LOADING | MOUNT | PRICE RANGE |
| HAM | Cognat & Co, Whitegate, 12 Farden, Bitterley, Ludlow, Salop | Big Mac | AL | 8.8m | 2k | B | B | Various | H |
| | | Thunderbird | AL | 8.5 | 2k | B | B | Various | G |
| | | Hipower | AL | 6.5 | 2k | B | B | Various | G |
| | | Quatro | AL | 5.0 | 2k | B | B | Various | G |
| | | Saxy | AL | 7.5 | 2k | B | B | Various | G |
| HOT ROD | Stateside Trading Ltd, Audley Avenue, Newport. | FM UK | SS | 1.27 | | M | B | 3/8" Thread | B |
| LES WALLEN MANF. | Pembroke Works, Ramsgate Road, Sandwich. | Modulator LC | SS | 1.55 | 1000 | M | B | 3/8" Thread | C |
| | | M.D.X. Long | SS | 2.00 | 1000 | M | B | 3/8" Thread | C |
| | | M.D.X Short | SS | 1.55 | 1000 | M | B | 3/8" Thread | C |
| | | Mini M.D.X. | SS | 1.10 | 100 | M | B | 3/8" Thread | B |
| | | Mini 27 | SS | 1.40 | 500 | M | B | 3/8" Thread | B |
| | | T-Bolt | SS | 0.83 | 200 | M | B | 3/8" Thread | B |
| | | Saturn | AL | 1.00 | 500 | B | CW | Pole/wall | D |
| | | Exper | AL | 1.00 | 1000 | B | B | Pole/wall | F |
| MARKSMAN | Marksman Products, PO Box 40, Milton Keynes MK6 2UT (0908 668816) | Mister Stick | SS | 1.19 | Above legal limit | M | C | 3/4" UNF | D |
| | | | | 1.63 | | | | | |
| R.W. BAOLAND LTD. | Roetan Trading Estate, Providence Street, Lye, Stourbridge, West Midlands (Lye 3160/5051) | Rebel 1 | SS | 1.5 | 500 | M | B | 3/8" Thread | |
| | | Rebel II | SS | 1.5 | 500 | M | B | 3/8" Thread | |
| | | Rebel Raider | SS | 1.6 | 500 | M | C | 3/8" Thread | |
| | | Rebel Bullet | SS | 0.61 | 50 | M | B | 3/8" Thread | |
| | | Red Devil | SS | 1.62 | 500 | M | CW | 3/8" Thread | |
| REVCO | Telecomms, 189 London Road, North End, Portsmouth. | Revco | SS | 1.0 | 100 | M | B | Various | B |
| SMC | Rumbridge Street, Totton Street, Hants | Oscar CBA 11GP | SS | 1.5 | | B | B | Mag. Foldover Base Pull up Foldover Base | F |
| | | Oscar 11V11S11 | SS | 1.5 | | B | B | | F |
| | | Oscar 11CM | SS | 1.2 | | M | B | | F |
| | | Oscar 11CE | SS | 1.2 | | M | B | | F |
| | | Oscar 11NE | SS | 1.5 | | M | B | | F |
| | | Oscar 11SE | SS | 1.6 | | M | B | | F |
| | | Oscar 11ZE | SS | 1.5 | | M | B | | F |
| TAGRA | CB Radio Centre, 337 Kenton Road, Middlesex. | T40 | SS | 1.4 | 500 | M | B | Various | E |
| THORO'BRED | Pixtron UK Ltd, 10 Victoria Street, Newark, Notts. (0636 74688 Telex: 377627) | Z 27 | SS | 1.62 | 1700 | M | B | 3/8" Thread | B |
| | | Z Mag | SS | 1.52 | 1700 | M | B | 3" Dia Magnet | C |
| | | Z 51 | SS | 1.60 | 100 | M | B | 6" Dia Magnet | C |
| VALOR | W.T.A. Electronics Ltd, 111 Cromer Road, Helleston, Norwich (0603 47694) | Warrior 650 | SS | 1.52 | 1500 | M | C | 3/8" Thread | C |
| | | Half Breed 620 | SS | 1.52 | 1500 | M | B | 3/8" Thread | C |
| | | Half Breed 610 | SS | 1.2 | 1500 | M | B | 3/8" Thread | C |
| | | Half Breed 600 | SS | 0.9 | 1500 | M | B | 3/8" Thread | C |
| | | Dial-a-Match 640 | SS | 1.2 | 100 | M | B | 3/8" Thread | C |
| | | Dial-A-Match 630 | SS | 0.6 | 25 | M | B | 3/8" Thread | C |
| | | Rubber Duck 300 | SS | 0.36 | 25 | M | CW | 3/8" Thread | C |
| | | Pro Am PLB 27 | SS | 1.62 | 200 | M | B | 3/8" Thread | E |
| | | Road Hog 338 | FG | 0.9 | 1000 | M | T | 3/8" Thread | D |
| | | Road Hog 336 | FG | 1.2 | 1000 | M | T | 3/8" Thread | D |
| | | Road Hog 336 | FG | 1.62 | 1000 | M | T | 3/8" Thread | D |
| | | Road Hog 337 | FG | 1.76 | 1000 | M | T | 3/8" Thread | D |
| | | Road Hog 831 | FG | 0.6 | 500 | M | T | 3/8" Thread | D |
| | | Road Hog 638 | FG | 0.9 | 1000 | M | T | 3/8" Thread | D |
| | | Road Hog 836 | FG | 1.2 | 1000 | M | T | 3/8" Thread | D |
| | | Road Hog 836 | FG | 1.62 | 1000 | M | T | 3/8" Thread | D |
| | | Black Magic 333 1/2 | FG | 0.76 | 500 | M | T | 3/8" Thread | D |
| | | Black Magic 333 | FG | 1.2 | 500 | M | T | 3/8" Thread | D |
| | | Black Magic 332 | FG | 1.52 | 500 | M | T | 3/8" Thread | D |
| | | Black Magic 333 1/2 | FG | 0.76 | 500 | M | T | 3/8" Thread | D |
| Black Magic 833 | FG | 1.2 | 500 | M | T | 3/8" Thread | D | | |
| WTA | W.T.A. Electronics Ltd, 111 Cromer Road, Helleston, Norwich. (0603 47694) | Wot Pole 1 | AL | 1.6 | 1000 | B | B | Pole | B |
| | | Wot Pole II | AL | 1.6 | 1000 | B | B | Pole | C |
| | | Wot Stick 1 | SS | 1.6 | 1000 | M | B | 3/8" Thread | A |
| | | Wot Stick II | SS | 1.6 | 1000 | M | B | 3/8" Thread | B |
| VAN ORDT | Knight Communications, Unit 19 Britania Estate, Leagrave Road. | Audio King | SS | 1.5 | 2000 | M | B | 3/8" Thread | G |

FM RIG CHECKLIST



| NAME | MODEL | RETAIL PRICE | NO. OF CHANNELS | SUPPLY VOLTAGE | SQUELCH | NB SWITCH | ANL SWITCH | MIKE GAIN | RF GAIN | STONE CONTROL | S/RF METER | S/RF LED R/O | HI/LO OUTPUT | PA FACILITY | EX SPEAKER JACK |
|---------------|---------------|--------------|-----------------|----------------|---------|-----------|------------|-----------|---------|---------------|------------|--------------|--------------|-------------|-----------------|
| AUDIO LINE | 341 | £60 | 40 | 13.8VDC | • | | | • | • | • | • | • | • | • | |
| AUDIO LINE | 340 | £40 | 40 | 13.8VDC | • | | | • | | • | • | • | • | • | |
| AUDIO LINE | 342 | £115 | 40 | 13.8VDC | • | | | | | • | • | • | • | • | |
| COLT | 295 | £49.99 | 40 | 13.8VDC | • | | | | • | | | • | • | • | |
| COMMTEL | GT858 | £30 | 40 | 13.8VDC | • | | | | | • | • | • | • | • | |
| COMMTEL | GT688 | £36 | 40 | 13.8VDC | • | | | | • | | • | • | • | • | |
| COMMTRON | CB40F | £70 | 40 | 13.8VDC | • | | | | | • | • | • | • | • | |
| COMMTRON | CXX | £69.95 | 40 | 13.8VDC | • | | | | • | | • | • | • | • | |
| COMMUNICATORS | NI-440DX | £50 | 40 | 13.8VDC | • | | | | • | • | • | • | • | • | |
| CYBERNET | BETA 1000 | £70 | 40 | 13.8VDC | • | | | | | | • | • | • | • | |
| CYBERNET | BETA 2000 | £86 | 40 | 13.8VDC | • | | | | • | | • | • | • | • | |
| CYBERNET | BETA 3000 | £169 | 40 | 13.8VDC | • | | | | • | • | • | • | • | • | |
| CYBERNET | DELTA 1 | £356 | 20 | 13.8VDC | • | | | | | • | • | • | • | • | |
| INTERCEPTOR | INTERCEPTOR | £80 | 40 | 13.8VDC | • | | | | • | • | • | • | • | • | |
| INTERCEPTOR | TC400 | £95 | 40 | 13.8VDC | • | | • | • | • | • | • | • | • | • | |
| INTERCEPTOR | ONE HANDER | £100 | 40 | 13.8VDC | • | | | • | • | • | • | • | • | • | |
| JOHNSON | JOHNSON | £50 | 40 | 13.8VDC | • | | | | • | • | • | • | • | • | |
| LAKE | MANXMAN 850 | £32.50 | 40 | 13.8VDC | • | | | | • | • | • | • | • | • | |
| LAKE | MANXMAN 950 | £37.50 | 40 | 13.8VDC | • | | | | • | • | • | • | • | • | |
| LOWE | TX 40 | £50 | 40 | 13.8VDC | • | | | | • | • | • | • | • | • | |
| MAGPIE | AUTOSCAN 5000 | £120 | 40 | 13.8VDC | • | | | • | • | • | • | • | • | • | |
| MAXCOM | 4E | £50 | 40 | 13.8VDC | • | | | | | • | • | • | • | • | |
| MAXCOM | 6E | £48 | 40 | 13.8VDC | • | | | | • | | • | • | • | • | |
| MAXCOM | 20E | £50 | 40 | 13.8VDC | • | | | | | • | • | • | • | • | |
| MAXCOM | 21E | £50 | 40 | 13.8VDC | • | | | | | • | • | • | • | • | |
| MAXCOM | 18E | £40 | 40 | 13.8VDC | • | | | | | • | • | • | • | • | |
| MAXCOM | 30E | £66 | 40 | 13.8VDC | • | | | • | • | • | • | • | • | • | |



This listing includes most of the rigs available for FM CB. Some rigs are still not on the market, but may be picked up second-hand or may be found in old stock at some shops. The prices quoted are recommended retail prices or typical price — they may vary considerably from shop to shop and area to area.

MOBILES

| TX IND. LIGHT | RX IND. LIGHT | CH 9 SWITCH | MIKE POSITION | COMMENTS | ADDRESS | NAME |
|---------------|---------------|-------------|---------------|------------------------|---|-------------|
| • | | | SL | | Telecomms, 189 London Rd, North End, Portsmouth | AUDIOLINE |
| | | | | Report Feb '82 | | AUDIOLINE |
| • | | | | | | AUDIO LINE |
| | | | FL | | K B & Co Ltd., 202 Cheetham Hill Rd, Manchester | COLT |
| | | | SL | | Globe, 168 Brooker Road, Waltham Abbey, Essex | COMMTEL |
| | | | SL | Dimmer Switch Features | | COMMTEL |
| | • | | FL | | Roger D, 831 Mansfield Rd, Notts | COMMTRON |
| | | | FL | | | COMMTRON |
| • | • | | FL | Roger Beep Feature | | |
| | | | SL | | Telecomms, 198 London Rd, North End, Portsmouth | CYBERNET |
| • | | | FL | Report May '83 | | CYBERNET |
| • | • | | FL | Report September '83 | | CYBERNET |
| | | | FR | Report Oct '84 | | CYBERNET |
| • | | | SL | | | INTERCEPTOR |
| • | | | FL | | | INTERCEPTOR |
| • | | | FL | | | INTERCEPTOR |
| | | | FL | Great GT868 chassis | Ster Warehouse, Chalk Farm Rd, London | JOHNSON |
| | | | FL | | Roger D, 831 Mansfield Rd., Nottingham NG5 3GF | LAKE |
| | | | FR | Report April '83 | | LAKE |
| • | | | FL | Report March '83 | Lowe Electronics, Matlock, Derbyshire | LOWE |
| | • | | FL | Report November '82 | Maggie Electronics, PO Box 35, Andover, Hants SP10 2LG | MAGPIE |
| | | | FL | | AM House, 9A Old's Approach, Tolpits Ln, Watford, Herts | MAXCOM |
| | • | | FL | | | MAXCOM |
| | • | | FL | | | MAXCOM |
| | • | | FL | | | MAXCOM |
| | | | FL | | | MAXCOM |
| | | | FL | Report Jan '84 | | MAXCOM |



REFERENCE



| NAME | MODEL | RETAIL PRICE | NO OF CHANNELS | SUPPLY VOLTAGE | SQUELCH | NB SWITCH | ANL SWITCH | MIKE GAIN | RF GAIN | STONE CONTROL | S/RF METER | S/RF LED R/O | HI/LO OUTPUT | PA FACILITY | EX. SPEAK |
|--------------|----------------|--------------|----------------|-----------------|---------|-----------|------------|-----------|---------|---------------|------------|--------------|--------------|-------------|-----------|
| MERCURY | 10 40 | N/A | 40 | 13.8VDC | • | | | • | | • | | • | • | • | |
| MUSTANG | CB1000 | £49.95 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| MUSTANG | CB3000 | £59.99 | 40 | 13.8VDC | • | | | • | • | • | | | • | • | |
| NATO | 40M | £69.95 | 40 | 13.8VDC | • | | | • | • | • | | | • | • | |
| NATO | 2000 | £189.95 | 40 | 13.8VDC | • | • | • | • | • | • | | | • | • | |
| OSCAR | OSCAR I | £85 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| OSCAR | OSCAR II | £49 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| RADIOTECHNIC | SUPERTUNED M40 | £59.95 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| RADIOTECHNIC | RT 852 | £69.95 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| ROTEL | RVC 220 | £50 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| ROTEL | RVC 230 | £70 | 40 | 13.8VDC | • | | | • | • | • | | | • | • | |
| ROTEL | RVC 240 | £90 | 40 | 13.8VDC | • | | • | • | • | • | | | • | • | |
| SIRTEL | SEARCHER | £40 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| TANDY | TRC2001 | £80 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| TANDY | TRC2002 | £70 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| TANDY | TRC2000 | £100 | 40 | 13.8VDC | • | | • | • | | • | | | • | • | |
| TANDY | TRC1004 | £79 | 40 | 12VDC | • | | | | | • | | | • | • | |
| TANDY | TRC2003 | £130 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| UNIDEN | UNIACE 100 | £69.95 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| UNIDEN | UNIACE 200 | £89.95 | 40 | 13.8VDC | • | | • | • | • | • | | | • | • | |
| WESTERN | COMPACT 40 | £34.50 | 40 | 13.8VDC | • | | | | | • | | | • | • | |
| WESTWARD | P.T.2 | £159.95 | 40 | 13.8VDC 240V | • | | | | | • | | | • | • | |



| NAME | MODEL | RETAIL PRICE | NO OF CHANNELS | SUPPLY VOLTAGE | SQUELCH | NB SWITCH | ANL SWITCH | MIKE GAIN | RF GAIN | STONE CONTROL | S/RF METER | S/RF LED R/O | HI/LO OUTPUT | PA FACILITY | EX. SPEAK |
|-----------|------------|--------------|----------------|----------------|---------|-----------|------------|-----------|---------|---------------|------------|--------------|--------------|-------------|-----------|
| AUDIOLINE | 345 | £139.95 | 40 | 240VAC | • | | | • | • | • | | | • | • | |
| COMMTEL | | £65 | 40 | 240/12V | • | | | | | • | | | • | • | |
| HAM INT. | JUMBO | £254 | 40 | 240VAC | • | • | • | • | | | | | • | • | |
| HARVARD | H401 | £149.95 | 40 | 240VAC | • | | | • | • | • | | | • | • | |
| HARVARD | WT44 | | 40 | BATTERIES | • | | | | | | | | • | • | |
| KAISER | CBX40 | £80 | 40 | BATTERY | • | | | | | • | | | • | • | |
| MAXCOM | 7E | £69.95 | 40 | BATTERY | • | | | | | • | | | • | • | |
| TANDY | TRC1001 | £119 | | BATTERY | • | | | | | • | | | • | • | |
| UNIDEN | UNIACE 300 | £149.95 | 40 | 240VAC | • | | • | • | • | • | | | • | • | |
| WESTWARD | P.T.2 | £159.95 | 40 | 240V/12V | • | | | | | • | | | • | • | |

MOBILES

| POWER JACK | TX IND. LIGHT | RX IND. LIGHT | CH 9 SWITCH | MIKE POSITION | COMMENTS | ADDRESSES | NAME |
|------------|---------------|---------------|-------------|---------------|-------------------------------------|---|--------------|
| • | • | | | FR | Report July '83 | E.M.S. Communications, Grove St, Wantage, Oxon LX21 7AD | MERCURY |
| • | • | | | FL | | K B. & Co Ltd, 202 Cheatham Hill Rd, M/cr. | MUSTANG |
| • | • | • | | FL | | | MUSTANG |
| • | | | | FL | | Roger D, 831 Mansfield Rd, Nottingham NG5 3GF | NATO |
| • | | | | SL | Report January '83 | | NATO |
| | | | • | FL | Cybernet 134 chassis rap. April '82 | S.M.C. Runbridge St, Totton, Hants SO4 4OP | OSCAR |
| | | | | FL | Report Oct '83 | | OSCAR |
| • | • | | | FL | Report July '82 | Radiotechnic Ltd, Rue des Buttes, St Mary, Jersey, C.I./23 Telford Rd, Fern Down Industrial Estate, Fern Down, Wimborne, Dorset | RADIOTECHNIC |
| • | • | | | FL | Report Nov '85 | | RADIOTECHNIC |
| • | | | | FL | Cybernet chassis | Rotal Hi-Fi, 2-4 Erica Rd, Stacey Bushes, Milton Keynes | ROTEL |
| • | • | • | | SL | Cybernet chassis | | ROTEL |
| • | | | | SL | Cybernet chassis | | ROTEL |
| • | | | | FL | | | SIRTEL |
| • | • | | | SL | | Tame Way, Tower Bridge St, Walsall, Staffs | TANOY |
| • | | | | SL | | | TANDY |
| • | | | | SL | | | TANDY |
| • | | | | SL | | | TANDY |
| • | | | | SL | Report Nov '82 | | TANDY |
| • | | | | SL | Report Sept '82 | Cravenminster Ltd, Unit 8, Ind Est, Llandudno Junct, Gwynedd | UNIDEN |
| • | • | | | FL | Report Feb '83 | | UNIDEN |
| • | • | | | SL | | Western Electronics, Fairfield Est, Louth, Notts | WESTERN |
| • | | | | FL | Report Nov '83 | Westward Electronics, The Mill House, Westward Tuckenhay, Totnes, Devon 086423 336/370 | WESTWARD |

BASES & PORTABLES

| POWER JACK | TX IND. LIGHT | RX IND. LIGHT | CH 9 SWITCH | MIKE POSITION | COMMENTS | ADDRESSES | NAME |
|------------|---------------|---------------|-------------|---------------|---|---|-----------|
| • | | | | | | Telecomms, Portsmouth and Globe, Essex | AUDIOLINE |
| | | | | FR | Report December '83. Also comes with telescopic antenna | | COMMTEL |
| • | | | | SL | | | HAM INT, |
| • | | | | FL | | | HARVARD |
| | | | | | External antenna facility | Globe, 188 Brooker Road, Waltham Abbey, Essex | HARVARD |
| • | | | | | | Telecomms, 189 London Road, North End, Portsmouth | KAISER |
| • | | | | | | Sherman's Wholesale, 3 Bury New Rd, Manchester (061-834 9571) | MAXCOM |
| • | | | | | | Tame Way, Tower Bridge Street, Walsall | TANDY |
| • | | | | FL | Reviewed August '83 | Cravenminster Ltd, Unit 8, Industrial Estate, Llandudno Junction, Gwynedd | UNIDEN |
| | | | | FL | Report Nov '83 | Westward Electronics, The Mill House, Tuckenhay, Totnes, Devon 080423 336/370 | WESTWARD |

CITIZENS' BAND

Lineage:

46p per word — VAT inclusive
(minimum 15 words).

Semi display: £7.70 (plus VAT) per single column centimetre.

Ring for information on series bookings/discounts.
All advertisements in this section must be prepaid.
Advertisements are accepted subject to the terms and conditions printed on the advertisement rate card (available on request).



01 - 437 0699

Send your requirements to:
Citizens Band Classified,
ASP LTD., 1 Golden Square, London W1

ACCESSORIES

WHOLESALE

Giant vans with unrivalled giant range of CB and accessories. At your shop's doorstep regularly. Or come and see us.



WE DELIVER NATIONWIDE

TRADERS contact us, reverse the charges and **MAKE MONEY!**

Pama House, 433 Wilmslow Road,
Manchester M20 9AF
Tel: 061-445-8918
061-434-5701
Telex: 666762

CARDS, STICKERS & BADGES

Promote Your Club!

Embroidered Badges and Jumpers, T-Shirts, Sweatshirts, Bomber Jackets, Ties, Pennants, Hats.



For Brochure Contact

A S PROMOTIONS

Room 31, 565 Lea Bridge Road
London, E10 7EQ. Tel: 01-556 4810

PERSONALISED QSLs 1,000 £15, Handcards £10. DIY QSLs 100 £2.50. Handcards £1.10: 100 of each £3.00 OWO. only. SASE for catalogue. Currie QSL's, Room 2, 89 Derwent St., Consett Co. Durham DH8 8LT.

GLOSSY EYEBALL CARDS many colours with Gold/silver/coloured lettering. £3.70/100 including P&P. SAE order form and samples. Sharp Graphics, PO Box 3, Grangemouth FK3 9BD. (0324) 473432.

RUBBER STAMPS

Personalise your QSL, special designs no problem. Discounts for quantity. Two day service. SAE for catalogue.

BEN NEVIS, 42-44 Princes Road, Hull.
Tel: (0482) 48134.

PERSONALISED embroidered badges. Circular 3¼in. dia. or rectangular 4in x 2in. Black or white background. Thread colours red, white, blue, yellow, orange, green or black. (No pictures or logos). Club name, league, team, etc. + your name, handle, etc. Suitable for any sport. Top quality. Washable. No minimum quantity. Send £1.80 per badge. Cheques, PO's, Barclaycard or Access. Black American style peak caps, £3.50 each. Binder Sewing Centre, 3 Fairfax Way, Deepingate, Peterboro. 0733 40449.

DO YOU RUN A CLUB? Send £2 for sample club pack and we will credit you £4 off your first order (£18 or over). Plastic QSL and club cards, stickers, badges, wallets, etc. Suppliers to CB clubs for 6 years. Raymac, P.O. Box 75, Hounslow TW3 2HZ.

EYEBALL CARDS with matching motif QSLs to your own design. Done in metallic hot foil on coloured gloss card. Tonbridge For details ring 0732 354026. (Tango Polecat). B.J.S. Printing.

Lowest Priced Rubber Stamps, printing, key fobs, log books, QSL cards, etc. Catalogue SAE Jones, St. Ivy, North Road, Queensborough, Kent (Trade enquiries welcome).

CLUBS

LIMA TANGO DX Group life membership £2. Cards, stickers and lots more. PO Box 17, Lowestoft, Suffolk NR32 5ET.

D.I.Y.

DIY EXTRA CHANNELS Roger Sleepe, musical tones, CB mods etc. Send stamped addressed envelope for details. G.I.S.O. 119 Dowlund Drive, Southgate West, Crawley, Sussex RH11 8QT

THE C.B. SHOP

40 extra channels available now! The CB Shop presents another winner. Full 40FCC channels (To be legalised 1987!) Available now for your Cybernet Chassis CB eg: Rotel, York, Harrier etc — as reviewed in this edition. At a super introductory price, including fitting, P+P and VAT. Plus a full guarantee and 24 hour service, only £29.95 (includes a full tune up of your CB, if required). Plus our 11 channel conversions are still available, sale price only £9.95 or £4.50 for Crystal. Phone or write for details now

The CB SHOP
5 Odeon Arcade, Doncaster,
South Yorkshire. DN1 3LZ
Telephone (0302) 66352
(24 hours)

PLANS

SURVEILLANCE DEVICES, Bug Detectors, Voice, Scrambler, Directional Microphone, Many others. SAE for list, Plan Centre, Old String Works, Vye St., Ledbury HR8 2AA.

FOR SALE

COBRA 1489TL DX and superstar 360FM owners! Our latest kit gives you super low and super high bands for only £24.99 phone the CB Shack Tel: 051-263 2010.

WANTED

WE BUY CB RADIOS & ACCESSORIES. All types wanted URGENTLY except antennas. Unless in quantities. BEST PRICES PAID by return. Postage refunded, 1 Kg =, £1.33 to 5 Kg =, £2.50, and so on. Purchase example, Mint Maxcom basic Radio £20.00. Mint Multy Facility Radio up to £200.00. We even pay £5.00 for complete scrap radios. Quantities Purchased. Post now for Cash by Return to, **RE COMM 58** Fountainbridge, Edinburgh EH3 9PY. If you do not wish to accept our offer, return our cheque, and your equipment will be forwarded by return.

VIDEO

XXX ADULT VIDEO CLUB

for the genuine adult films. Available only from ourselves.

Ring:
0924-471811 (24 hrs)
For the intimate details or write
ADULT VIDEO CLUB
P.O. Box 12, Batley,
W. Yorks

WHOLESALE

Giant vans with unrivalled giant range of CB and accessories. At your shop's doorstep regularly. Or come and see us.



WE DELIVER NATIONWIDE

TRADERS contact us, reverse the charges and **MAKE MONEY!**

Pama House, 433 Wilmslow Road, Manchester M20 9AF
Tel: 061-445-8918
061-434-5701
Telex: 666762

10-4 CB

The No. 1 CB wholesaler and retailer.

Sideband radios include: Cobra GTL DX, Super Star 360, Straber 9 plus President range and Ham International range.

Jumbo base station. FM radios from £25.00. Aerial burners and all CB accessories.

Mail Order Access, Barclaycard. Phone us now on

0622 681719

or write to

10-4, 58 Allen Street, Maidstone, Kent ME14 5AG

EXPANSION BOARDS for SSB & UK FM Rigs. Expand legal rigs by up to 120 extra channels FCC £24.95. Add UK channels and extra bands to SSB/FM rigs. From £9.95. Crystals supplied. SAE details: 16 Bainbridge Close, Grange Park, Swindon, Wilts SN5 6BD.

MIDNIGHT BOARD

Channel Expansion System

Easily fitted to: uniden, audio line, maxcom, cybernet, rotel, Harrier, Harvard & many more. Prices inc. carriage & VAT

Γ-9 £11 each, 10-24 £7.50 each, 25-99 £6.25 each, 100 + £5 each.

Send P.O. or Cheque to:

K. T. V.

Stonehouse St., Middlesbrough, Cleveland. Tel: 0642 829238

NATO 2000 OWNERS. Getting bleed over, cross mod images? Our custom crystal filter provides dramatic improvement in selectivity. Simple to fit instructions provided. (Also fits Superstar 2000, Tristar 777). £9.95 inclusive. Golf Communications, P.O. Box 60, Rickmansworth, Herts WD3 3PZ.

GET YOURSELF HEARD IN CITIZENS BAND. FOR ADVERTISING DETAILS PHONE JULIE DYSON ON 01-4370626

RIGS & TWIGS

PARKSIDE CB CENTRE



Cybernet 934MHz £355.00. Uniace 400 934MHz £295.95. Gap 1/2 wave £11.95. ES880 Echo chamber £41.95. Ind. Telc. 25w linears £15.95. Zetagi B132 base linear £97.95. Bremi 25w linear £16.95. Bremi 3-5 Power Supply £13.95. Oscar CBM 271 (Cybernet Chassis) £49.95. Rotel RVC 240 £85.95. Harvard 410T Hand held £59.95. Maxcom 30E £55.95. RA 201 Reverb £31.00. Super Krunch £26.95. Fidelity 200 £49.95. SWR meters from £5.95. Maxcom 7 E Hand held £89.95. Extension speakers from £2.95. Uniace 300 Home base £159.95. DNT B40 Home base £58.95. DNT 3 Channel Hand held £24.95. Uniace 200 £89.95. Audioline 340 £49.95.

Thursford, Fakenham, Norfolk. Tel: (0328) 77402

BOOKS & PUBLICATIONS

SERVICE MANUALS

Ham Concorde 2. Ham multi-mode 2. Ham Jumbo 2. Ham Viking. Ham Puma. Cobra 148 GTL DX. PC 879 and PB010. Colt 1600 DX. Tristar 777. York 863. York 861.

All above at £6.00 + £1.00 p&p each.

Other rigs and spare parts available.

CBT

1 Prince of Wales Road, Swansea. (Tel: (0792) 463821.

FREE LISTS of service manuals and circuit diagrams. Write or phone for your copy today to Bournemouth Open Channel 335/7 Charminster Rd, B'mth, Dorset BH8 9QR Tel: (0202) 518766

COMPONENTS

FOR FREE LISTS! of more than 300 LOW COST high quality components write or phone today to BOURNE-MOUTH OPEN CHANNEL, 335/7 Charminster Rd, B'm'th, Dorset BH8 9QR. Tel (0202) 518766.

GOLDFINGER CB

Turner mics and base mics. Quads from £69.99. Densi base mics with graphic equaliser Avanti antennas.

32 Canmore Street, DUNFIRMLINE, SCOTLAND Tel: (0383) 739110

COMPONENTS

IC's Transistors
Roger D

S.A.E. for prices of component

831 Mansfield Road, Nottingham, NG5 3GF.

SPEAK EASY
Components at competitive prices. Send S.A.E. for catalogue. Over 1,000 top quality components covering CB, car stereos, Hi-Fi etc.
SPEAK EASY
141 Merry Street, Motherwell, Strathclyde ML1 1JP. Telephone 0698-53609

CRYSTAL FILTERS 10.695 MHz, 7 kHz BAND WIDTH, 1k impedence, HC-18/U, 3-lead. Direct replacement for old ceramic filter in most rigs £3.80 inc. VAT/post. CRYSTALS. Many common frequencies in stock at £4.50. Ordered frequencies not in stock will be made in 8-10 weeks. Faster delivery available. Trade quotes for quantities. Many other types of crystals and filters. SAE lists. Gollidge Electronics, Merriott, Somerset TA16 5NS. Tel: (0460) 73718.

QUALITY I.C.'s, transistors etc. CB Guide Book, originally £2.95, now 75p. Orders over £5 post free, other 50p. S.A.E. for lists. Cybernet—Nevada 934MHz equipment. CB patches 10p. Tower Components, 201 Freeman Street, Grimsby, Sth Humberside. (0472-360037).

TA 7205 £1.50, MB 3712 £1.50, LC7 137 £2.99, MC3357 £2.99, Output Transister £1.50, Bleedover Filter £2.99, LA44 22 £1.99, LA1230 £1.99. Telephone: (0603) 46294.

We are now taking advertising for summer issues of **CITIZENS BAND**

Advertising copy deadlines are:

MAY issue - 10th March
JUNE issue - 8th April
JULY issue - 13th May
AUG issue - 11th June

PHONE 01-437 0626

ACCESSORIES

WHOLESALE

Giant vans with unrivalled giant range of CB and accessories. At your shop's doorstep regularly. Or come and see us.



WE DELIVER NATIONWIDE

TRADERS contact us, reverse the charges and **MAKE MONEY!**

Pama House, 433 Wilmslow Road,
Manchester M20 9AF
Tel: 061-445-8918
061-434-5701
Telex: 666762

CB
Citizens' Band

BREAKER BASES

AVON

PATCHWAY CARS CB CENTRE

Gloucester Road, Patchway,
Bristol. Tel: (0272) 694331.
Mon-Fri 8-5.30pm, Sat 8-4pm,
Sun 10-2pm.

Retail dealer stocking all types of
CB and communications equip-
ment including

**CYBERNET DELTA-1, 934 and
CORDLESS TELEPHONES.**

ESSEX

WOODFORD CB CENTRE

528 Chigwell Road, Woodford,
Bridge, Woodford Green.
Tel: 01-504 9652

Open Mon-Sat 10-5pm
Large range of CB equipment.

HAMPSHIRE



BREAKERS WORLD

2 High St.,
Bordon, Hants.
Tel: (04203) 4684

Open 7 days a week
Fully equipped work-
shop

MON-FRI - 10.30-6.30pm.
SAT - 10-6pm. SUN - 10.30-1.30pm.

KENT

ONE STOP ELECTRONICS

126A Maldstone Road,
Rochester.

Tel: 0634 400179

The shop for the sale &
servicing of all radio com-
munication equipment.
Components available. Open
7 days a week.

BERKSHIRE

INTERCOMMS CB & TELEPHONES

Rigs, Aerials & Accessories.
Repairs and conversions -
crystal filters, K-tones etc.

Ascot TV Centre, Silwood Road,
Ascot, Berks.
Tel: (0990) 20234
Agents for 934 MHz

CB RADIO & MODEL HOBBIES

Parndon Mill, Parndon Mill Lane
(next to rugby club), Harlow.
TELEPHONE: 0279 418817

Open: Mon-Sat 9.30am-6pm
Sundays 10am-12pm

HERTFORDSHIRE

934MHz 27MHz

Largest selection of *Mail
CB Equipment Order
Service*

Communications Centre
37-39 Station Road, Rickmansworth,
Herts WD3 1QP.
Tel: (0923) 775571/770634
Mon-Sat 9am-6pm
Wed 9am-1pm and 3pm-6pm

FABULOUS PHONES

CB & Telephone equip. suppliers.
72 High Street, Oxford
Tel: (0609) 74051

Open: Mon - Sat 9am - 5.30 pm

BUCKINGHAMSHIRE

VANNER C.B. CENTRES

3 Croft Court,
Stony Stratford,
Milton Keynes 565981
34 Gloucester Avenue,
Northampton 66704
9.30-5.30 Closed Thursdays

Mail Order
Access/Barclaycard

COASTAL CB AND TELECOMMS

127 Old Rd., Clacton-on-Sea,
Essex. (0255) 474292

Open 7 days a week 9-5pm.
Sundays 9-12pm.

*Possible the cheapest in East
Anglia.*
Mail order or Securicor delivery.

HUMBERSIDE - SOUTH

Cleethorpes CB Centre

(Corrigans)

15 Grimsby Road, Cleethorpes.
Tel: 0472 40703

OPEN:
Monday-Saturday 9.30 am - 6 pm

MANCHESTER

CBR ACCESSORIES

289A Oldham Rd, Middleton,
Manchester M24 2JG

Tel: 061 663 2608

Open: Mon-Sat 9.00-5.30
For all your CB requirements, sales &
service. O.T.I. approved distributors
and service agents for Burndep
Electronics.

Communications equipment. P.M.R.
Hand portables, mobiles and base
stations.

BUY - HIRE - LEASE

CAMBS.

Tower Communication

Everything for the 27MHz &
934MHz CBr, Radio Amateur
or SWL.

★ First Class Sales & Service ★
11 High Street,
Haddenham, Cambs.
Tel: Ely (0353) 740308



GLOUCESTERSHIRE

RIGS & TWIGS

A Division of D.E.S.

(Established 1978)

Block 38, Upper Mills Estate,
Bristol Road, Stonehouse Glos.
Tel: Stonehouse 6710

Unit 73, M5, Stroud exit. First right
past 'The Ship Inn'

Open: 9-5 Mon-Sat.

Sales/Repairs/Mods
Plus: OSLs/Eyeball cards.
P.O. Box Facility.

The most complete C.B. Centre in the Country

KENT

IMAGEFREE

COMMUNICATIONS

1-3 Station Road, Rainham, Kent
Tel: Medway (0634) 373960 Ext. 2

Open 7 days a week.

Stockists of 27MHz 934MHz and
P.M.R. Reflex, Nevada, Cresbyte.
Mail Order Available.

WEST MIDLANDS

SQUARE WHEELS BIRMINGHAM'S LARGEST CB SPECIALISTS

★ appointed Birmingham's Cybernet
934 stockists
★ appointed K.S. Services expansion
engineers.

24 HOUR FM HIGH REPAIR SERVICE
BY MAIL ORDER, £15 INCLUSIVE
82 EDGEWOOD ROAD
REDNAL, BIRMINGHAM
Tel: 021-460 1581

ACCESSORIES

WHOLESALE

Giant vans with unrivalled giant range of CB and accessories. At your shop's doorstep regularly. Or come and see us.



WE DELIVER NATIONWIDE

TRADERS contact us, reverse the charges and **MAKE MONEY!**

Pama House, 433 Wilmslow Road, Manchester M20 9AF
Tel: 061-445-8918
061-434-5701
Telex: 666762



BREAKER BASES

WEST MIDLANDS

BUFFALO BILL

CB Radio & Accessories
100 Walford Rd., Sparkbrook
Birmingham 11 021-772 2066
SAE for list of our
Extendable Range of
Mobile & Base Antenna
OPEN 6 DAYS 10-6

NORFOLK

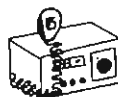
B A YEOMANS & SON

65 North Walsham Rd.,
Norwich, Norfolk Tel: 46294

Discount CB/Anything electrical.
Savings just a phone call away.
Used CB bought and sold.
CB REPAIR SPECIALISTS

SURREY

GUILDFORD CB



Surrey's biggest stockists of CB equipment and accessories.
Low prices, technical know-how.
Repairs, 934 and Amateur.
Cobras and Yaesu wanted.
34 Aldershot Rd., Guildford 574434

SUSSEX

The C.B. Centre



Inrange Ltd, 8 Marine Court,
St. Leonards on Sea.
Tel: Hastings (0424) 443185/442025
Open: 7 days Mon-Sat 9.30-6.30
Sun 11.30-2.30. Retail & Wholesale

NOTTINGHAMSHIRE

FRANK GODFREY AERIALS

Tel: 09094 72829
24-26 Ryton Street, Worksop
934 MHZ.

Telephone for special offers 27 MHz
most CB equipment stocked.

CB CENTRE

20C Saladon Road, Sih Croydon.
Tel: 01 - 680 4503

All CB equipment available.
Good repair service. Telephone
equipment and answer phones.
Car telephones and cellular.

OPEN:
9.30am-6pm Monday-Saturday.

STAFFORDSHIRE

C.B. CENTRE

359 Glascoate Road,
Tamworth.

Tel: (0827) 65902
We are on the B5000 Road.
Look for the C.B. sign.
Open 9.30-5.30
Closed Wednesdays & Sundays
ACCESS. VISA

HEWARD'S HOME STORES LTD (Established 1963)

822/4 Kingstanding Road,
Birmingham B44 9RT.
Tel: 021-354 2083
G4RJM with 38 years in The Radio
Trade. Ham Equipment urgently
wanted Open: Mon-Sat 9-6
WE WELCOME ALL CB'ers

SUFFOLK

MARSHION ELECTRONICS

366 Spring Road, Ipswich, Suffolk.
TEL: Ipswich (0473) 75476

Open: 9.30-5.30 Tues-Sat
CB 934 and electronic
components

WHY NOT TRY US FIRST?

YORKSHIRE

LEN BERRY ELECTRONICS LTD.

We monitor channel
0723-373914
or eyeball at:
147 VICTORIA ROAD,
SCARBOROUGH,
YORKSHIRE

MERSEYSIDE



PHONE US FIRST 27+ 934 now in
stock
Speedy Repair Service. All leading
brands in stock. The Mobil Garage
(opp the Graffen Rooms), West Derby
Road, Liverpool 8. Tel: 051-263 2010

OXFORDSHIRE

MODULATIONS COMMUNICATIONS

62 Wootton Road,
Abingdon, Oxon.
OX14 1JD
Tel: 0235 - 21400
Open: 6 days Mon-Sat
9-5.30

Instant credit facilities. Agents for
934 MHZ. Wholesale, Retail and
MAIL ORDER.
Send £1.00 for catalogue.



SUSSEX

BRIGHTON COMMUNICATIONS

Open 7 days a week
Mon-Fri 9-6 Sat 10-5.30-Sun 10-3
We offer repairs on all equipment.
Phone now for best prices.

Tel: Brighton 683177/608279
20 Clermont Road, Preston Park,
Brighton, Sussex
Mail order service. Access/Visa

SOMERSET

YOUR SOMERSET BASE STATION

The Triangle, Castle Cary,
Somerset (0983) 50433

Large selection of rigs, cordless
phones, extension phones and
accessories. the best and cheap-
est in the West! Open 6 days. Easy
parking. 9am-1pm. 2pm-5.30pm.

THE C.B. SHOP

The Communication Specialists
CB-PMR-CORDLESS PHONES
5 Odeon Arcade, Hallgate, Doncaster.
South Yorkshire. DN1 3LZ
Telephone Doncaster (0302) 66352

ACCESSORIES

WHOLESALE

Giant vans with unrivalled giant range of CB and accessories. At your shop's doorstep regularly. Or come and see us.



WE DELIVER NATIONWIDE

TRADERS contact us, reverse the charges and **MAKE MONEY!**

Pama House, 433 Wilmslow Road, Manchester M20 9AF
Tel: 061-445-8918
061-434-5701
Telex: 666762



BREAKER BASES

SCOTLAND

GOLDFINGER CB

Beech Wood
Blair Forge
Blairadam, Kelty,
Fife, Scotland.

Telephone: 0383 739110

SCOTLAND

INTERNATIONAL COMMUNICATIONS

58 Fountainbridge Edinburgh EH3 9PY

CB Radios from £25 to £250
SAE for free list. £3.00 for radio catalogue. Refunded on purchases over £35. Business Professional 2 Way Radio Systems from £195.

WALES

CAERPHILLY CB CENTRE

CB Rigs 55 Van Road, Caerphilly, Mid Glamorgan. Tel: 0222 682450

Easy parking. 10am-1pm, 2-15pm-6pm 6 days. Keen prices. All accessories. Good service by Rig Doctor

LET THEM KNOW YOU'RE OUT THERE WITH BREAKER BASES PHONE

01-437 0626

CLASSIFIED ADVERTISEMENT — ORDER FORM

IF YOU HAVE SOMETHING TO SELL, NOW IS YOUR CHANCE. DON'T TURN THE PAGE — TURN TO US!

RATES OF CHARGE: 35p per word per issue (minimum 15 words) £7.00 per single column cm. Please indicate heading you require and post to: **CITIZENS BAND, Classified Dept., 1 Golden Square, London W1R 3AB.**

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Please place my advert in **CITIZENS BAND** for issues commencing as soon as possible.

I am enclosing my Cheque/Postal Order/International Money Order for (delete as necessary) £ (Made payable to A.S.P Ltd)



OR Debit my Access/Barclaycard (Delete as necessary)



| | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

All classified advertisements must be paid for in advance.

Please use **BLOCK CAPITALS** and include post codes

Name (Mr/Mrs/Miss/Ms)
(delete accordingly)

Address

.....

.....

Signature..... **Date**.....

Daytime Tel. No.

MOONRAKER



Golden Lance

**Gets you clean
away from
the crowd**

SPECIFICATION

- POWER RATING — 1000 WATTS.
- FREQUENCY — 25.5 MHz — 28.5 MHz
- S.W.R. — PRE S.W.R.'D AND INDIVIDUALLY TESTED.
- MATERIAL — HIGH QUALITY 17.7 PH GAUGE STAINLESS STEEL TAPERED WHIP.

THE ULTIMATE

By Design

All Moonraker products are designed and manufactured to Superior Standards. Available from your local CB Store.

MOONRAKER Unit 19, Britannia Estate, Leagrove Road, Luton, LU3 1RJ. TRADE ONLY