

basic operation of an HF amplifier but is enough to stop any 'funnies' when used in the correct place.

The other method of constructing small chokes is to use ferrite beads. These are normally used in lower power applications such as the return path of a 2 metre RF amplifier as shown in Fig. 2, or for

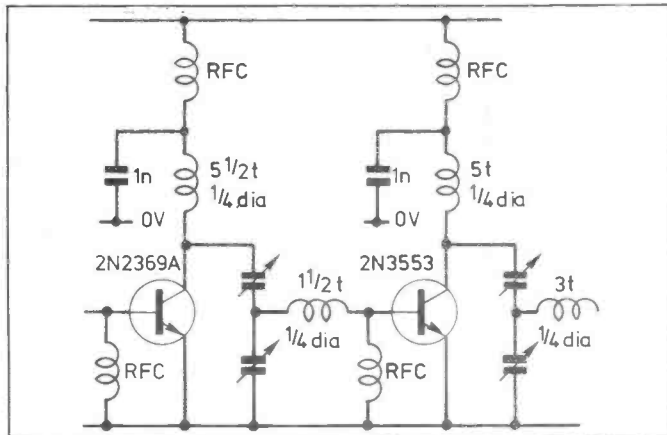


Fig. 2. Part of 2m transmitter showing use of ferrite bead chokes
N.B. all chokes labelled RFC are wound on ferrite beads as described

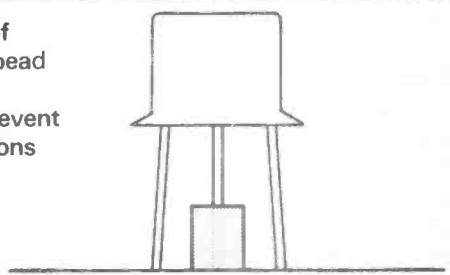
protecting the input of an audio amplifier from RF. The chokes are very easily made up by winding three turns (normally) of enamelled copper wire on a ferrite bead as shown in Fig. 3. The type of bead which is probably most often used is the FX1115, but most other types available from component stockists will



Fig. 3.
Diagram showing construction of ferrite bead choke

perform just as well, because the specification required for most applications is not tight. The inductance of these chokes is not only increased by the fact that they have a ferrite core but the fact that the core is toroidal. Because of this it is not possible to use the formulae. I have just given to calculate the inductance. These beads can also be used to supply a small amount of inductance to suppress parasitic oscillations in circuits such as that shown in Fig. 4. The bead can simply be slipped over the gate lead which overcomes the problem of adding extra components onto an otherwise untouched board. I have in fact used this method in a VHF FM tuner which I built, and it very successfully suppressed the unwanted oscillation.

Fig. 4. Method of placing a ferrite bead over a transistor or FET lead to prevent parasitic oscillations



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WPO COMMUNICATIONS

PROJECT HIGH PERFORMANCE HF TRANSCEIVER

Are you building Project Omega yet???

This unique HF Transceiver project commenced publication in the JULY issue of HAM RADIO TODAY and has already attracted a large following. The November issue (published October) sees Omega as a 9 band CW Transceiver with the publication of the QRP PA and Logic/Antenna switching units. December will see the Low Pass Filter unit and Tx/Rx SSB adaptors to make the SSB version — audio processing and VOX included. Other add-ons will include a 2 metre Unit (usable with any HF rig) and in-line SWR Bridge. Many of these units will work with 4CLF/3ZVC designs (phone for details).

Kits available so far:

Main CIPPU unit (i.f.)	£69.50 (July HRT) (pcb only £6.50)
Active Filter (SSB/CW)	£15.45 (July HRT) (pcb only £2.20)
Preselector	£11.00 (Aug HRT) (Pair pcb's)
Notch Filter	£11.20 (Aug HRT) £2.60)
VFO Unit	£64.00 (Oct HRT) (Pair pcb's £7.90) plus crystals @ 5.00 ea or £40 set of 10 (10.7MHz IF)
VFO Drive Kit	£5.80
Digital LCD Readout	£31.00 (Oct HRT)
Rx only SSB Adaptor	£6.20 (Oct HRT)
QRP PA	£21.00 (Nov HRT — Kits from Oct.)
Logic/Antenna Switch	£15.45 (Nov HRT — Kits from Oct.)

Watch these ads for the rest of the modules. Each kit is available just after publication of the relevant issue.

We have a mailing list for all actual or potential builders (ask to be put on if you are interested). This will carry latest info/mods, plus quick notification of any errors in the articles). Once the QRP PA is published, we shall also be starting an Omega Net on HF.

VHF to HF TRANSVERTER

Work the world with a VHF handitalkie

Originally published in the August issue of HRT to cover 20, 15 and 10 metres, this is proving to be a very popular kit. So much so that we now have another version covering 160, 80 and 40 metres! Using one of these kits will enable you to get on the HF bands with the minimum of expense using that expensive 2 metre multimode — whatever the VHF rig does on 2 it will now do on HF.

G4DHF's design gives you full transceive operation on either 20/15/10 or 160/80/40 using one neat little unit into which you just plug the VHF rig. RF output at HF is a minimum of 2 watts (typically 3 watts) and the unit is driveable by any 2 metre rig. Ideal for base/portable/mobile working. Direct frequency translation from your VHF rig dial or readout. Our kits come complete with all the components in the article for three bands, including the tuning capacitor, drilled pcb's (pair), wire etc. Extras needed are some tinfoil for screens plus a VHF rig/antenna/PSU. +12/15v operation. The 20/15/10M version is £72.75 inc 3 crystals, and that for 160/80/40 — £74.00 inc. Additional constructional notes included.

GET ON HF FOR UNDER £40

Our very popular Double Sideband/CW 80 metre Transceiver kit is now available for 160M as well. Published in March HRT, there are now over 200 of these in use. Simple design with minimal alignment gets you on 80 or 160M. Superb receiver performance at low cost. 3-4 watts output. Kit includes all components, VFO capacitor, drive, drilled pcb, wire etc plus additional constructional notes. Also the Omega Active Filter works well with this design for additional selectivity. Both kits priced at £37.45 inc (order as DSB80 or DSB160). Active filter £15.45 inc.

All prices include VAT/post. Allow 1-4 weeks for delivery. All kits as complete as we can make them including detailed instructions and alignment backup if needed. C.O.D. service available over £30. MAIL ORDER ONLY — CASH WITH ORDER. EXPORT no problem. Overseas deduct 3% from prices above. SAE or Phone for more details and lists.