

Power for the rig is derived from 8 internally mounted C size ni-cads or alkaline batteries, or an external DC source, taking 100mA on receive and 750mA on transmit (FM/1W). One word of caution — there is no reverse polarity protection, so watch battery insertion and especially the DC power plug which is wired with the outer conductor as the positive connection. The manual warns that serious damage will result if incorrect polarity is used — there are means of protecting against this without any major voltage drop, and for the sake of a few extra components...

The usual comprehensive Yaesu manual is provided, with full user and alignment instructions, with all test points etc clearly marked on photographs of each of the boards.

Internal construction is typical of the Yaesu style for VHF/UHF rigs, very compact but well engineered. Most of the circuit is on one side of the case and behind the front panel, with the batteries occupying about 75% of the space under the lower cover. Anyone using the rig mainly for portable applications would be well advised to use the optional Ni-cads — dry cells work out very expensive even over a short period of time.

What it does

Control over the frequency and facilities is by the 4-bit microprocessor, with access to the external world via 8 small keypad type buttons, plus two on the microphone, allowing scanning in both directions, either of the main dial or the 10 memories. The only disadvantage of the main dial scan is that you have to scan the whole frequency coverage i.e. 430-440MHz, and it would have been nice to be able to select just a 1MHz scan window — there isn't usually much to be seen above 435MHz, and normal activity is centred around two specific areas. The step rate is governed by one of the selector keys, either 100Hz/1kHz or 25kHz/100kHz for SSB/CW and FM respectively. Frequency selection is by either the main photo-chopper dial, using either of 2 keypad selectable VFO's, or by scanning, using the up/down buttons on the microphone supplied.

While in the scan mode, you have the choice, by means of a slide switch inside the case (cover easily

removed), of stopping on busy or clear channels, or a manual stop. When scanning is halted by a signal, the channel will be monitored for 5 seconds, after which the scan is resumed until the next signal is found.

Priorities & memories

An alternative 'priority channel' scan is also allowed in which one of the memory channels is selected as a priority channel. Assuming the main dial is then selected, the memory channel will be checked every 5 seconds for activity — if a signal is found then the receiver stops on the memory channel.

The memories themselves are easily loaded with any frequencies within the tuning range — the dial is set to the required frequency and then programmed into one of the 10 channels by depression of a single button. This is a very useful facility on 70cm where you can spend most of the evening tuning around looking for stations. By memorising say, the local repeaters, calling frequencies (both FM & SSB) and some of the simplex channels most activity will be caught.

Also, a memory back-up is provided so none of the channels will be lost when the rig is switched off — this applies also to the 2 VFO's, both of which return to their last used frequencies when switched back on. The back-up lithium battery cell comes with the rig, but with

this facility de-selected on the internal switch.

Full repeater facilities are offered, with both + and 1.6MHz shifts (or other splits by use of the memories), together with a tone burst, controlled by one of the keypad buttons, OK for portable and fixed use, but not very sensible for mobile, although most 70cm repeaters whistle up easily enough.

One useful addition is a Clarifier control (or IRT if you like). Depression of a keypad button shows 'CLAR' on the display, and the receive frequency may be altered, to a maximum of 10kHz, in steps of 100Hz by the main tuning knob or the microphone buttons. This functions in all modes with the same step rate.

The rear apron of the rig has a few more switches. Battery check, lamp for S-Meter/backlit LCD display, and noise blanker options can be activated, together with low power (0.2W) output, if you really want to conserve the batteries. External power (3.5mm) and charge (2.5mm) jack sockets for the optional ni-cads, an external DC socket, and the case lock latch complete the line-up.

On the left side are two additional jacks (both 3.5mm), one for an external PTT (foot switch sug-

It's a bit large and heavy for a handitalkie, and a bit awkward to use as a mobile. However, it offers excellent performance and would make a sound basis for a 70cm station as the prime mover

