

FDK Multi-800D 2-metre transceiver

Sideband Electronics Imports, of Springwood, NSW, have submitted a sample of the FDK Multi-800D 2-metre transceiver made by the Fukuyama Electronics Co, Ltd, of Japan. Many Australian amateurs are already familiar with this company's products, particularly the "Multi-7" 2-metre transceiver of a few years ago.

The standard of modern transceivers is so high that, in terms of basic performance, it is difficult to pick one unit over another. Receiver sensitivity, for example, and for all practical purposes, turns out to be almost identical for units in the same class.

The same applies to most other basic specifications, so that the final choice is more likely to be based on the features which a particular unit offers.

Having said that, it will come as no surprise when I say that the Multi-800D performs very much as we have come to expect modern 2-metre transceivers to perform; the effective sensitivity is excellent, there is complete freedom from spurious signals, and there was no sign of cross modulation effects. Similarly, the transmitter performed well in every way.

So let us look first at the features which this transceiver has to offer. As is common practice, it uses a phase locked loop synthesiser for frequency selection, and covers the full 4MHz of the 2-metre band in 5kHz steps.

The novelty in this case is the method of frequency selection. It is by an internal counter which is activated by a panel knob with a choice of three different counting speeds, plus a one (5kHz) step-at-a-time facility.

The knob is spring loaded and is turned clockwise for an increase in frequency and anti-clockwise for a decrease. The first position in each direction gives the one step at a time, or notching, facility.

The second position steps across the band at a rate of 20kHz/sec., which is quite slow, the next position at 100kHz/sec., and the final position at a fast 500kHz/sec. This last covers the entire band in approximately four seconds. When the counter reaches either end of the band it skips back to the opposite end, and commences over again. While counting, the set emits an audible tone every 100kHz.

A memory circuit allows any selected frequency to be held while another frequency is selected and used. Any frequency which has been selected, or stored in the memory, is retained when the set is switched off, provided this is by means of the panel knob only.

The frequency is read out on a four digit LED display, giving the last MHz figure, followed by the 100kHz, 10kHz and 5kHz figures. It is a bright red display, readable in any reasonable ambient light condition.

A feature associated with this is an external display unit, available as an optional extra. It connects to a multi-pin socket on the back of the set via a cord about two metres long and mounts by



an adjustable bracket. It is intended primarily for mobile use, to allow the frequency readout to be presented in the most convenient place, such as the top of the dashboard. The figures are slightly larger than the main display, and are green rather than red.

An auxiliary switch provides for simplex or repeater operation, with +600kHz and -600kHz splits, and a free split position. This permits any combination of transmit/receive frequencies to be used, in conjunction with the memory circuit. When split frequencies are being used the digital display changes with the change from receive to transmit.

The transmitter is rated at 25W output, rather than the more common 10W rating, yet the set is not significantly larger than other makes. The power output is continuously adjustable from 1W to 25W by means of a panel knob — a feature not found on many other sets.

A small panel meter serves as an "S" meter for receive, and as an RF power indicator on transmit, but is a relative indicator only in the latter mode, without calibrations.

There are two auxiliary speaker sockets on the rear panel. One drives the external speaker only; the other allows both the internal and external speakers to function.

The set is sturdily built and well finished. It is provided with a handle which doubles as a stand for bench use, and a versatile mounting bracket. It fits in runners in the side of the set, thus simplifying fitting it to, or removing it from, the vehicle.

Tested on the air, in a typical amateur situation, the set performed extremely well. Effective receiver sensitivity, as judged subjectively, was at least as good as others in its class or, in some case, marginally better. However, the difference was more academic than practical.

The method of frequency selection takes a little getting used to but, once the strangeness wears off, it can be used very effectively. Naturally, the fast count is used for major moves and the slower ones as the required frequency is approached. The last few 5kHz steps are notched up.

Reports on the transmission were all

favourable, with some spontaneous comments on "... a nice audio quality."

The instruction manual contains a circuit diagram and a block diagram, as well as normal set description and operating instructions. The circuit diagram has been reduced considerably, but is still quite legible. However, the instructions suffer badly from "Japanese English" in places, to the point where some would be confusing if taken literally. However, we doubt whether this would worry many amateurs.

For the amateur who needs one set for both base and mobile use, the external readout, the extra power, and convenient mounting arrangement are worthwhile features. The extra power may also appeal to the poorly sited amateur, as an aid to working distant repeaters.

Details of price and availability of both the basic unit and the optional extra display unit may be obtained from Sideband Electronic Imports, PO Box 23, Springwood, NSW 2777. Phone (047) 51 1395. (PGW)