

■ Equipment Review

Yaesu FT-2500M 2 m 50 W Mobile Transceiver

Reviewed by Ron Fisher VK3OM*



Front view of the FT-2500M with the matching MH-26G8J electret microphone.

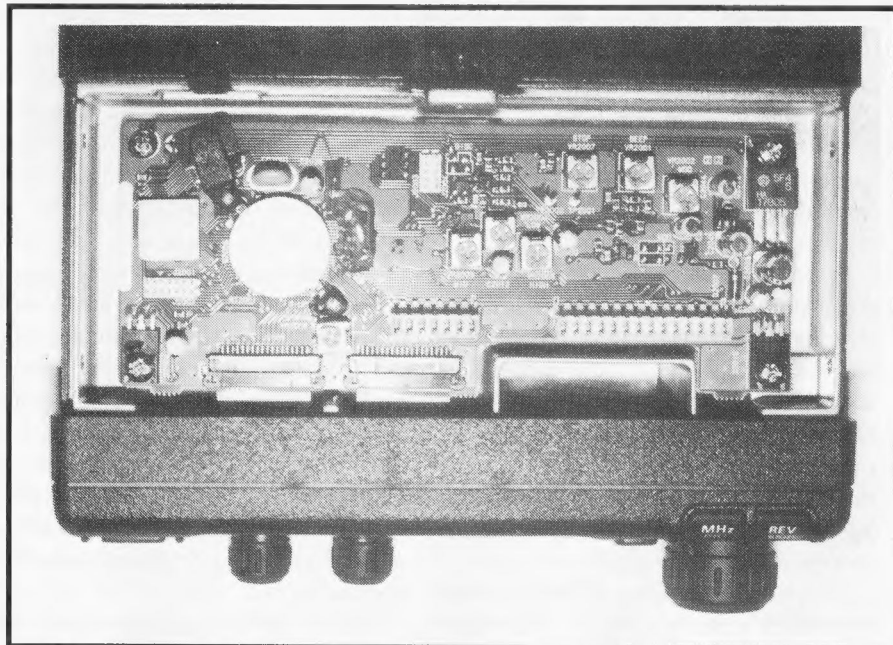
A few years ago I reviewed the predecessor of this transceiver, the FT-2400. This, and the new FT-2500, were designed to meet United States Military Specifications for shock and vibration. The construction is rugged with a one piece die-cast chassis. Maximum transmitter power output is fifty watts with selectable lower power of twenty five and five watts.

Frequency coverage on transmit is 144 to 148 MHz with extended receiver coverage from 140 to 174 MHz. There is no coverage of the AM aircraft band although other Yaesu models of a similar type do include this facility.

The FT-2500M measures 160 mm wide by 50 mm high and 180 mm deep. It weighs in at 1.5 kg which is a shade heavier than some of its contemporaries which, of course, reflects its more rugged construction. The transceiver is supplied with a solid mobile mounting bracket and a generous length of DC connecting cable.

The FT-2500M is designed for simplified operation with a minimum of

controls on the front panel. In fact, five of the controls are hidden behind a drop-down panel which makes for a very clean front panel appearance.



Top inside view of the FT-2500M. Note the pre-set controls for low/mid/high power setting (centre) and the beep level to the upper right.

Compared to the earlier FT-2400, the entire front panel has been improved with the tuning control moved higher and increased slightly in size. Unfortunately, though, the modular microphone connector remains which makes it difficult to connect a packet modem. An adaptor lead is available as an option to simplify packet operation. Talking of packet, the FT-2500M is capable of operating with 9600 baud packet but a fairly complicated modification is required. While this is fully described in the excellent manual it would need a fair degree of expertise to carry out. Dick Smith Electronics can undertake the work at minimal cost if requested. Of course, 1200 baud packet operation is available without any modifications.

Features of the FT-2500M include 31 tunable memory channels (isn't it interesting that the tiny FT-10R has over three times this capability), manual or automatic LCD illumination control, and the ability to name any of the memory channels. A CTCSS encoder is included but the decoder is an optional extra.

Originally the FT-2500M was to be supplied with the MH-27 DTMF type microphone but is now supplied with the MH-26G8J. It is this microphone which is pictured with the review transceiver.

The small button on the front of the microphone allows switching between VFO and memory operation, which is very handy. The original microphone also had a priority channel select button which is no longer available. Dick Smith Electronics informed me that the new microphone should have better audio quality compared to the earlier model.

FT-2500M On Air

Entering memories in modern transceivers can be an interesting exercise. Buttons held down for slightly different periods of time produce different results. It takes a little time to get used to the system. However, the instruction book is well written and therefore easy to follow.

On-air tests indicated that the new microphone sounded much the same as the earlier one. The transmitted quality sounded rather "spitty" with apparent over-deviation at the high frequency end of the audio spectrum due to a peaky microphone response.

FT-2500M On Test

The first test was to measure the

transmitter output, firstly at 13.8 volts and then at lower voltages to simulate a discharged car battery, and to check at what voltage the set stops transmitting. It is important to know these figures if you are out on an emergency exercise. To answer the last question first, the FT-2500M will continue to put out reasonable power right down to 9 volts. In fact, the output at that voltage is 17 watts.

At 13.8 volts the power output was right on the specified 50 watts and the current drain was 9.5 amps. Mid-power output, specified as 25 watts, was measured at 23 watts with the current drain at 6.5 amps. Low power measured 4.3 watts with 3.2 amps drain.

One of the important parameters with a mobile transceiver is the maximum undistorted receiver audio output. The specification rates this at 3.5 watts at 10% distortion with a four ohm load. My measurements confirmed this figure which was obtained with the volume control full on and with a full saturation signal into the receiver. The internal speaker is mounted in the bottom of the

cabinet which is probably the best compromise for the usual mobile installation. The internal speaker gives reasonable audio quality but, as usual, a good external unit is to be preferred for both mobile and home station use.

Receiver sensitivity is specified at 0.2 μV for 12 dB SINAD and again this was confirmed by my measurements. Squelch sensitivity was measured at less than 0.1 μV . Overall, the performance of the FT-2500M is first class with the possible exception of transmitted audio quality.

FT-2500M – the Bottom line

At a selling price of \$599, this transceiver represents excellent value, particularly if you need a transceiver that can stand up to a hard life and comes with a two year warranty. If you treat your equipment in a more gentle way you should be rewarded with a lengthy trouble-free life. Thanks to Dick Smith Electronics for the loan of our review transceiver; you should contact them for any further details.

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