

73 Review

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The Ranger AR-3500

Competitively-priced QRO 10m rig.

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Price Class: \$350

When I last reviewed a Clear Channel Ranger 10 meter rig, I came to a couple of conclusions. The first was that the rig was a reasonable, all-mode 10 meter transceiver. The second was that it wasn't the most operator-friendly in the world.

After evaluating the AR-3500, a higher-power, updated version of the original, I have found some improvements, and some areas where things are pretty much the same.

In a Nutshell

The Ranger AR-3500 is a microprocessor-controlled 10 meter transceiver with 100 Watts of output. An all-mode rig (AM, FM, SSB, and CW), it features true noise blanking and noise limiting. It has outputs for CW and an external speaker. An amber LED display gives resolution to the nearest 10 Hz. It covers 28.000 to 29.995 MHz and offers splits for repeater use. Specifications put the dynamic range at roughly 105 dBm, and spurious emission suppression meets FCC specifications at about 60 dB down. The Ranger AR-3500 also offers five memories, memory scan, and programmable band scan. It weighs roughly 5 pounds and is about as big as an older 2 meter rig.

Improvements Over the AR-3300

The Ranger AR-3500 is an improvement over the AR-3300, which I reviewed last year, in the following ways:

Instead of using one set of momentary-contact switches for increasing or decreasing frequency, there are now two banks of switches under the display. The top bank is for increasing frequency and the bottom is for decreasing frequency.

There is now a real, highly effective, noise-blanker circuit. You activate it by pushing in the RF gain knob. It pretty much cancels just about all mobile noise.

By pushing in the mike gain knob, you can now activate a true automatic noise limiting circuit. This feature complements the noise blanker and helps limit noise peaks.

The RIT control, called the clarifier, seems



The Ranger AR-3500.

to have been opened up a bit over the previous model and offers somewhat broader tuning.

These changes may seem small, but they make the Ranger AR-3500 far more pleasant to use. The ANL and noise-blanker circuits are especially welcome, as is the change to two banks of switches to move up and down frequency.

Still the Same

The areas that have not changed are still the same ones which we noted last year. They are:

There's no knob for the VFO. QSYing is button-controlled. To move up 10 Hz, you must press the far button on the right ten times. No automatic mode is implemented after several seconds, as is commonly done with other momentary-contact devices in the electronics world.

The CW mode is still strangely implemented. To use it, you have to insert the key, and key the mike while you're transmitting. It's an interesting two-handed exercise. It also indicates that the developers of this rig considered it primarily for mobile voice operation.

The amber LED display washes out in strong light. This is also true of the LEDs for the separate receive and transmit signal strength indicators.

Scan mode is only activated with

the squelch in a high position. It takes a lot of signal to overcome the squelch, which works in any mode.

If you want the convenience of using the mike instead of the up-down switches, you must purchase an up-down microphone. You must also purchase a CW board if you wish to use the CW interface correctly. The third option you must purchase as an added-cost item is a speech processor board. These features are usually standard parts of a \$600-\$700 transceiver.

Memory storage is only partially battery-backed. Memory is retained as long as 13.8 volts DC is supplied to the rig, provided you remember not to turn the memory reset switch off. If you turn it off,

memory goes away, even with the 13.8 volts DC input. This also means that if you move the rig, for whatever reason, there is no memory storage. However, we suspect in later versions of the AR-3500, the problem will be fixed.

Conclusions

So, the final verdict on the Ranger AR-3500? Despite the above shortcomings, it's an excellent rig. With 100 Watts and a fairly convenient size, we were able to work from New England to the Midwest reliably and with less than optimum band conditions. The extra 6.02 dB of power more than makes up for any shortcomings.

Also, you can set a repeater offset in memory and operate in split mode so that you can operate 10 meter repeater mode without making any changes, as is the case with other models on the market.

Finally, signal reports and audio reports were consistently excellent with clean, communications-quality audio reported just about every time.

And, last but not least, the price. The suggested retail on the AR3500 has come down dramatically—from \$600 to \$350—to make it truly competitive with the other popular 10m mobile rigs on the market today.

Given all the plusses, the AR-3500 is worth a look by the serious 10 meter operator. **73**