

Radio Shack's New Realistic PRO-2004 Scanner

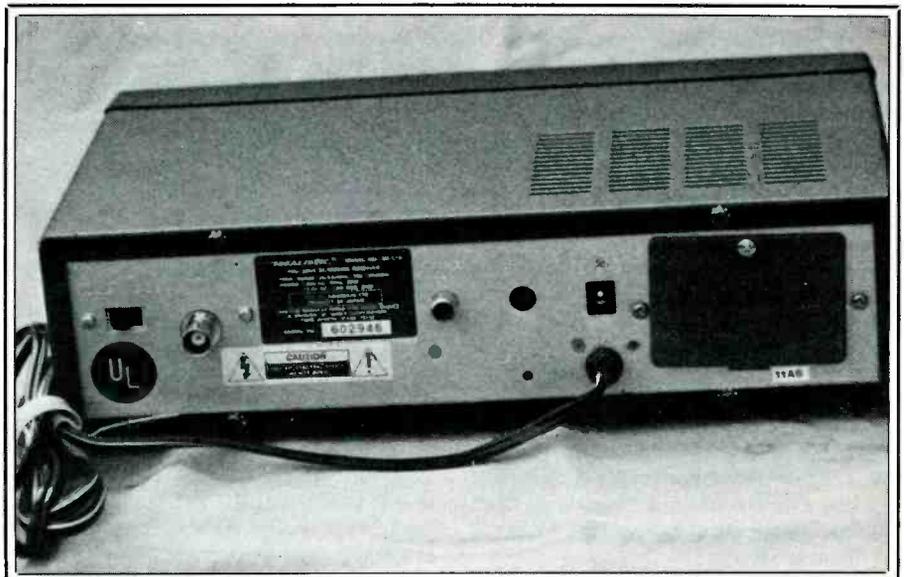
***It Covers From 25 To 520 MHz And From 760 To
1300 MHz – Well, Almost!***

Radio Shack's announcement of a 300-channel programmable scanner covering virtually every frequency (except some UHF-TV channels) between 25 and 1300 MHz was met with much joy within the ranks of scanners users. Prior to the PRO-2004 going on sale, however, Radio Shack had second thoughts about whether they wanted to actually permit this scanner to cover frequencies used by cellular mobile telephones (CMT's). As a result, before any sets were shipped out to stores or customers, the design of the equipment was modified to blank out the bands between 825 and 845 MHz, also 870 and 890 MHz. Inasmuch as the PRO-2004's boxes and instruction manuals had been made up, a note that explained the modification was slipped into each manual.

All of this has been cause for a considerable amount of talk about the PRO-2004 and also relating to Radio Shack's motives for making the change in the unit's specs prior to its release. The motive is simple—Radio Shack showed its support of the Electronic Communications Privacy Act (ECPA) that frowns upon listening to CMT communications. Radio Shack is in the CMT business and, although the ECPA didn't forbid the inclusion of CMT frequencies in the PRO-2004, the manufacturer probably felt it would be counterproductive to its successful participation in the CMT market to allow the PRO-2004 to cover those frequencies. Had the PRO-2004's ability to receive CMT frequencies never been announced, nor printed in so many places, it is probable that none of this would have been a matter of controversy. At this point, it's all moot. The PRO-2004 has arrived, sans CMT frequencies, and its quite a versatile piece of equipment nonetheless.

What It Is

Look back on what scanners were a mere



The controversial PRO-2004 is attractive and easy to operate.

ADDENDUM
PRO-2004
PROGRAMMABLE SCANNER
General Coverage AM/FM Monitor Receiver
Cat No. 20-119

Dear Customer,

The unit is changed so the following frequencies are not received. When you try to enter the frequency in these ranges, ERROR will be displayed. The search function also skips these frequencies.

825.000 to 844.995 MHz
870.000 to 889.995 MHz

Radio Shack
Fort Worth, TX 76102

Printed in Japan
86D-6887

Upon unpacking the PRO-2004, I found this note from Radio Shack.

ten years ago and you realize how far technology in this field has come; the PRO-2004 has 300 programmable channels, wide frequency range, and ease of operation.

A listing of all of the PRO-2004's features would be very lengthy, and would include selectable mode (AM, wideband FM, narrowband FM) operation, ten banks of thirty channels each, selectable search increments (5, 12.5, and 50 kHz), memory backup, battery warning alarm, a "sound squelch" that prevents the unit from locking up on a frequency with an unmodulated carrier, and the ability to store ten different scan/search bands.

The PRO-2004 has a priority feature that can be shifted to any channel, selectable (8 or 16 channels per second) scanning speeds, and the ability to store as many as ten frequencies located during scan/search for later transfer into the unit's regular programming memory system.

Yes, it does make the *beep* sound every time it's presented with a programming instruction. Like this or not, it has become a standard feature of practically all keyboard programmable scanners. Thankfully, the *beep* made by the PRO-2004 is rather low in volume (although it can't be adjusted or easily eliminated altogether) and probably won't annoy those who generally dislike the space-age sound effects.

The keyboard itself has its 29 individual microswitches covered over by a single sheet of plastic in order to resist the harmful effects of dust on the switches. This card is well marked (and colored in grey, blue, and bright yellow) to indicate where to press.

The frequency display consists of back-lit LCD's (black figures on a green background), and there's a dimmer switch. The display is designed well enough so that it can be easily read. It provides ample information to keep you well informed as to what the PRO-2004 is doing. You can even tell it to provide you with a directory listing of all of

the locked-out channels; a nice touch. Your reviewer's personal preference would have been for an LED display, however they probably wouldn't have been able to include all of the prompts and status information presently given.

The squelch is the kind I like. When the control knob is rotated, it gently slides into squelch mode rather than entering with an abrupt *pop*. In AM and NBFM modes, the squelch sensitivity below 520 MHz is rated at 0.5 μ V; in WBFM it's 3 μ V.

The owner's manual is adequately explanatory, being 23 pages in length and including a block diagram. The PRO-2004 does lots of tricks, some of which can't be easily figured out by trial-and-error. That makes the book a most important factor in using the PRO-2004. Actually, once you perform the various programming functions with the aid of the book's step-by-step guidance, they all seem quite simple and logical. I'd say that the PRO-2004 is definitely user-friendly.

The book shows a listing of 53 "birdies" in this scanner, although only a couple lie within the higher-interest bands; about half of them are above 783 MHz. There's an interesting feature of the unit; Radio Shack dubs it the *Zeromatic* function. I suppose a more appropriate or catchy name might have been concocted for this automatically activated circuit. It prevents the scanner from locking onto the modulation sidebands of signals instead of the actual center operating frequency.

Although some intermod and cross talk (as often noted with programmable scanners) was found on several frequencies, the PRO-2004 appears less prone to this than many other scanners put into use here. Radio Shack scanners, in general, have always had a pretty good track record in this department. While many scanners turn up 144 MHz band Ham images around 166 MHz, search as I might with the PRO-2004, none

were ever heard (thankfully). Likewise, the 118 to 136 MHz VHF aero band was also totally clear of the type of cross talk to which some other programmables fall victim.

The PRO-2004, in action, proved to be sensitive. Running it from an all-band scanner antenna, excellent reception resulted. I liked the 16-channel-per-second fast scanning speed, and I thought that the sound squelch function was a great idea. Operation was simple, and I liked that the PRO-2004 had a memory that permitted the unit to resume with whatever it was doing the last time it was turned off.

It's possible for the user to open up the set and cut one diode in order to restore operation in the missing 825 to 845 MHz and 870 to 890 MHz CMT bands.

Notwithstanding the missing CMT frequencies, Radio Shack's PRO-2004 was found to be well designed, filled with wall-to-wall features, well made, attractive to the eye, relatively simple to operate, versatile, and a good performer all around. It weighs 7 lbs., operates from 120 VAC or 13.8 VDC, and is supplied with a telescoping whip that attaches to its BNC-type antenna connector. Audio is supplied by means of a top-mounted speaker, a front-panel headphone jack, a rear-panel high level output tape jack, or a rear-panel external speaker jack. A rear-panel attenuator switch can be activated to cut strong signals by 10 dB.

Radio Shack's Realistic PRO-2004 is an excellent scanner.

Reviewed by F.X.F., North Dakota

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