Radio Shack Pro-97 Decent Performance at a Decent Price

By Larry Van Horn, N5FPW MT Assistant Editor

hen I got my first look at the Radio Shack Pro-97 scanner (Catalog number 20-527), I was disappointed to see that it was not packaged in a box like a lot of other higher end (over \$200) scanners in the marketplace. This scanner was in a clear plastic blister pack, which raised all sorts of red flags for me. Maybe I am a bit spoiled, but I tend to associate anything packaged in a blister pack as a low end product in a company's product line.

Despite my initial impression based on the packaging, I decided to take the radio for a spin, and the final result, as you will see, was a pleasant surprise.

Product Overview

The Pro-97 is an analog only, conventional and trunk tracking handheld scanner. This triple conversion scanner has 1,000 memory channels divided into 10 banks of 100 channels each. The scanner cruises along at 75 steps per second (search mode) and 60 channels per second memory scanning rate. Image rejection is excellent, thanks to the triple IF stages at 455 kHz, 21.4 MHz and 380.8 MHz.

The table below shows the frequency coverage and tuning steps programmed for each band.

Frequency Coverage/Steps: 5 kHz 25-54 MHz 108-136.99166 MHz 8.33 kHz 137-174 MHz 5, 6.25, 7.5, or 12.5 kHz 216.0025-225.0000 MHz 5 kHz 225.025-405.975 MHz 25 kHz 406-512 MHz 6.25 kHz 806-823.9875 MHz 6.25 kHz 849-868.9875 MHz 6.25 kHz 6.25 kHz (ex-894-960 MHz cluding cellular) 1240-1300 MHz 6.25 kHz

The case measures (HWD) 5-3/4 by 2-9/16 by 1-5/8 inches (145 x 65 x 42 mm). It weighs 8.5 oz. (240 grams) without antenna and batteries and 13.0 oz (366 grams) with antenna and batteries.

There is an amber colored back light system for both the display and keyboard. The display measures 11/16 by 1-5/8 inch and is a liquid crystal display that is easy to view at all angles.

Unlike the newer Uniden scanners, the Pro-97 does not use a menu driven system in programming the radio. In fact, programming is pretty straightforward as most of the GRE models are. The user interface and keyboard is well thought out and user friendly. We were able to program most of the functions without referring to the user manual.

What's in the "box"?

In addition to the scanner, the package also included a six inch rubber duck (BNC connector) antenna, plastic belt clip, non-rechargeable and rechargeable battery holders (no batteries





MT Rating: 3 out of 5 Stars

included), user guide, quick start guide and preprogrammed frequency addendum.

The Pro-97 uses 9VDC, but the AC adapter is not included. It can be purchased separately (listed at \$13.99 Catalog #273-1767). A nice touch is the availability of an optional DC adapter for use in a vehicle (listed at \$16.99 Catalog #273-1863). Also the PC interface/cloning cable is not included. It uses a non-standard interface that can also be purchased from Radio Shack (listed at \$24.99 Catalog #20-289).

There is no mention in the packaged literature or on the Radio Shack website of any PC interface or cloning software. I would recommend checking with Computer Aided Technologies (an MT advertiser) to see if they are going to offer support for this scanner in their popular ScanCat software package.

The plastic belt clip is definitely a weak link in this scanner. While it is made of a hardened plastic, my experience with this sort of clip is that they don't last long. And, unlike some of the previous models produced by GRE, this clip slips on to the back of the scanner (not attached by screws), so the user probably won't be able to attach a studier clip.

Checking under the hood

The Pro-97 has a very nice feature set for the price. Some of these features include:

- Trunk track Motorola, EDACS and LTR analog systems.
- Álpha-numeric display for ID tagging allows frequencies to be easily identified by the name you assign to them.
- Digital weather alert indicates watch, warning, statement or test statement along with seven preprogrammed NOAA weather channels.
- Five service search keys for marine, fire/police, air, CB and Ham bands.
- AM/FM mode selector.
- 20dB attenuator.
- One priority channel.
- Key lock for safety, key tone on/off and frequency lock-out

MT First Look Rating (0-10 scale)	
Audio Quality	.7
Audio Levels	8.
Back light/Display	8.
Battery Life	.7
Ease of use	.7
Feature Set	. 6
Keyboard/Button/Control Layout	.7
Overall Construction	.7
Overall Reception	.7
Overall Manual	.7

- · Low battery indication and power save.
- · EEPROM memory backup.

The Pro-97 incorporates the new "Signal Stalker II" technology. Like its Uniden "Close Call" counterpart, SSII provides a powerful new tool to rapidly detect, monitor, and store frequencies of nearby radio transmissions. The Signal Stalker feature is similar in functionality to portable frequency counters that cost much more than the Pro-97 scanner; however, it provides a number of advantages over the typical frequency counter.

Signal Stalker allows the user to sweep the entire range of the Pro-97 scanner's design frequencies, or you can specify those frequency ranges that you wish to sweep and exclude ranges that you do not want to sweep. This allows you to omit frequency ranges with constant, strong frequency activity, such as those with paging or broadcast transmitters. Many portable frequency counters will remain locked to a nearby constant signal, such as a paging or broadcast transmitter, and will not function properly until you have left the vicinity of the transmitter.

The Signal Stalker II feature is more sensitive than portable frequency counters and will detect transmissions at a greater distance. You can activate the attenuator to reduce the sensitivity if desired

Like a frequency counter, once an active frequency is found, you can quickly store it into any memory location. But, the most significant difference between Signal Stalker and a typical frequency counter is that the captured transmission is also played through your scanner's speaker.

Overall Rating and the Bottom Line

Battery life was good. Using four AA 1800 mAh Ni-MH batteries we got about 18 hours of usage before we had to recharge our batteries. Audio was also excellent using the built in 1-3/8 inch speaker. Battery charge current rated at 150 mA and drain was 90 mA with the unit squelched.

While there is a lot I like about this scanner, I do have some complaints. In addition to some of the items I have pointed out in the narrative above, there is no digital decoding capability. Given the changes we see today in the public safety, federal government and military land mobile frequency bands, the absence of a digital decoding capability and trunking digital systems is definite negative.

The manual is written on a basic level, easy to understand and follow, but we did note several typos and the receiver specifications for two of the bands that the unit covers were entirely omitted frm the specification sheet.

The civilian aircraft band step size shown in our frequency table above is not a misprint: GRE, the manufacturer of this product for Radio Shack, put in the European civilian aviation spacing standard instead of what we use here in the U.S. Even though the U.S. will reportedly eventually change to that spacing at some point, that change is still sometime off in the distant future. This is a major error in the scanner's programming that will directly affect civilian

aircraft band searching and the proper readout of the frequency being monitored. This spacing does not affect any frequencies entered from the keyboard.

While we didn't put the scanner on the bench, our field test did seem to indicate a fall-off of sensitivity in the 225-400 MHz aircraft band compared to other scanners in our workshop. I was also disappointed that Radio Shack did not include a search function for this band, but you can easily program a custom scan for this band.

Bottom line, there is a lot of scanner here for the list price of \$219.99. If you live in an area where a digital system is not in use, or you want a scanner for the road for milair monitoring, or you want a decent second scanner for conventional scanning, then the Pro-97 is a good buy.

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