FIRST LOOK

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The GRE PSR-200

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Many years ago when I first started in the radio/scanner hobby, an old media friend of mine gave me some interesting advice, "you can never have enough scanners." He worked on the news desk in a major market news desk and monitoring scanners was his business. I was always amazed how he could cut through all the chatter from a dozen or more scanners and never miss the really important communications that ended up being important news stories.

Well, I have also learned over the years how to use the various scanners in my shack to their maximum potential in monitoring my local radio spectrum. As he told me back in the old days, it is a balance of what frequencies you program into a scanner, how much and what kind of traffic each of those frequencies carries.

Until recently, around here in Brasstown we didn't have a single trunk radio system serving our area. All of our communications consisted of simplex and conventional repeater communications. The only 800 MHz communication systems we had until last year were cellar telephones (put up just prior to the 1996 Atlanta Olympics).

Our scanner requirements up here in the mountains were simple. A basic scanner with as many channels that I could get fits the bill for public safety, with additional scanners for federal, military and civilian air here in the mountains of southwest North Carolina.

Twelve years after moving to NC, I still have a lot of communications in my area that are not digital or trunked that I like to monitor. I really don't like the thought of spending nearly $500 a unit to load up my shack with scanners that will only be used to monitor analog, non-trunked VHF/UHF public safety communications.

Then last year GRE released their new line of scanners including the PSR-200 desktop. It has no trunking, it is analog only and has 200 channels for only $99.95. Now that scanner is just what I was looking for! I can afford to buy one for civilian air monitoring, one for my local area public safety communications, and one for federal communication systems - 600 channels for around $300 bucks. What a neat receive capability this new GRE-200 scanners offers me in my monitoring post.
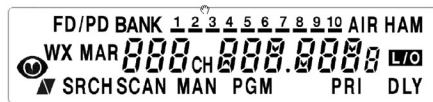
Case and Controls

The GRE PSR-200 case measures 8-1/4 (W) x 6-7/8 (D) x 2-3/8 (H) inches (210 x 175 x 60 mm) and weighs in at approximately 24.3 oz (690 g).

Front panel controls/switches on the PSR-200 include an on/off switch; volume control; a separate squelch control; and a keypad. Screen is an amber-colored liquid crystal display.

It's what is under the hood that counts

Looking inside the radio, we found a world of scanning capability for a scanner selling for under $100. Here are some of the PSR-200 features.

- One-touch service search banks: preset search frequencies in separate marine, fire/police, aircraft, ham, and weather banks.
- Quick program when receiving signals up to 200 channels.
- Scan delay: delays scanning for about two seconds before moving to another channel. This will let the owner hear more replies that are transmitted on the active channel.
- Priority channel: sets the scanner to check one channel every two seconds for increased surveillance of a channel of interest.
- Lockout function: skip over specified channels or frequencies when scanning or searching.
- Keypad for direct frequency entry and SAME/FIPS codes entry.
- Tune: tune for new and unlisted frequencies starting from a specified frequency.
- GRE's "Zeromatic" tuning system: Zeromatic tuning stops the scanner on the correct center frequency of a received signal when the PSR-200 is in the search mode.
- Display back light of the liquid crystal display that makes the display easy to read in low-light situations. 10 digit channel and frequency display with all function indicators (seven segment).
- Memory backup: keeps the frequencies stored in memory for an extended time during a power loss.
- Data cloning: transfer the programmed data to another PSR-200/100 scanner via and 1/8 inch patchcord (not included). You can also use the PC/IF jack for computer control with third party software and a PC (not included).
- Supplied telescoping antenna: Screw-in BNC telescoping antenna provides reception of strong local signals.
- External antenna connector: connect an external antenna (not supplied) with a BNC connector to the scanner for improved reception of distant/weaker signals.
- SAME/FIPS Weather alert: displays the weather event for the specific cities or counties. Will set off a tone if an alert is sounded from the monitored NOAA weather station. Weather alert and SAME programming with 10 FIPS area code memories. There is also a ham Skywarn receive function.

Frequency Coverage

The PSR-200 can monitor signals in the following frequency ranges:

29.0-54.0	10-Meter Ham, VHF Lo, 6-Meter Ham (5 kHz steps)
108.0-136.9875	Aircraft (12.5 kHz steps)
137.0-148.0	Military Land Mobile, 2-Meter Ham (5 kHz steps)
148.0-150.8	VHF Hi (12.5 kHz steps)
150.8-162.0	VHF Hi (5 kHz steps)
162.0-174.0	VHF Hi (12.5 kHz steps)
380.0-512.0	UHF Aircraft, Federal Government, 70-cm Ham, UHF Standard, UHF "T" (12.5 kHz)

This scanner is analog (AM/FM modes) only. It does not cover the 700/800 MHz public safety band and does not have a trunk tracking capability.

MT Rating [three stars]

★★★☆☆

TABLE ONE: SPECIFICATIONS

Ten Channel-Storage Banks:
20 channels in each bank (200 total channels)

Operating temperature:
Normal 32° to 110°F (0° to 43°C)

Scan rate: Up to 40 channels per second

Search rate:
Up to 80 steps per second (5 kHz step only) maximum

Delay Time: 2 Seconds

IF Frequencies:
1st IF 10.7 MHz; 2nd IF 455 kHz

IF Interference Ratio (10.7 MHz):
70 dB at 150 MHz

Spurious Rejection: (FM @154 MHz) 50 dB

Selectivity: ±8 kHz -6 dB, ±17 kHz -50 dB

Squelch Sensitivity:
Threshold Less than 0.5 μV
Tight (FM) (S+N)/N 25 dB
Tight (AM) (S+N)/N 20 dB

Audio output:
3 Inches (77 mm), 8 Ohms;
(10% THD) 0.7 W Nominal;

Power Requirements:
9 Volts DC (Supplied 9V AC or Optional 9V DC Adaptor), 50 mA (squelched)

External Jacks:
Antenna Jack - BNC Type 50-ohm nominal impedance
Phone/External Speaker Jack - 3.5-mm (1/8-inch) (if a speaker is used it needs to be an amplified speaker).
PC/IF Jack - Cable with 3.5-mm (1/8-inch) TRS phone plugs on each end (not included)
DC Power Jack - 9VDC jack, 4.75mm outer/1.7mm inner plug, center tip must be set to positive.

Dimensions (HWD):
8-1/4(W) x 6-7/8(D) x 2-3/8(H) inches
(210 x 175 x 60 mm)

Weight (without antenna):
Approximately 24.3 oz (690 g)

Note: Features, specifications, and availability of optional accessories are all subject to change without notice by the manufacturer. Information presented above was based on the test unit provided by the manufacturer. Specifications certified accordance with FCC Rules and Regulations Part 15 Subpart C as of date of manufacture.

❖ What's in the box?

In addition to the PSR-200 desktop scanner, accessories in the box include an AC adapter, a BNC telescopic antenna, and owners manual. The manual is well written and should be studied to get the most out of the PSR-200 and understand all of its operations.

❖ Overall Rating and Final Thoughts

This is a very nice, inexpensive scanner. Audio was excellent and sensitivity/selectivity was good. Even though this is a double conversion scanner, image rejection was good even on an external outdoor antenna.

The one feature I really like is the SAME/FIPS weather function. Not only can I monitor

MT FIRST LOOK RATING (0-10 SCALE)

Audio Quality	7
Audio Levels	7
Backlight/Display	7
Ease of Use	8
Feature Set	6
Keyboard/Control Layout	8
Overall Construction	9
Overall Reception	7
Owners Manual	8
Sensitivity	8
Selectivity	7
Spectrum Usability	4

ham, marine, train, aircraft, business and public safety communications, I can turn this scanner into a weather radio at the push of a button. When weather was threatening us here in the Brasstown area, I coded two area counties with their SAME codes, pushed the weather button and waited for NOAA to issue an alert. The scanner worked perfectly.

While this scanner is considered a desktop only scanner and it does not have a mobile mounting bracket, if you have access to a 9 VDC or 120 VAC power source, it is really small enough to take it with you. I can see this little desktop in use in a RV or boat.

But those of you who have read this column in the past know that no scanner is perfect. Right off the top: it has no digital decoding or trunking capability. On the other hand, at $99.95 I didn't expect it to. I was a little disappointed that this was a double conversion scanner. I am sure that if I took it into a metropolitan environment I would have quite a few images that would have interfered with in-band radio signals.

Bottom line, this is a very nice scanner. So if you are looking for a great bargain, these new PSR-200 desktops are just the ticket. It is a very affordable scanner with some nice innovative features. I consider this scanner is one of the best undiscovered treasures in the radio marketplace today.

The GRE PSR-200 (SCN 17) is available from Grove Enterprises (1-800-438-8155 or www.grove-enterprises.com) for $99.95 plus shipping.

9060.0	Mexican Army with MIL-188-141A ALE
9064.0	Globe Wireless ships with Globedata modem
9067.0	Egyptian Embassy, Havana with Codan 9000-series 16 tone modem
9080.0	Mexican Army with MIL-188-141A ALE
9081.4	Algerian Embassy, Havana with Co-quelet-8
9081.5	US Army and National Guard deployed in Iraq with MIL-188-141A
9082.0	US Civil Air Patrol with MIL-188-141A ALE
9098.6	FUG French Navy, La Regine with 600bd/L STANAG4285 modem
9106.0	Russian Diplomatic Service with CROWD-36
9106.0	Many US SHARES and MARS stations with MIL-188-141A ALE
9115.6	XNet Yachting Association with 100bd PacTOR channel free signal
9118.7	Unknown Egyptian Embassy with 100bd SITOR-A
9119.5	Many Virginia National Guard stations with MIL-188-141A ALE
9122.5	Many US Army Corps of Engineers stations with MIL-188-141A ALE
9126.5	Canadian Army Reserve with USB Voice and MIL-188-141A ALE
9136.6	Unidentified station with 250bd/170Hz CHP-200 ARQ
9157.0	HEC Globe Wireless, Berne Switzerland with Globedata modem
9166.0	US Coast Guard HF email network with MIL-188-110A modem
9183.5	Many US FBI stations with MIL-188-141A ALE
9200.0	NATO Military with 75bd/850Hz KG84 encrypted RTTY

That's it for this month. Enjoy your digital listening and please keep the letters and emails coming.