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Uniden BC898T Scanner

The Uniden BC898T is a 500 channel, tabletop scanner which follows conversations in conventional and several different types of analog trunked systems.

It is convenient to view the new BC898T as a significantly modernized version of the older BC895XLT (Dec. 1997 *MT*). Neither model supports a text label feature.

The BC898T is powered by 12 VDC and an AC operated wall wart power supply is included.

Frequency Coverage

The BC898T tunes all the "traditional" scanner frequencies with the addition of 216 - 400 MHz. Top end frequency coverage ends at 956 MHz and it doesn't tune the 75 MHz and commercial FM broadcast bands like the older, non-trunking BC9000XLT. The discontinued BC9000XLT tunes to 1300 MHz, but is too susceptible to reception of cellular telephone signals to meet today's more rigid FCC standards.

The manual specifies coverage of 50 - 54 MHz, but our BC898T cannot detect the 54.000 MHz signal from either of our signal generators when the radio is tuned to 54.000 MHz. Reception at 53.995 MHz and below is fine.

As in other reviews, we recommend that you download an electronic copy of the owner's manual from the Support section at **http://uniden.com** because there are many features we don't have space to discuss.

Steps, Modes

The BC898T supports more emission modes and types of trunking than the earlier BC895XLT. The new model lets you choose among AM, FM, and NFM (Narrow FM) modes for conventional systems. The Narrow FM mode is useful in light of the new FCC band plan regulations which allocate frequencies closer together and mandate that stations transmit with lower deviation and require less bandwidth.

One of the restrictions we noted with the earlier BC895XLT was that a user could not choose AM or FM mode, a flexibility which is valuable for monitoring in the military aircraft bands. The BC895XLT mode is set internally according to frequency and you have no say in the matter.

The new BC898T is more flexible. There is a default mode for each frequency, but the new model lets you override the default and choose AM, FM, or NFM.

Tuning step sizes are 5, 6.26, 12.5, and 25 kHz.

The BC898T's 500 memory channels are divided into 10 banks of 50 channels each. This is an increase from the BC895XLT's 300 channels. Each channel may be marked for selectable rescan delay, attenuation, and recorder activation.

Trunking Capabilities

The older BC895XLT supports only Motorola trunking and doesn't permit scanning a mixture of conventional systems and multiple trunked system banks. The BC898T supports more types of trunked systems and lets you scan a mixture of several trunked and conventional systems one after another. Like other Uniden models, you can mix conventional and trunked frequencies within the same bank, although no two trunked systems can occupy the same bank.

The BC898T tracks signals in these analog trunked systems: LTR; Motorola Type 2 VHF, UHF, 800, and 900 MHz band; Motorola Type 1; EDACS wideband (9600 bps), narrowband (4800 bps), and SCAT.

Due to the way Uniden implements trunk tracking, you must know the appropriate channel numbering for each EDACS and LTR system before programming its frequencies into the BC898T.

Each trunked bank supports 100 talk group IDs divided in 10 lists of 10 IDs.

Scanning and Searching

You can designate one conventional channel in each bank as a priority channel. When the priority feature is active, the BC898T checks the priority channel in each unlocked bank for activity.

Ten pairs of frequencies may be programmed for limit searching and limit search banks may be "chained" or linked together to search multiple ranges in succession. Up to 100 frequencies may be skipped during a limit search – half as many as the BC796D (May 2004 *MT*).

Auto Store permits unique, active frequencies found during a limit search to be stored automatically in selected banks.

Other Features

A small, 5 bar S-meter displays relative signal strength.

The recorder feature routes low level audio to the Line jack on the BC898T's front panel for memory channels marked with the Record flag. This differs from the older BC9000XLT which provides low level audio at its Line jack whenever the squelch is open. The BC9000XLT had an additional jack on the rear panel used to remotely control non-VOX recorders in conjunction with a Record flag.

Computer Control

The BC898T uses an industry standard DB9 9-pin connector for computer interfacing. Optional software will be available for purchase from the Uniden web site.

You can download a description of the BC898T's computer interface commands from the Uniden web site only after pledging to abide by Uniden's licensing agreement.

Performance

Our BC898T is sensitive below 512 MHz and fairly sensitive above 806 MHz. Like the other Uniden models we've connected to a rooftop antenna, our BC898T receives intermod in the VHF-high band when paging signals mix with 162 MHz range NWR broadcasts.

There is a pronounced chuffing noise when using the VFO tuning knob with the squelch open. The chuffing is much louder on our BC898T than on the BC9000XLT.

The squelch has a reasonable degree of hysteresis, but more than the GRE/Radio Shack models we tested. The squelch threshold varies by a small amount depending on the band.

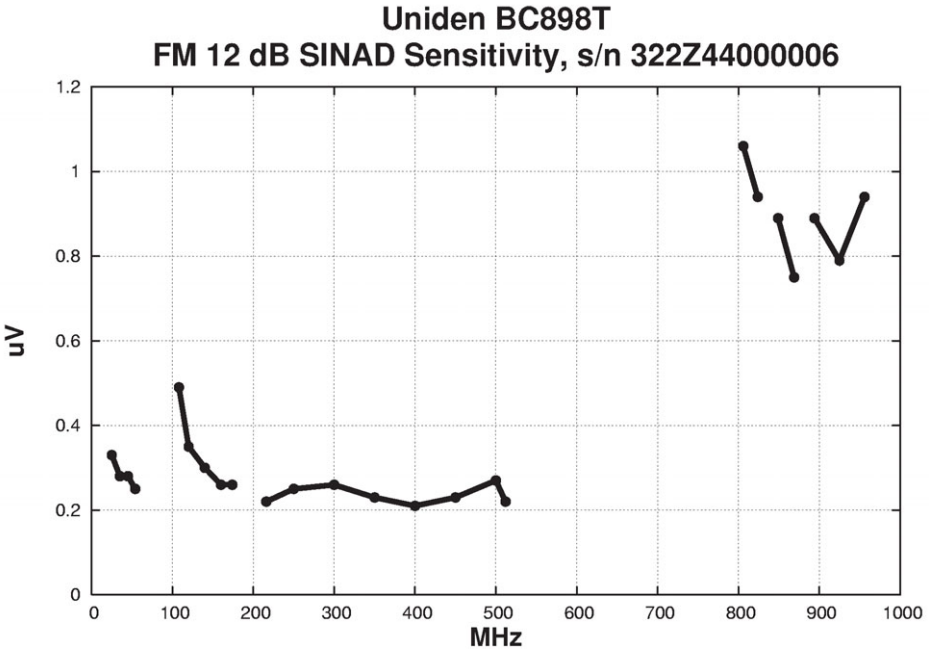
The audio level and fidelity produced by the top mounted speaker are adequate. The audio circuitry produced less than 3% distortion into a resistive load at maximum volume. As with most tabletop scanners, an external speaker pointed directly at the listener sounds better.

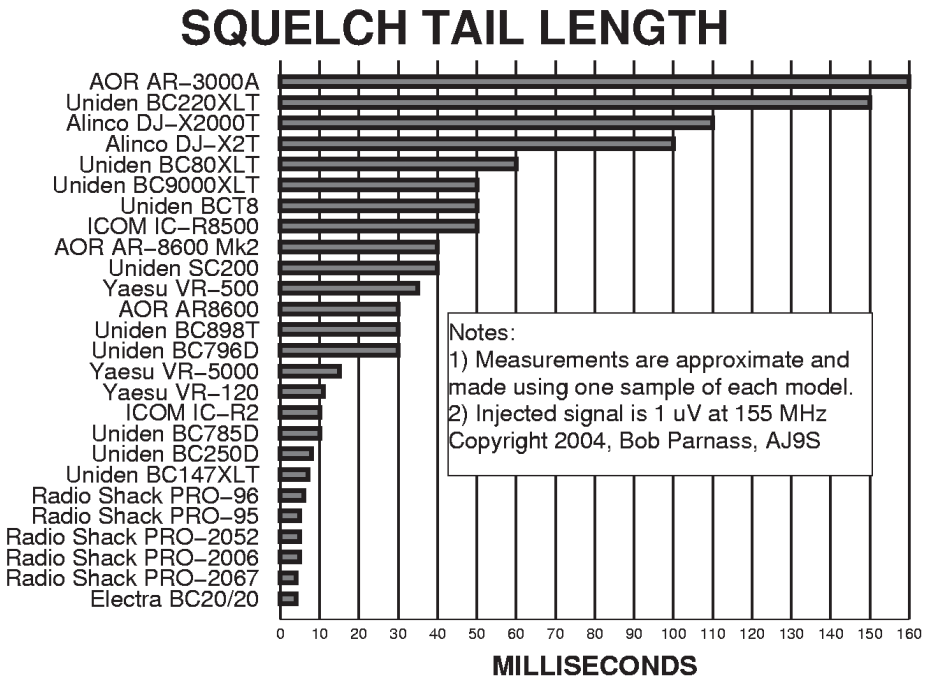
Our BC898T scans a mixture of conventional memory channels at a rate of about 25 channels/second. The older BC895XLT we tested scans at 85 channels/second because it scans them in order of frequency.

The BC898T performs limit searches at a rate of about 240 steps/second when using 5 kHz steps. Searches with larger steps are slower.

Our BC898T is programmed with two banks of conventional frequencies, two other banks with Motorola Type II systems, and a bank with an EDACS system. The radio scans each bank smoothly, without significant hesitation when switching banks.

The tone display feature shows the subaudible code transmitted by a station





within about one second or less and identifies it as either CTCSS or DCS. That's much faster than older Uniden models and more flexible than the Radio Shack PRO-2067 and PRO-92. The Radio Shack models are quick, too, but those models force you choose either CTCSS or DCS before displaying the transmitted code.

The variety of widely spaced keys make the BC898T easier to operate and program than the smaller BC796D mobile and BC296D handheld (April 2004 *MT*). The last two models have fewer keys and employ a complicated system of nested menus requiring multiple keypresses.

The Uniden BC898T is in stock at Grove Enterprises for $202.95 plus shipping. Call 1-800-438-8155 or email order@grove-ent.com for ordering information.

Bottom Line

The BC898T works well and is a significant step up from the BC895XLT. If you don't require APCO 25 digital capability or text labels, the BC898T is a considerably better value than the BC796D for desktop use.

CSI Flex Series Multiprotocol Decoder

We reviewed the Connect Systems Inc. Flex Series Multiprotocol Decoder in July 2004. A photograph of the front panel was omitted from the column inadvertently and is reproduced here.

Measurements

Uniden BC898T Scanner
S/N 322Z44000006

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4700 Amon Carter Blvd.
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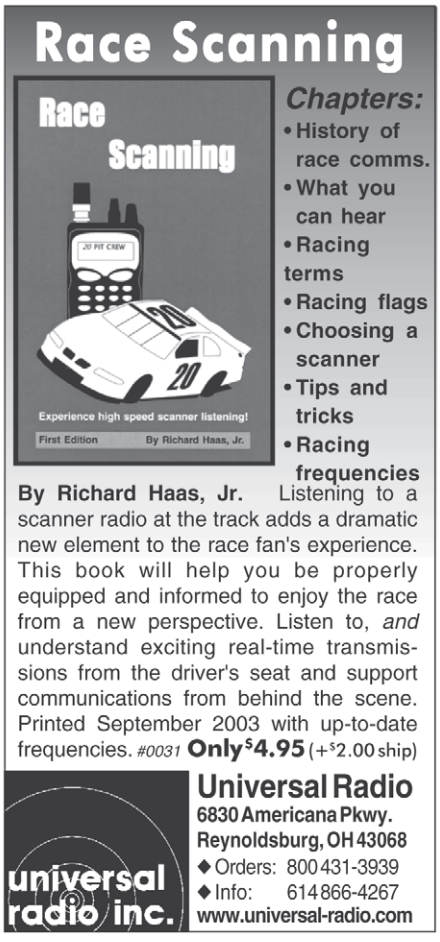
tel. (800) 554-3988
http://www.uniden.com

Frequency coverage (MHz):
25 - 53.995
108 - 174
216 - 512
806 - 823.9875
849.0125 - 868.9875
894.0125 - 956
Step sizes (kHz):
5, 6.25, 12.5, and 25,
user selectable
Modes: AM, FM, NFM, user selectable
NFM modulation acceptance: 11 kHz
Audio output power at external speaker jack (see text):
0.72 watts @ 2.6% distortion
Attenuator:
22 dB @ 40 MHz, 20 dB @ 155 MHz, 17 dB @ 460 MHz, 16 dB @ 860 MHz
IFs (approx., in MHz):
380, 45, 0.450
Squelch tail near threshhold (1 uV @ 155 MHz): 30 ms.
Practical memory scan
speed (approx.): 25 channels/sec
Search speed:
240 steps/sec (5 kHz step size)