

Introduction

This is intended to be a supplementary manual for the use of the Uniden BCD396XT and BCD996XT scanners that have been introduced. Since introduction, there has been a wide observance that there "is no paper manual included" and that the "Wiki just isn't the same". With this in mind, this document will try to help those making these observations.

First Step(s)

Go here and download the old manual(s) for your device:

for the BCD396XT (copy of the BCD396T manual)

<http://www.uniden.com/pdf/BCD396Tom.pdf>

for the BCD996XT (copy of the BCD996T manual)

<http://www.uniden.com/pdf/BCD996Tom.pdf>

Yes, these are the older manuals, BUT since the difference between the T and the XT models is more EVolutionary than REVolutionary, they should work to get you started and cover most of the topics. What this document will do is to add the differences here, in one place, for both 396 and 996 models since they have been "normalized" or made to work more or less the same.

Major Difference for BCD396XT

When the BCD396T was introduced, it did not have the capability of multi-site systems. This was rectified with the introduction of the BCD996T. When Uniden introduced the BCD396XT, this issue was addressed and multi-site systems are now available for the BCD396XT. Essentially this allows you to program multiple sites or towers for a single system - say a statewide system, or multi-jurisdictional systems. You now have a new menu option for site on the BCD396XT. If you need help with that, please see the site section of the BCD996T manual.

System/Channel Number Tagging

While scanning, there are times when you desire to go directly to a certain system or channel for instance if something is happening in the south part of town, or you just heard an interesting transmission on a channel and want to get back there. With Number tagging, you can do just that.

(stolen from the wiki http://info.uniden.com/twiki/bin/view/UnidenMan4/NumberTags#Programming_Number_Tags)

[Number Tags](#)

- Number Tags let you quickly navigate to a specific system or channel.

- You can assign Number Tags at the system level (*System Number Tag*, or *SNT*), at the channel level (*CHannel Number Tag*, or *CHNT*), or at both levels.
- You can assign an SNT to the temporary system *Close Call Hits* that is created during [Close Call](#) searches. This system and its SNT operate like any other system.
- You can assign Number Tags to service searches and custom search ranges. These search Number Tags operate like regular SNTs.
- When you are holding on a channel in Display Mode 1, the current system and channel number tags are shown in the top left corner of the display as "T SNT.CHNT". For example "T 2. 43" would indicate the current system uses System Number Tag 2 and the current channel uses Channel Number Tag 43.
- [Programming Number Tags](#)
 - [Assigning an SNT](#)
 - [Assigning a CHNT](#)
- [Using Number Tags](#)

Programming Number Tags

Assigning an SNT

- SNTs can range from 0 to 999 .
- Systems can have the same SNT, but you will get a warning when you create multiples. (This includes SNTs assigned to the Close Call Hits system or any search ranges.)

To a system :

1. Open the [Program System](#) menu.
2. Select the system you want to assign the number tag to.
3. Select [Edit Sys Option](#), then select [Set Number Tag](#).
4. Enter the number tag you want to use for this system.

To the Close Call Hits system :

1. Open the [Close Call](#) menu.
2. Select [Hits with Scan](#), then select [Set Number Tag](#).
3. Enter the number tag you want to use for the Close Call Hits system.

To a service search range :

1. Open the [Search for...](#) menu.
2. Select [Edit Service](#), then select the service search range you want to assign the number tag to.
3. Select [Search with Scan](#), then select [Set Number Tag](#).
4. Enter the number tag you want to use for this search range.

To a custom search range :

1. Open the [Search for...](#) menu.
2. Select [Edit Custom](#), then select the custom search range you want to assign the number tag to.
3. Select [Search with Scan](#), then select [Set Number Tag](#).
4. Enter the number tag you want to use for this custom search range.

Assigning a CHNT

- You can assign CHNTs to channels even if the system does not have an assigned SNT. However, without an SNT, you can only navigate to these channels from within that system itself.
 - CHNTs can be duplicated within their own system, but you will see a warning when you create multiples.
 - CHNTs can range from 0 to 999 .
1. Open the [Program System](#) menu.
 2. Select the system containing the channel you want to assign the number tag to.

3. Select [Edit Group](#), then select the channel group you want.
4. Select [Edit Channel](#), then select the channel you want to assign the number tag to.
5. Select [Set Number Tag](#).
6. Enter the number tag you want to use for this channel.

Using Number Tags

To navigate directly to:	Key Sequence	Example
A system or search range	<ol style="list-style-type: none"> 1. Tap HOLD. 2. Enter the SNT + ●. 3. Tap MENU. 	If the SNT is 4 , enter HOLD / 4 / ● / MENU .
A channel in the current system	<ol style="list-style-type: none"> 1. Tap HOLD. 2. Enter the CHNT. 3. Tap MENU. 	If the CHNT is 27, enter HOLD / 27 / MENU .
A channel in a different system	<ol style="list-style-type: none"> 1. Tap HOLD. 2. Enter the SNT followed by the decimal point. 3. Enter the CHNT. 4. Tap MENU. 	If the SNT is 4 and the CHNT is 27, enter HOLD / 4 / ● / 27 / MENU .

Notes:

- If two systems have the same SNT, they will be selected in sequence (i.e. the first time you select the SNT, the scanner will go to the first system assigned with that SNT; if you select the same SNT again, it will go to the 2nd system assigned with that SNT, and so on).
- If two channels in the same system have the same CHNT, they will be selected in sequence (i.e. the first time you select the CHNT, the scanner will go to the first channel in that system assigned with that CHNT; if you select the same CHNT again, it will go to the 2nd channel assigned with that CHNT, and so on).

NAC

Network Address Code (NAC) is another new feature of the scanners and was also available with some of the later firmware updates on the prior scanners. This is shown in Display Mode 1 so make sure that is set.

Control Channel Data Output

For some of the enthusiasts that are really involved in the lower level searching of systems, they have used a "discrimnator tap" modification to the devices for a number of years. This allowed much lower level information about the system to be gleaned. Some of this information is now available without having to make a hardware modification to the scanner.

Once turned on in the scanner via menu options, this sends information out the serial interface of the scanner. This can be viewed with a terminal type program (HyperTerminal or similar) as the device operates. To make the most of this feature, software is needed for your computer - Unitrunker is one program that is said to utilize this information but there could well be others by now.

Fire Tone Out

When some fire departments broadcast important events, they will send one or two tones at the beginning of the transmission to signify something important is coming. These are called Fire Tone Outs and you can program them into your new scanner. But how do you find out what the values should be for YOUR department? A good resource for this is Radio Reference (<http://www.radioreference.com>) but if your system is not listed there, then what? That's where this new feature comes in. You are able to find the tone outs for conventional systems using the Tone-Out Search capability.

Menu>Tone-Out for...>Tone-Out Setup (which means you will press your menu key, then scroll if needed to the item {Tone-Out for...} and select it by pressing your function key then scrolling if needed to the next item {Tone-Out Setup} and selecting it by pressing function). Here you will set up the conventional frequency that you are interested in finding the Tone-Outs for. As you can tell, I am assuming here that you have accomplished entering frequencies into your scanner, if not please check one of the above linked manuals for that needed information.

Once you have the frequency entered, you may then back up one menu level and choose Tone-Out Standby. From here, it is a waiting game to see what you find.

Band Scope

This is a new addition that will allow you to see the traffic on the different frequencies around a center frequency. These are described in the Wiki at:

BCD396XT - <http://info.uniden.com/twiki/bin/view/UnidenMan4/BandScopeMode>
BCD996XT - <http://info.uniden.com/twiki/bin/view/UnidenMan4/BCD996XTBandScopeMode>

The following is the BCD396XT entry at this time but seems to work on both the 396XT and 996XT.

Band Scope mode

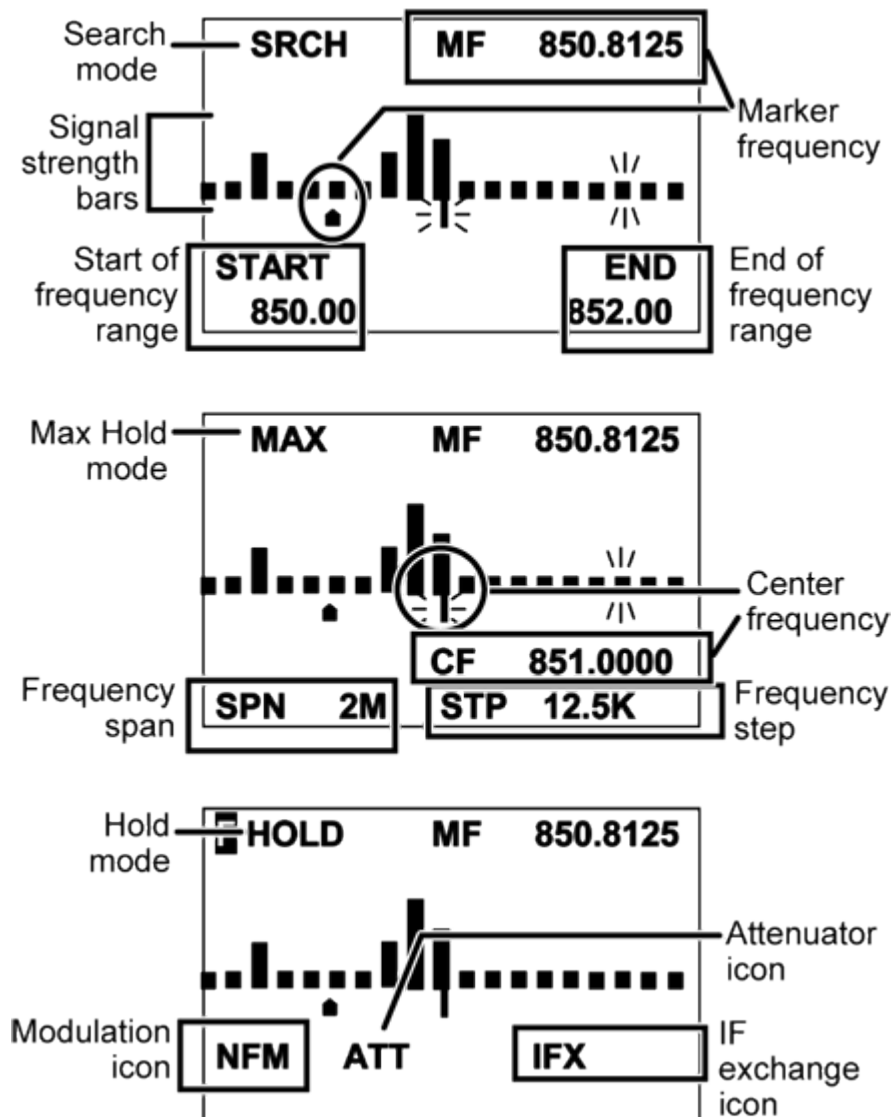
Band Scope mode is a special type of Search mode where the scanner displays the strength of any signal it finds.

- In a band scope search, the scanner starts at the lowest frequency in the range and moves up the search range.
- In *Max Hold* Search mode, the scanner displays the strongest signal that it found.
- If you manually set the mode to NFM or FM, the scanner will not reliably detect signals that are modulated in either FMB or WFM.
- [To turn on Band Scope mode:](#)
- [Reading the display in Band Scope mode](#)
- [Changing Band Scope Parameters](#)
 - [Key operation in Band Scope mode](#)

To turn on Band Scope mode:

Band Scope mode is the default setting for Search Key 3. To turn on Band Scope mode, enter Search mode, then tap **FUNCTION + 3 (SR3)**. (To change the Search Key assignment, see [Search Keys#Programming Search Keys.](#))

Reading the display in Band Scope mode



Changing Band Scope Parameters




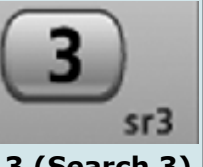
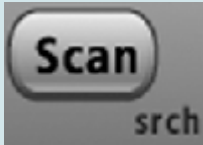


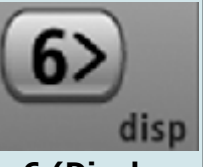
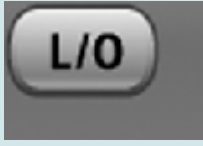

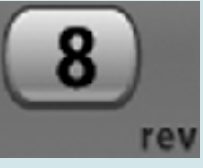
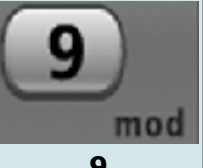
You can adjust the span, center frequency, and step size used in Band Scope mode. To make an adjustment, press **./no** one time. The setting being adjusted flashes. Repeatedly press **./no** until the setting you want to adjust is flashing.


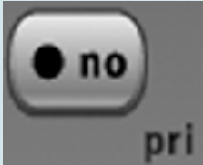

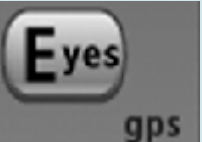
- **CF** -- Center Frequency. While **CF** is flashing, press **E/yes** then enter the desired center frequency.
- **SPN** -- Span. While **SPN** is flashing, rotate the scroll knob to select the desired frequency span. You can select from:
 - 0.2MHz, 0.4MHz, 0.6MHz, 0.8MHz, 1MHz, 2MHz, 4MHz, 6MHz, 8MHz, 10MHz, 20MHz, 40MHz, 60MHz, 80MHz, 100MHz, 120MHz, 140MHz,

160MHz, 180MHz, 200MHz, 250MHz, 300MHz, 350MHz, 400MHz, 450MHz, and 500MHz

- **STP** -- Step. While *STP* is flashing, rotate the scroll knob to select the desired frequency step. You can select from:
 - 5kHz, 6.25kHz, 7.5kHz, 8.33kHz, 10kHz, 12.5kHz, 15kHz, 20kHz, 25kHz, 50kHz, and 100kHz.

Key operation in Band Scope mode

Key Name (2nd operation)				
Action on:	Hold (Close call)	1 (Search 1)	2 (Search 2)	3 (Search 3)
Tap	Enter Hold mode.	NA	NA	NA
FUNCTION + Tap	Toggle Close Call modes.	Start the search assigned to this Search key.		
FUNCTION + Press & hold	Enter Close Call Only mode.	NA	NA	NA
Key Name (2nd operation)				
Action on:	Scan (Search)	4 (IF exchange)	5 (Volume offset)	6 (Display mode)
Tap	Enter Scan mode.	NA	NA	NA
FUNCTION + Tap	Change the band scope search type.	Switch the Intermediate Frequency used on this Frequency.	NA	NA
Key Name (2nd operation)				
Action on:	Lockout	7 (Attenuation)	8 (Reverse freq.)	9 (Modulation)
Tap	Press this key to close the setting screen and return to the Normal Screen.	NA	NA	NA
FUNCTION + Tap	Press this key to restart searching.	Toggle the attenuator state for the current signal.	NA	Change the modulation.
FUNCTION + Press & hold	NA	Toggle the attenuator state for all signals.	NA	NA

Key Name (2nd operation) Action on:	 Backlight (Power, Lock)	 No (Decimal, Priority)	 0 (Weather)	 Yes (Enter, GPS)
Tap	Turn on the LCD backlight.	Press this key to select the next setting item.	NA	NA
Press & hold	Turn the scanner on or off.	NA	NA	NA
FUNCTION + Tap	Lock or unlock the keypad.	NA	Change the Weather Alert Priority settings.	Enter GPS mode.
FUNCTION + Press & hold	NA	NA	Enter Weather mode.	NA

To exit this mode, just press SCAN and you will go back to your scan/searching that you were doing before.

Multi-Color Backlight Display

To access this Menu>Settings> Set Backlight> Set Color. At that point, you will see the current color selection. As you scroll through the listing, the backlight color changes to give you an idea of what your display will look like once that color is selected. Once you have your desired color, press your menu key enough times to get you back to where you were before starting.

Individual Channel Volume Offset

With these scanners, you can adjust the volume of the channels to somewhat compensate for variations in volume while scanning. Why somewhat? MOST of the time, a large discrepancy is due to incorrect mode settings (NFM when it's really FM, or sometimes auto when the default for that band is incorrect for your frequency). Then there are the various dispatchers, some speak softly while others speak in their "big outdoor voice". Of course, these are things that the volume offset is NOT for. If you have eliminated those and still need to compensate for a quiet channel, you do have that option.

This is set at the "channel" level (individual frequency for conventional or talk group for trunked systems) so you will need to access

```
menu> Program System> AlaskaLandMobile> Edit Group> Alaska ALMR> Edit Channel>
AST Fb Disp> Volume Offset (trunked system)
menu> Program System> TX DPS> Edit Group> TX DPS> Edit Channel> Repeater 10
A> Volume Offset (conventional system)
```

(please note that these are the supplied systems examples, change to suit YOUR needs)

Once we get to our destination, we have the options to adjust the volume offset from -2 to +2 with 0 being the center of course. As you would expect, a negative value will make the channel quieter while the positive values will increase the volume.

Ok, so you're reading about this and thinking "not much adjustment" - well, it really DOES come in handy and is quite a useful addition.

Intermediate Frequency Exchange

While scanning, if interference is encountered on a certain frequency, one of the things to try would be to attenuate the signal. This can quickly be accomplished while holding on that frequency by Function and then the 7 key. This is a toggle in that when you press it the first time, it will attenuate (turn attenuation on) the receiver, while the next selection of the function will turn the attenuation off.

If the attenuation doesn't make enough difference, you also have the Intermediate Frequency Exchange at your disposal. This will change the intermediate frequency within the scanner's receiver and can eliminate some forms of interference. Again this is a toggle that you can use while holding on the frequency by pressing the Function key and then the 4 key.

You'll notice that both these keys have a reminder abbreviated above each key, as do the other keys on the keypad.

Key Safe Mode

In this mode, you limit what can be done to/with the scanner by your "user". This would be nice in a setting where you need to configure several scanners for others to use. It could also be used when you allow others in your family to use your scanner and minimize the changes they can make.

To turn Key Safe mode on (or off)

- Turn the scanner off.
- Press and hold **FUNCTION** while you turn the scanner back on.
- The scanner display shows *Key Safe Mode On* (or *Key Safe Mode Off*), then returns to the operation it was performing when you turned it off.
- While Key Safe mode is on, **MENU** is disabled along with the key combinations described in the table below.
- When you try to use a disabled key combination, the scanner display shows *Key Safe Mode. Press FUNC while Power On for Full Operation*.

For examples of what the keys do in Key Safe Mode:

BCD396XT - <http://info.uniden.com/twiki/bin/view/UnidenMan4/KeySafeMode>

BCD996XT - <http://info.uniden.com/twiki/bin/view/UnidenMan4/BCD996XTKeySafeMode>

Be sure you notice that when someone presses an invalid keystroke, the DO get the information on the display on how to defeat Key Safe Mode, so it is not as secure as some would like.

Private Systems

Danger, Danger Will Robinson!!!

This is a feature that can only be accessed via programming software. It **DOES** work, much to the consternation of some users (already). What this does is to set the flagged system as a "private" system which means that it can NOT (read that again **NOT**) be changed. If your software allows it to be unflagged, you could be in luck, otherwise you will have to reset your device wiping out all the informaton in it and making it "showroom new". Do I need to repeat the "Danger Will Robinson" warning?

Priority ID Scan

Similar to priority feature on conventional frequencies, this feature allows you set a talk group as a priority ID so that when it becomes active, your scanner will switch to it.

```
menu> Program System> AlaskaLandMobile> Edit Group> Alaska ALMR> Edit Channel>
AST Fb Disp> Set Priority
```

Your options are on or off.

I will mention that recently I saw someone remarking about the limit of priority channels being somewhere around 1,000 so be aware of this and you might want to rethink how many "priority" channels you really need.

Preemptive Priority on Motorola systems

The best I can tell, this is not something YOU have control over. It seems on some Motorola systems, there is the option for the system manager to set a priority channel. If they have it set, your scanner should track it.

Negative Channel Dropout Delay

When setting your delay time via the

```
menu> Program System> AlaskaLandMobile> Edit Group> Alaska ALMR> Edit Sys
Option> Set Delay Time
```

you will see that you have negative options. These allow you to set it so that the scanner dwells on this system for no longer than the time you have selected. This will limit the amount of "hang" you have if you encounter a stuck transmitter or it can be used to limit the length of time spent on any system. So if you have a system that seems to move on before the transmission are ending, this would be a good thing to look at.

Channel Alerts

Wouldn't it be nice if your scanner would display red for a Fire call or blue for a Police call? Glad you asked! These new scanners now have that capability. In past, we were able to set alert tones for various, user defined alert instances (warble tone for weather updates on a mutual aid channel for instance). We now have the option to set a light color to be displayed as well as the alert tone. Want even more? How about the ability to make it solid, slow or fast flash? Yep, already in there.

menu> Program System> AlaskaLandMobile> Edit Group> Alaska ALMR> Edit Channel> AST Fb Disp> Set Alert> Set Alert Light> color> then pick if you want it on, slow blink or fast blink.

Once you come up with your own assignments, you'll be able to see the red from across the room and know it's a fire call. If it's flashing rapidly, it's the primary system you're interested in that's calling instead of one of the outlying Fire departments you're passingly interested in which will flash slowly or be on steady. Get creative as these only need to make sense to you.

Housekeeping

This document was neither condoned nor condemned by Uniden even though I did steal some of their text from the Wiki (my thanks to those involved!) but I did try to give credit where credit is due. And, if I missed some, you can probably spot it as being a much more professional approach to the information. This was done to help with the "we have no manual" cry that I have been hearing, but I know this will not suffice in and of itself to supplant the official documents. This was not the aim. What I attempted to accomplish here was to help document some of the new items and give some guidance to new folks to the Uniden DMA type scanners.

The big help that I finally found on addressing the DMA style scanners from Uniden was to "forget all that I knew about scanning from years past". Once I shook that, it was a pretty easy system to pick and makes a lot of sense how they approached the setup.

The one shortcoming that I am aware of at this point is on the Fire Tone Out description. I don't use this much and *think* I remember how I've used it in past but have not had any hits to confirm that I got it right, so be warned that this may be a "general idea" of how it works.

Thanks for reading, and I hope this helps in your learning and using your new scanner.