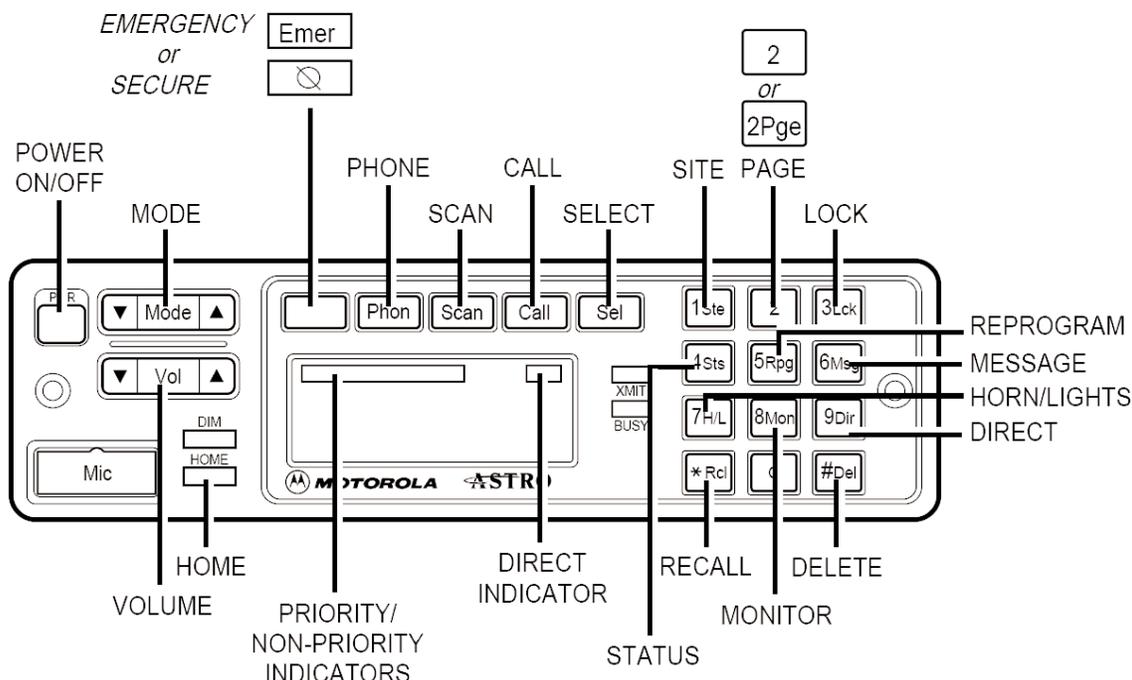


# PROGRAMMING THE MOTOROLA SPECTRA “SCAN” FUNCTION - BY GORDAN WALLICK



For those of you not familiar with the use of the scan function of your radio, it allows you to monitor other channels, selected and programmed by you, while monitoring whatever channel you have set your radio for, which for us in the motorcar hobby, is usually NARCOA 1. By the use of this function, you can scan for transmissions on other channels, typically the host railroad channel. You can listen in on host railroad chatter, as well as dialog between the railroad pilot and the EC of the excursion. When your radio detects a transmission on one of the channels you have programmed it to scan, it jumps to that channel so that you can monitor the transmission. When these “scanned” transmissions are complete, your radio jumps back to the channel which you had previously set it to monitor. As a point of information, you may transmit on any scanned channels as well, however it is NARCOA policy that no one transmit on any channel other than the designated NARCOA channel, *except* in an emergency.

1. The information below is specific to the Astro “W7” model (shown in the diagram), which is equipped with a Rocker Channel selector switch. This information should work with most, if not all, Motorola models. **READ THIS ENTIRE DOCUMENT** before

starting this procedure. It will make the process easier.

2. The “SCAN” button on your radio serves two functions:

The first function is to turn the Scan Function **ON** or **OFF**. The Scan Function can be turned On or Off by momentarily pushing the “Scan” button on your radio. When the Scan Function is “**ON**”, a small blue arrow (triangle) will be continuously lit in the display underneath the “Scan” button. When the Scan Function is “**OFF**”, this arrow will not be lit.

The second function of the **SCAN** button is to program the radio for the channels that you would like to have in the “Scan List” (16 Channels Maximum). To start the programming process, press and hold the “SCAN” button for more than one second, while watching the display. The blue arrow mentioned above will flash on and off and a single beep will be heard. Release the “SCAN” button. The radio display will display “Sel Mode”, which is “Motorola speak” for “Select a Channel”. The radio is now ready to add *or* delete a channel to *or* from the Scan List. Once the information in paragraphs 3, 4, & 5 below is understood, proceed to paragraph 6 to implement the process.



3. Some information about the display is appropriate at this time. Depending on how your radio has been programmed, it will display channel information in one of two ways. It will display either a six digit frequency, *or*, the AAR channel number *plus* a partial six digit frequency. For example, lets' say you wanted to select AAR channel 74, which has a frequency of 161.220. This will be displayed as either "161.220" *or* "74 1:220". In the second example, because of display space limitations, the first two digits of the six digit frequency, in this case "16", have been left out in order to allow space for the AAR channel number.

4. Also located in the display is a small "tool bar". It is located above the channel display and shows the following information: ^ PRI ^ N PRI ^ DIR ^ . The "^" is meant to represent the "arrows" mentioned in paragraph one, as this computer can't replicate the arrows. The display will be seen briefly, in its entirety, when the radio is first turned on. It is the "PRI" and "N PRI" portions of this tool bar that will be used in the "Scan List" add or delete channel process. Note: once modifications to the scan list have been "saved" into memory by pressing the "Home Button", they will remain in memory even though the SPECTRA is turned off or the power is removed

5. You will need to decide which one of the three possible "priority levels", listed below, you would wish to assign to the channel you are adding to the Scan List.

A. A "blinking" "PRI" is a "first priority" scan. Only one first priority scan is allowed in the program. If you already have the "first priority" assigned to another channel, that "first priority" designation must be removed from that channel *before* it can be assigned to another channel. Transmissions on the "first priority" designated channel will always be heard, no matter what other transmissions are being monitored. First priority transmissions will interrupt and override all other transmissions in process.

B. A "non-blinking" "PRI" is a "second priority" scan. As in the first priority, only one second priority scan is allowed in the program. Second priority trans-

missions will interrupt and override non-priority transmissions, but NOT first priority transmissions.

C. "N PRI" is a non-priority scan. Multiples of these may be programmed into the radio. These will always be interrupted and overridden by first and second priority transmissions.

D. No display, or the absence of A, B, or C above, is used to designate a channel that is not currently on the scan list.

6. Push the "Mode" (channel) selector switch to select the channel you wish to modify in the Scan List. While viewing the tool bar, push and release the "SEL" button to select the priority level for the channel displayed. Note: You may push and release the "SEL" button as many times as you wish, as this will just continuously rotate through the four possible choices (three priorities *or* cancel), and their related displays, as listed in paragraph 5 above. Once you have made your selection, push the "HOME" button. This completes the SCAN programming process and saves the information in a non-volatile memory. You may repeat this process to program additional channels.

Incidentally, the "HOME" button has an additional function. It is programmable (by a radio technician) to a previously determined frequency, for us in the motorcar hobby usually NARCOA 1. It allows for quick access to that channel without having to use the selector switch to get there.

7. To review the channels that are already programmed in the Scan List, press and hold the SCAN Button for more than one second, and until the single "beep" is heard, then release the button. While viewing the tool bar, push the "Mode" (channel) selector switch to scroll through all the channels in your radio. Channels that have been previously programmed for scan will display either a "blinking" "PRI" (first, or highest priority), a "steady" " PRI" (second priority), or "N PRI" (non-priority). While scrolling through the channels, if you come across a channel on which you wish to modify the priority, or remove from the scan list, use the "SEL" button as outlined in paragraph 6 to either modify the priority, or delete the channel. You may make as many changes as you wish to as many channels as you wish, just remember to push the "HOME" button to save the changes and exit the program when you are done.

Text written by Gordan Wallick

Press Sel	Mode	Indicator
One time	Non-Priority	NPRI lit
Two times	Second Priority	PRI lit
Three times	First Priority	PRI blinks
Four times	Delete from List	No indicator

