

SCAN

Scan is a useful feature for hands-off monitoring of your favorite frequencies. Becoming comfortable with all types of Scan will increase your operating efficiency.

This transceiver provides the following types of scans:

Scan Type	Scan Range
VFO Scan	Scans all frequencies on the current band.
Memory Scan	Scans all frequencies stored in the Memory channels.
Group Scan	Scans the frequencies in the Memory channels which belong to the group you have specified.
Program Scan	Scans all frequencies within the programmed range, on the current band.
MHz Scan	Scans all frequencies within a 1 MHz range from the originating frequency.
Call Scan	Scans the Call channel as well as the currently selected VFO frequency or Memory channel.

- Note:**
- ◆ Adjust the squelch level before using Scan. Selecting a squelch level too low could cause Scan to stop immediately.
 - ◆ While using CTCSS or DCS, Scan stops for any signal received; however, you will hear audio only when the signal contains the same CTCSS tone or DCS code that you selected.
 - ◆ When using S-meter Squelch, Scan stops when the received signal strength matches or exceeds the S-meter setting. Scan resumes 2 seconds after the signal level drops below the S-meter setting.
 - ◆ Pressing and holding [PTT] causes Scan to temporarily stop if it is functioning on a non TX band.
 - ◆ Starting Scan switches the Automatic Simplex Checker OFF.

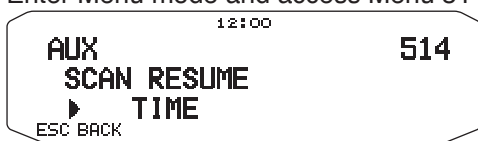
SELECTING A SCAN RESUME METHOD

The transceiver stops scanning at a frequency or Memory channel on which a signal is detected. It then continues scanning according to which resume mode you have selected. You can choose one of the following modes. The default is Time-operated mode.

- **Time-Operated mode**
The transceiver remains on a busy frequency or Memory channel for approximately 5 seconds, and then continues to scan even if the signal is still present.
- **Carrier-Operated mode**
The transceiver remains on a busy frequency or Memory channel until the signal drops out. There is a 2 second delay between signal drop-out and scan resumption.
- **Seek mode**
The transceiver remains on a busy frequency or Memory channel even after the signal drops out and does not automatically resume scanning.

Note: To temporarily stop scanning and monitor weak signals, press the microphone PF key assigned to the Monitor function. Press the PF key again to resume scanning.

- 1 Enter Menu mode and access Menu 514.

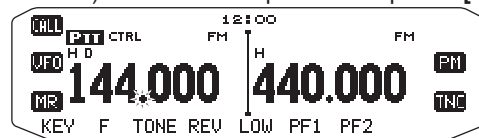


- 2 Set the Scan Resume mode to TIME (Time-Operated), CARRIER (Carrier-Operated) or SEEK.

VFO SCAN

VFO Scan monitors all frequencies tunable on the band, using the current frequency step size.

- 1 Select your desired band.
- 2 Press [VFO] (1s).
 - Scan starts at the current frequency.
 - The 1 MHz decimal blinks while scanning is in progress.
 - To reverse the scan direction, turn the **Tuning** control clockwise (upward scan) or counterclockwise (downward scan). You can also press microphone [UP]/ [DWN].



- 3 To quit VFO Scan, press [VFO] again.

MEMORY SCAN

Use Memory Scan to monitor all Memory channels programmed with frequency data.

- 1 Select your desired band.
- 2 Press **[MR]** (**1s**).
 - v Scan starts at the current frequency.
 - The 1 MHz decimal blinks while scanning is in progress.
 - To reverse the scan direction, turn the **Tuning** control clockwise (upward scan) or counterclockwise (downward scan). You can also press microphone **[UP]/ [DWN]**.
- 3 To quit Memory Scan, press **[MR]** again.

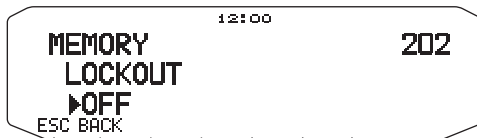
Note:

- ◆ At least 2 Memory channels must contain data and must not be locked out of scan.
- ◆ The L0/U0 to L9/U9 Memory channels will not be scanned.
- ◆ You can also start Memory Scan when in Channel Display mode. While Scan is paused on a channel, the channel number blinks.

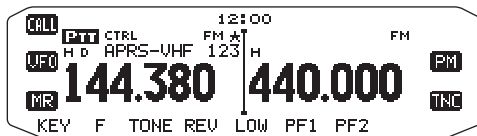
Locking Out a Memory Channel

You can select Memory channels that you prefer not to monitor while scanning.

- 1 Press **[MR]**, then rotate the **Tuning** control to select your desired channel.
- 2 Enter Menu mode and access Menu 202.



- 3 Set the lockout to ON to lock the channel out of the scanning sequence.
 - To cancel lockout, set the lockout to OFF.
 - The ***** icon appears on the display for a channel that has been locked out.



Note: The L0/U0 to L9/U9 Memory channels cannot be locked out.

GROUP SCAN

For the purpose of Group Scan, the 1000 Memory channels are divided into 10 groups, with each group containing 100 channels. Group Scan monitors only the 100 channels which belong to the specific group you are scanning. The channels are grouped as follows:

Memory Group	Channel Range	Memory Group	Channel Range
0	0 ~ 99	5	500 ~ 599
1	100 ~ 199	6	600 ~ 699
2	200 ~ 299	7	700 ~ 799
3	300 ~ 399	8	800 ~ 899
4	400 ~ 499	9	900 ~ 999

- 1 Press **[MR]**, then rotate the **Tuning** control to select a channel in your desired group.
- 2 Press the **Tuning** control (**1s**).
 - Scan starts at the current channel.
 - The 1 MHz decimal blinks while scanning is in progress.
 - To reverse the scan direction, turn the **Tuning** control clockwise (upward scan) or counterclockwise (downward scan). You can also press microphone **[UP]/ [DWN]**.
- 3 To quit Group Scan, press the **Tuning** control again.

Note:

- ◆ At least 2 Memory channels in the selected group must contain data and must not be locked out of scan.
- ◆ You can also start Memory Scan when in Channel Display mode. While Scan is paused on a channel, the channel number blinks.

Memory Group Link

Memory Group Link provides you with the ability to link 2 or more Memory channel groups together to act as a single group when scanning. You can link up to 10 separate groups together, or even add multiple instances of the same group to the group link, to ensure that one group is scanned more often than the other groups.

- 1 Enter Menu mode and access Menu 203.

- 2 Press the **Tuning** control.

- The cursor will begin blinking.



- 3 Rotate the **Tuning** control to select a group to link.

- 4 Press the **Tuning** control to set the group and move the cursor to the right.

- Press **[←]** to move the cursor back or **[→]** to move the cursor to the right.

- 5 Repeat steps 3 and 4 to link additional groups together.



- 6 When you have entered your desired groups, press **[→]** to move the cursor to the right, then press the **Tuning** control to complete the entry and exit Menu mode.

- You can insert one space by pressing **[SPACE]**.
- You can insert a character by pressing **[INS]**.
- You can delete the selected character by pressing **[CLR]**.
- If you have entered the maximum of 6 groups, simply press the **Tuning** control to complete the entry and exit Menu mode.

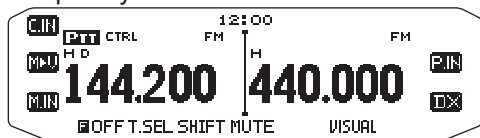
PROGRAM SCAN

Program Scan is identical to VFO Scan except that you select a frequency range for the scan.

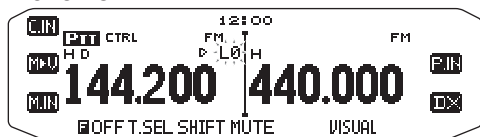
■ Setting Scan Limits

You can store up to 10 scan ranges in Memory channels L0/U0 to L9/U9.

- 1 Press **[VFO]**.
- 2 Select your desired band.
- 3 Rotate the **Tuning** control to select your desired frequency for the lower limit.



- 4 Press **[F]**.
 - A memory channel number appears and blinks.
- 5 Rotate the **Tuning** control to select a channel from L0 to L9.



- 6 Press **[M.IN]** to set the channel number.
 - The lower limit is stored in the channel.
- 7 Rotate the **Tuning** control to select your desired frequency for the lower limit.
- 8 Press **[F]**.
- 9 Rotate the **Tuning** control to select a matching channel number from U0 to U9.
 - For example, if you select channel L3 in step 5, select channel U3 here.
- 10 Press **[M.IN]** to set the channel number.
 - The upper limit is stored in the channel.
 - To confirm the stored scan limits, press **[MR]**, then select the L and U channels.

Note:

- ◆ The lower limit must be lower in frequency than the upper limit.
- ◆ The lower and upper frequency step sizes must be equal.
- ◆ The lower and upper limits must be selected on the same band.

■ Using Program Scan

- 1 Select your desired band.
- 2 Press **[VFO]**.
- 3 Rotate the **Tuning** control to select a frequency within your desired scan range.
- 4 Press **[VFO] (1s)**.
 - Scan starts at the current frequency.
 - The 1 MHz decimal blinks while scanning is in progress.
 - To reverse the scan direction, turn the **Tuning** control clockwise (upward scan) or counterclockwise (downward scan). You can also press microphone **[UP]/ [DWN]**.

- 5 To quit Program Scan, press **[VFO]** again.

Note:

- ◆ If the step size differs between the lower limit and upper limit, VFO scan will begin instead of Program Scan.
- ◆ If the current VFO frequency is within more than one Program Scan range, the range stored in the smallest channel number is used.

MHz SCAN

MHz Scan monitors a 1 MHz segment of the band, using the current frequency step size. The current 1 MHz digit determines the limits of the scan. For example, if the current frequency is 145.400 MHz, then the scan range would be from 145.000 MHz to 145.995 MHz (the exact upper limit depends on the current frequency step size).

- 1 Select your desired band.
- 2 Press **[VFO]**.
- 3 Rotate the **Tuning** control to select a frequency within your desired 1 MHz range.
- 4 Press and hold the **Tuning** control for 1 second to start scanning.
 - Scan starts at the current frequency.
 - The 1 MHz decimal blinks while scanning is in progress.
 - To reverse the scan direction, turn the **Tuning** control clockwise (upward scan) or counterclockwise (downward scan). You can also press microphone **[UP]/ [DWN]**.
- 5 To quit MHz Scan, press the **Tuning** control again.

CALL SCAN

Use Call Scan to monitor both the Call channel and either the currently selected VFO frequency or the currently selected Memory channel.

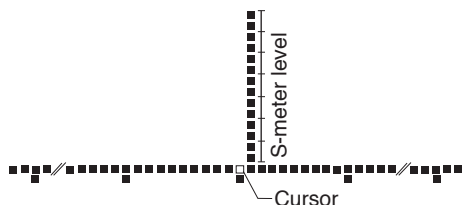
- 1 Select your desired VFO frequency or Memory channel.
- 2 Press **[CALL] (1s)** to start Call Scan.
 - The 1 MHz decimal blinks while scanning is in progress.
 - When scanning a Memory channel, the Call channel on the same band as the selected Memory channel is used for scan.
- 3 To quit Call Scan, press **[CALL]** again.

Note: The Memory channel selected is scanned even if it has been locked out of scan.

VISUAL SCAN

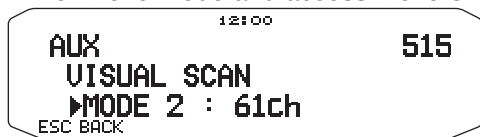
While you are receiving, Visual Scan allows you to monitor frequencies near the current operating frequency. Visual Scan graphically and simultaneously shows how all frequencies in the selected range are busy. You will see up to 21 segments, for each channel, that represent 7 S-meter levels (3 segments per level).

Determine the scan range by selecting the center frequency and the number of channels. The default number of channels is 61.



Selecting the Number of Channels

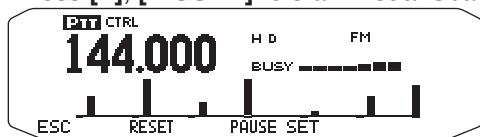
- 1 Enter Menu mode and access Menu 515.



- 2 Set the number of channels to MODE 1 (31ch), MODE 2 (61ch), MODE 3 (91ch), or MODE 4 (181ch).

Using Visual Scan

- 1 Select your desired band.
- 2 Rotate the **Tuning** control select the operating frequency.
 - This frequency will be used as the center frequency.
- 3 Press **[F]**, **[VISUAL]** to start Visual Scan.



- To halt Scan, press **[PAUSE]**. "PAUSE" appears and blinks. Press **[PAUSE]** again to resume.
- 4 To change the operating frequency, rotate the **Tuning** control.
 - The displayed frequency changes and the cursor moves.
 - Press **[SET]** to use the changed operating frequency as the center frequency.
 - Press **[RESET]** to restore the previous operating frequency.
 - 5 To exit Visual Scan, press **[ESC]**.

Note:

- ◆ You cannot use the Visual Scan Function under the following circumstances:
 - When the Built-in TNC is turned ON.
 - When only 1 channel has been stored in the memory channels.
 - When using Weather Alert (K models only).
- ◆ If you start Visual Scan in Memory Recall mode, the memory channel frequencies will be scanned.
- ◆ If you start Visual Scan after recalling the Call channel, the Call channel frequency will be used as the center frequency.
- ◆ If the frequency range specified for Program Scan or Program VFO is narrower than the range specified for Visual Scan, the range for Program Scan or VFO will be used for Visual Scan.
- ◆ Visual Scan stops while transmitting.
- ◆ If you start Visual Scan in one of the following conditions, you cannot receive in the current operating frequency. To use this frequency, press **[PAUSE]** to halt Scan.
 - Memory Recall or Call Channel mode.
 - A frequency in the 118, 220, 300, or 1200 MHz band was selected in VFO mode.
- ◆ Depending on the transceiver conditions, Visual Scan and the conventional S-meter may indicate different signal strength levels.