Channel Scan

Channel Scan mode allows you to monitor voice activity on a series of programmed channels called a “scan list. ” When the radio detects voice activity on any of the channels in your scan list, it stops scanning and allows you to listen.

NOTE:

The scan list may only be changed using the Radio Service Software (RSS). Contact your dealer for programming the list.

- **Priority Channel Scan**

Any channel on the scan list may be programmed to be the priority channel. When the scanner detects activity on the priority channel, it will automatically go to that channel (even if you are listening to another channel in the scan list) and the priority alert tone will sound.

- **Non-Priority Channel Scan**

No scan channel has priority over another when you use this feature. The scanner stops on the first channel with activity. When the activity stops, and a 3-second “hang-time” expires, the scanner proceeds to the next channel on the scan list.

- **PL/DPL Channel Scan**

Private-Line operation is offered with priority and non-priority channel scan. If PL/DPL signalling is active when you start scanning, the scanner will stop on the channels coded with the proper Private-Line™ (PL)/Digital Private-Line™ (DPL) tone.

NOTE:

If the monitor mode is not active when the scanning feature is initiated, the radio performs a Private-Line™ (PL) type of scan, if the monitor mode is active when the scanning feature is initiated, the radio performs a Carrier Squelch (CSQ) type of scan.

- **Scan Nuisance Channel Delete**

Scan Nuisance Channel Delete prevents the radio from scanning unwanted channels. You can temporarily delete channels from the scan list only while the radio is in channel scan mode.

Optional Features
(16-Channel Models Only) (cont'd)

To eliminate a channel:

Press and hold CONTROL BUTTON 1 or 2 (whichever one has been programmed for this feature) for two seconds while the scanner is stopped on an unwanted channel.

NOTES:

- If you exit the scan mode, or turn off the radio and re-enter the scan mode, the radio scans all channels, including the ones you previously deleted.
- You cannot delete a priority channel.
- You can only delete a channel while the radio is receiving a signal on that channel.

- **Active Channel Tone**



The Active Channel Tone feature enables you to find the last active channel received during scan mode. A beep is emitted when the channel selector knob is rotated to the last channel received during scan.

- **Talkback Scan**

This feature allows you to transmit on the active scan channel during a "hang time" of approximately three seconds. Before scanning resumes, this programmable hang time gives you an opportunity to receive or respond to a call. Press the PTT to transmit on the present channel before the radio resumes scanning.

- **Home Revert Scan**

If you press the PTT with this feature activated, and while the radio is scanning, the radio will transmit on the home channel. The Radio Service Software (RSS) is used to select both home revert scan and the channel to be designated as the "home" channel.

NOTE:

The radio transmits on the active channel if both Home Revert and Talkback Scan are selected. If, however, there are no active channels, the radio transmits on the home channel.

Scan and Signalling Alert Tones

Transmit on Radios with PTT ID

When the PTT button is depressed, a sidetone is heard as the unit ID is being transmitted. Start your voice message in the standard manner when the tone ends.

Selective Call

A two beep alert tone is generated whenever a Selective Call is received, the radio unsquelches and the caller's message is heard.

Call Alert

A four beep alert tone is generated whenever a Call Alert (page) is received. The alert tone repeats until the PTT or the button for "monitor" is pressed.

Scan Activate

When you select a preprogrammed rotary scan channel location, a one beep high-pitched alert tone is heard whenever scan is initiated.

Priority Alert Tone

A one beep alert tone is heard if the radio is scanning and a conversation is initiated on the priority scan channel.

Scan Talkback Tone

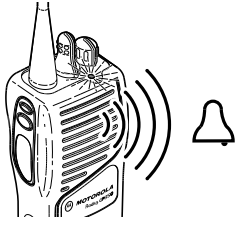
A medium-pitched, one-beep alert tone is sounded when you rotate the channel selector knob out of the scan position after

- the radio has locked on a channel, and
- the radio reached the last active channel in the channel scan list.

Receiving a Selective Call

If your radio is equipped with the Selective Call option, you can receive a Selective Call from a base station. For more information about the availability of this feature, contact your dealer.

When receiving a Selective Call:



The LED flashes yellow.

Listen for voice page.

PTT ID

When your radio is set to a channel with the PTT ID feature, an identification code (Unit ID) is transmitted to the base station, indicating which portable is operating.

1 Press the PTT.

Listen for the sidetone as the ID is transmitted.

2 Start your message in the usual manner when the tone ends.

LED glows red during PTT ID transmission.

Call Alert (Decode)

Call Alert works similarly to tone-only pagers.

When a Call Alert (page) is received:

You hear a series of four beep decode tones while the LED flashes yellow.

The Call Alert tone is disabled in progress if:

- You push the PTT, **or**
- You change channels.

IMPORTANT:

If you change the channel while a Selective Call signal is in progress, the radio's yellow LED stops flashing and the Selective Call is lost.

NOTE:

The Selective Call does not require any action to acknowledge the call, and the radio returns to normal operation after the call is complete.

Placing a Telephone Call

Placing a telephone call from a conventional radio will allow for half-duplex operation. This means that you will have to speak first, listen to the response of your receiver, and then speak again.

If your radio is equipped with a keypad, you can use access and deaccess codes to dial into a telephone line (access) and return to conventional radio operation (deaccess). You can manually dial these codes, or your dealer can preprogram them.



To place a call using manual access/ deaccess codes:

1. Press and hold PTT, and dial the access code.
2. Release PTT and listen for dial tone.
3. Press and hold PTT, or the PHN button, and dial the telephone number.
4. Conduct conversation with other party. Press PTT to talk; release PTT to listen.
5. When finished talking, press and hold PTT, and dial deaccess code.

DTMF Preprogrammed Access/Deaccess Codes

1. Press the PHN button to activate the numeric keypad for a DTMF transmission.
2. Press the MEM button, then select the [*] button for the preprogrammed access code. The radio automatically keys and sends the desired string of digits.
3. After the string is transmitted, other digits may be sent by pressing the desired DTMF numeric buttons.
4. Press the [#] button for the preprogrammed deaccess code if you wish to return to conventional radio operation.

Optional Features
(16-Channel Models Only) (cont'd)

DTMF Preprogrammed Repertoire List

1. Press the PHN button to activate the numeric keypad for a DTMF transmission.
2. Press the MEM button, then select a digit 1 - 9. The radio automatically keys and sends the desired string of digits.
3. After the string is transmitted, other digits may be sent by pressing the desired DTMF numeric buttons.

DTMF Last Number Redial

Manually dialed DTMF numeric digits are collected while the DTMF keypad function is active. To access this stored string of digits:

1. Press the PHN button to activate the numeric keypad for a DTMF transmission.
2. Press the MEM button, then select "0" numeric digit. The 0 number location is used for storage of the last number redial function. The radio automatically keys and sends out the stored DTMF digits. This set of numbers is saved in memory until the radio is turned off or until another DTMF digit is dialed.

Dealer Programmed Control Buttons

Two control buttons, P1 and P2, located on the DTMF keypad model of the GP350, can be programmed through the Radio Service Software. These control buttons function similarly to the buttons on the side of the radio. Contact your dealer to have these two control buttons programmed to fit your needs.

Antennas:

NAD6502 VHF Heliflex Antenna, 146-174 MHz (standard antenna)
NAD9742 VHF Stubby Antenna, 146-162 MHz
NAD9743 VHF Stubby Antenna, 162-174 MHz
NAE6483 UHF Whip Antenna, 403-520 MHz (standard antenna)
NAE6522 UHF Stubby Antenna, 438-470 MHz

Audio Accessories:

HMN9046 Light Weight Headset with Swivel Boom Mic
HMN9049 Medium Weight Single Speaker Headset with Swivel Boom Mic
HMN9121 Over the Head Medium Weight Dual Muff Headset with Noise Cancelling Boom Mic
HMN9122 Under the Helmet Medium Weight Dual Muff Headset with Noise Cancelling Boom Mic
HMN9041 Remote Speaker Mic
HMN9048 Ear Mic with PTT Interface
HMN9047 Ear Mic with VOX Interface
HMN9120 Flexible Ear Receiver
HMN9043 1-Wire Surveillance Earpieces with Volume Control
HMN9042 1-Wire Surveillance Earpieces without Volume Control
HMN9044 2-Wire Surveillance Earpiece
HMN9050 Heavy Duty Headset with Noise-Cancelling Boom Mic

Batteries:

HMN9360 High Capacity Battery
HMN9361 High Capacity Factory Mutual (FM) Battery

Carrying Cases & Accessories:

HLN9417 Leather Carry Case with Belt Loop
HLN9418 DTMF Leather Carry Case with Swivel
HLN9420 DTMF Leather Carry Case with Belt Loop
HLN9323 Leather Carry Case with Swivel
HLN9416 Nylon Carry Case
HLN8414 Chestpak Carry Holder
HLN9035 2 1/2” Swivel Belt Loop
HLN9724 2 1/2” Belt Clip
HLN8255 Spring Action Belt Clip 3”
NTN5243 Shoulder Strap
HLN9985 Waterproof Bag
HLN9149 Swivel Beltloop Adapter

Chargers & Accessories:

HTN9630 120V - 1 Hour Rapid Desktop Battery Charger
HTN9702 120V - 10 Hour Overnight Desktop Battery Charger
HTN9748 120V - 6 Unit Charger
HTN9802 220V - 1 Hour Rapid Desktop Battery Charger with Euro Plug
HTN9804 220V - 10 Hour Overnight Desktop Battery Charger with Euro Plug
HTN9811 220V - 6 Unit Charger
HTN9803 240V - 1 Hour Rapid Desktop Battery Charger with U. K. Plug
HTN9805 240V - 10 Hour Overnight Desktop Battery Charger with U. K. Plug
HTN9812 240V - 6 Unit Charger with U. K. Plug

Miscellaneous Accessories:

HLN9452 Vehicular Battery Eliminator
HLN9482 GP300 to GP350 Audio Accessory Adapter (Allows GP300 accessories to be connected to GP350 radios.)

Troubleshooting

Symptom	Problem	Solution
1. Radio is dead.	1a. Battery may not be properly charged. 1b. Battery may not be positioned correctly in the radio.	1a. Press and hold push-to-talk (PTT) button while looking at the LED. If the LED does not light or turns off while you are still holding the PTT, you should charge the battery. 1b. Refer to page 8 for battery installation instructions.

Symptom	Problem	Solution
2. Battery does not charge or last long enough.	2a. Battery may be incorrectly charged. 2b. Battery may not be fully charged. 2c. Standard battery life of 8 hours is based on a duty cycle where the radio is transmitting 5%, receiving 5%, and in standby mode 90% of the time. Usage different than this duty cycle will result in a different battery life. 2d. Battery or charger contacts may be dirty.	2a. If you use a desktop charger, make sure the battery is positioned properly in the charger base. Refer to page 9 in this user guide. 2b. Turn radio off while charging battery. Charging time will be doubled if the radio is on while charging. 2c. If you use your radio for a longer period of time than the standard duty cycle, you may need to recharge your battery during that time. 2d. Clean battery and charger contacts often.
3. Radio will not talk to other radios in system.	3a. Radios may be on different frequencies, PL, or DPL codes.	3a. Check with your dealer to verify frequencies, PL, and DPL codes.

Symptom	Problem	Solution
4. Hearing other conversations or noise on your radio.	4a. Users do not have exclusive use of frequencies. Frequencies must be shared using proper radio etiquette.	4a. Coded squelch screens out other users' conversations on your radio, but other users who share your frequency still hear your conversations. Coded squelch is also called: Private-Line (PL), Quiet Call, Channel Guard, CTCSS, etc.

Symptom	Problem	Solution
5. Limited talk range.	5a. Using your radio in basements, steel structures, concrete buildings, automobiles, or heavy foliage decreases its range. 5b. Operating the radio while it is close to your body (i.e. in a pocket or on a belt) and while you are using audio accessories decreases its range because of the shielding effect of your body.	5a. These are standard characteristics of transmitters. For best talk range, always use the longer antenna. Stubby antennas reduce talk range by 50%. External magnetic mount antennas are recommended for best range when communicating in an automobile. 5b. The higher the radio is held, the better the talk range. Use of audio accessories is only recommended in close range situations.

Troubleshooting (cont'd)

Symptom	Problem	Solution
6. You hear constant static from speaker.	6a. The battery may be discharged. 6b. When using your radio around computers or electronic equipment, you may hear static or interference from these devices.	6a. Press and hold PTT while looking at the LED. If the LED does not light or turns off while still holding the PTT, the battery should be charged. 6b. Ask your dealer to enable coded squelch (PL). Coded squelch screens out this type of interference. Coded squelch may also be referred to as: Private-Line (PL), Quiet Call, Channel Guard, CTCSS, etc.
7. You hear a low-pitched beep when you turn on the radio.	7. The radio needs to be repaired.	Contact your dealer for further information.
8. You have tried a solution for any of the above symptoms, without success.	8. The radio may need to be repaired.	8. If the unit is still under warranty, return it to the place of purchase for repairs, or contact your dealer.

Licensing

Your Radius radio operates on FM radio communication frequencies and is subject to the **rules and regulations of the local communications governing agencies**. These agencies may require that all operators using private land mobile or general mobile radio frequencies obtain a radio license before operating their equipment. The operator receives a license for use of the radio equipment under a specific eligibility and on a particular frequency or set of frequencies. To determine eligibility for use of private land mobile service frequencies, contact your local communications governing agency. This agency can supply information required to properly obtain and complete the license application form.

The following is a list of communications agencies in various countries:

United States
Federal Communications Commission
Equipment Approval Services
P.O. Box 358315
Pittsburgh, PA 15251-5315
Tel: (301) 725-1585

Canada
Contact your dealer for the regional licensing office nearest you.

Mexico
Secretaria De Comunicaciones Y Transportes
Direccion General de Politicas
Y Normas de Comunicaciones
Av. Eugenia No.197 -5o. Piso
Mexico, D.F. 06700

If your country is not mentioned in this list, contact your dealer for licensing information.

Service

Because this unit contains a radio transmitter, most local governments prohibit anyone from making internal adjustments to the transmitter unless specifically licensed to do so by government regulations. If your radio fails to operate or any operational difficulties arise, contact your dealer.

Proper repair and maintenance procedures assure efficient operation and long life for this radio.

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Mt. Pleasant, IA 52641
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Turn On

Rotate Volume On/Off button clockwise.



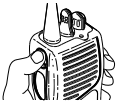
Turn Off

Rotate Volume On/Off button counter-clockwise.

Volume Set

Control Button 1: Default = Volume Set

1 Press and hold CONTROL button until you hear a rushing noise.



2 Continue to hold CONTROL button and rotate on/off knob to desired volume level.

Select Channel

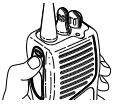
Rotate channel selector.



Monitor Channel

Control Button 2: Default = Monitor

Press and release CONTROL button.



Transmit

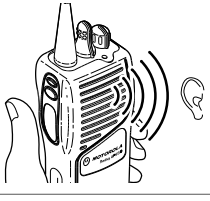
1 Press PTT.

2 Hold radio upright while speaking clearly into mic.



Receive

Release PTT to hear voice activity.



LED Signal	Meaning
flashes red	• channel is busy • pressing PTT if battery is low
glows solid red	• transmitting • during PTT ID transmission
glows yellow for 4seconds	successfully entering monitor mode
flashes yellow	receiving Selective Call or Call Alert
flickers green	radio in channel scan mode

Sound	Meaning
short, high-pitched beep	• radio being turned on • effecting volume set
alert tone	press PTT on busy channel lockout
one beep alert tone	• scan initiated on prepro-grammed scan channel location • conversation initiated on priority scan channel while scanning
high-pitched tone	• entering channel scan mode
scan talkback tone	you rotated channel selector out of scan position after radio locked on a channel and after radio reached last active channel in scan list
sidetone	pressing PTT when sending unit ID
two beep alert tone	receiving Selective Call
four beep alert tone	Call Alert (page) is received