
FEATURES

- Programmable group/channel selector
- Programmable top switches
- Programmable keypad menu
- DTMF
- ANI
- Time-out timer
- Group scan
- Scan delay
- Talkback scan
- Nuisance channel delete
- Dual-priority scan with Code Guard
- Alphanumeric display
- Up to 240 channels available in 15 groups of 16 channels
- 2.5 kHz interstitial channel spacing
- Enhanced user Code Guard that accesses all 16 guards
- Group scan with group lockout
- Clonable alphanumeric display data
- Clonable low-power select per channel

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INTRODUCTION

CONGRATULATIONS, you now own a BK Radio GPH Flex•Mode™ radio. This synthesized portable radio uses a microprocessor core allowing features and performance previously unavailable in a hand-held two-way radio. The GPH radio has been designed to meet the tough requirements of today's communications environment. Please take a moment to read the information in this manual so you can get optimum performance from your new radio.

FCC REQUIREMENTS

Your radio must be properly licensed by the Federal Communications Commission prior to use. Your BK Radio dealer can assist you in meeting these requirements. Your dealer will program each radio with your authorized frequencies, signaling codes, etc., and will be there to meet your communications needs as your system expands.

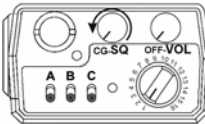
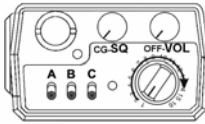
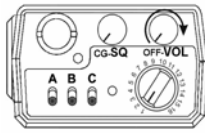
SAFETY PRECAUTIONS



- Do not operate the transmitter in close proximity to blasting caps.
- Do not operate the radio in an explosive atmosphere (petroleum fuels, solvents, dust, etc.) unless your radio is an intrinsically safe model designed for such use.

BASIC OPERATION

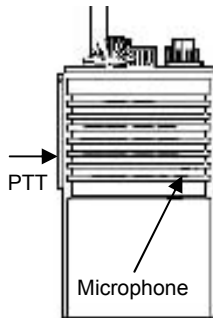
RECEIVE



1. **TURN POWER ON** by turning the volume knob clockwise. A beep sounds, indicating the radio is operational. The LCD display, if installed, shows the current channel.
2. **SELECT A CHANNEL** by turning the channel selector knob.
3. **ADJUST SQUELCH AND VOLUME** by turning the squelch knob clockwise until you hear noise. Set the volume to a comfortable level. Then turn the squelch knob counterclockwise until the noise stops. This is called the threshold squelch setting.

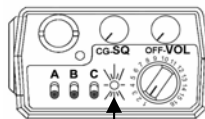
Turning the squelch knob fully counterclockwise past the detent places the receiver in Code Guard mode. A message will be heard only when the proper Code Guard value is received.

TRANSMIT



1. **PRESS THE PTT** (Push To Talk) switch. When the transmitter is on, the red transmit indicator glows and **TX** appears in the display.
2. **TALK IN A NORMAL VOICE** with the microphone 1–2 inches from your mouth.
3. **RELEASE THE PTT** switch to stop transmitting.

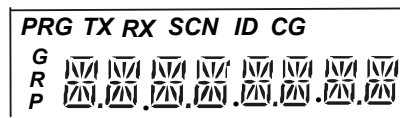
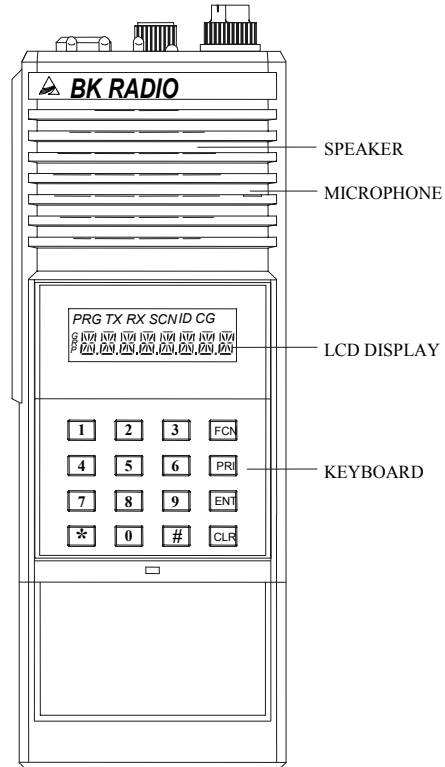
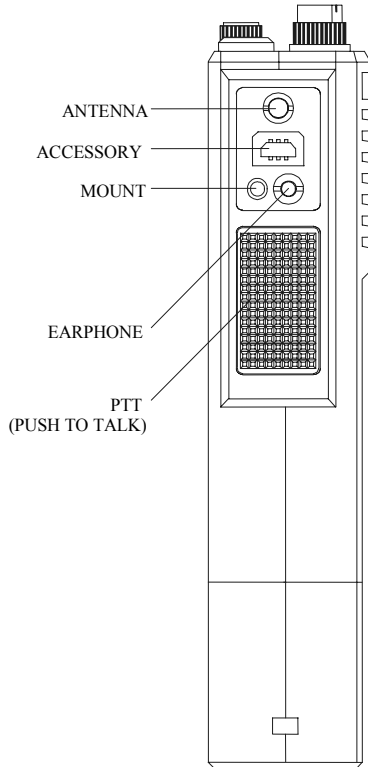
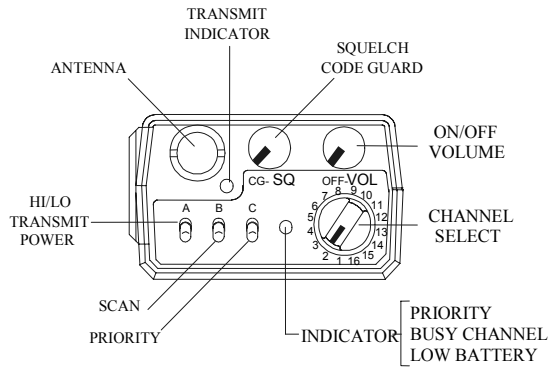
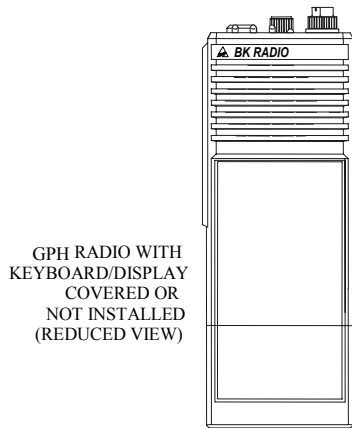
If the transmit indicator does not glow when you press the PTT switch, the battery pack may need to be charged. If so, the display will indicate **LOBAT**, and the yellow low-battery indicator will flash. If the transmit indicator does not glow and a tone sounds, you are on a receive-only channel or the channel is busy (if busy channel lockout is enabled). Select an authorized transmit channel.



BUSY CHANNEL INDICATOR

If the length of your message exceeds the preset time-out timer setting, the transmitter automatically shuts off and a tone sounds. To continue transmission, release the PTT switch, and then press it again and continue talking.

RADIO CONTROLS

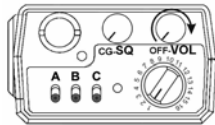


ALPHANUMERIC DISPLAY

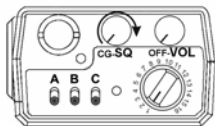
CODE GUARD OPERATION

Code Guard™ allows one radio or group of radios to be selectively called within a system. If the radio has been programmed with Code Guard, use the following receive and transmit instructions.

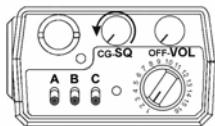
CODE GUARD RECEIVE



1. **TURN POWER ON** by turning the volume knob clockwise.



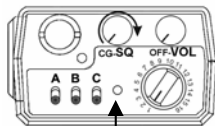
2. **SELECT A CODE GUARD CHANNEL** by turning the channel selector knob.



3. **ADJUST VOLUME** by turning the squelch knob clockwise until a rushing noise is heard. Then turn the volume knob to a comfortable level.

4. **SET CODE GUARD MODE** by turning the squelch knob off (counterclockwise) into the Code Guard Position. A message will be heard only when the proper Code Guard value is received.

CODE GUARD TRANSMIT



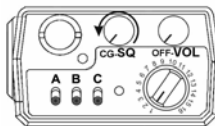
BUSY CHANNEL
INDICATOR

1. **TURN THE SQUELCH KNOB ON** (clockwise).

2. **MONITOR THE CODE GUARD CHANNEL** before transmitting.

NOTE: Do not transmit if the channel is busy (the busy channel indicator is lit).

3. **PRESS THE PTT** (Push To Talk) switch. When the transmitter is on, the red transmit indicator glows and **TX** appears in the display.



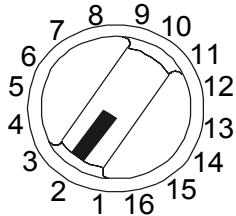
4. **RESET THE SQUELCH KNOB** to the Code Guard position to receive only the messages with the proper Code Guard value. During extended transmissions, the squelch can be left open until the exchange has ended.

Code Guard is a trademark of BK Radio

BUILT-IN FEATURES

The BK Radio G Series is based on a microprocessor core that allows extra features and operational characteristics to be programmed into the radio. Your dealer can help define the best operational settings for your system and program them into the radio.

PROGRAMMABLE GROUP/CHANNEL SELECTOR



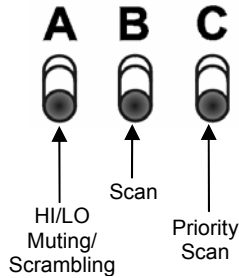
The group/channel selector knob can be customized by your dealer to select your preferred group/channel combinations. The following three options are available:

- **CHANNEL SELECTOR.** Each switch position selects a different channel in the same group. The group is selected with the keypad.
- **GROUP SELECTOR.** Each switch position selects the same channel in a different group. The channel is selected with the keypad. Changing switch positions would select a different set of “group parameters,” such as Code Guards, User-Selected Code Guard, Scan List ANI, and Priority Channels.
- **CUSTOM SELECTOR.** The switch can be programmed to select up to 16 of your favorite group/channel combinations.

Each switch position can be programmed to allow selection of the group and/or channel with the keypad or stay locked to its pre-programmed group/channel.

Your dealer can help define the best configuration for your system.

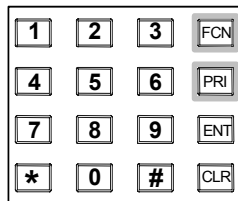
PROGRAMMABLE TOP SWITCHES



The three top switches can be programmed by your dealer for channel scan, dual priority scan, group scan, low-power select, and RTA (Repeater Talk Around). Your dealer can also assign two functions to the same switch. For example, both low-power select and RTA could be enabled by the same switch.

NOTE: Assume for this User's Manual that Switch A has been programmed for HI/LO transmit power and muting/scrambling, Switch B has been programmed for Scan, and Switch C has been programmed for Priority Scan.

PROGRAMMABLE KEYPAD MENU

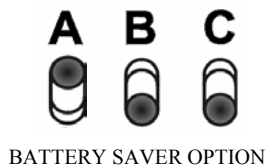


Any functions not assigned to a top switch can be enabled/disabled with the keypad.

1. **PRESS THE FCN KEY** to display the function menu.
2. **REPEATEDLY PRESS FCN** to step through the menu.
3. **PRESS PRI TO TOGGLE** the function on/off when the desired menu item is displayed.

When the display flashes, the function is enabled.

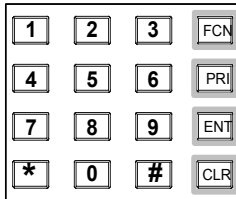
HI/LO TRANSMIT POWER



Each channel in the radio can be individually programmed to always transmit in low-power mode, regardless of the position of the radio's top switch (or keypad menu setting). If the programming for the channel allows high-power transmissions, the power level can be selected with a top switch or the keypad menu.

DTMF ENCODING

Keypad-equipped radios can be programmed to enable DTMF (Dual Tone Multiple Frequency) encoding. To send DTMF tones (similar to the tones used by a standard push-button telephone):

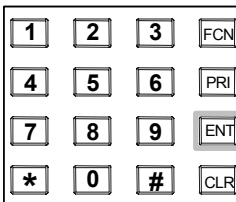


1. **PRESS AND HOLD** the PTT switch.
2. **PRESS ANY OF THE KEYS** on the keypad.

You will hear a sidetone.

The **FCN**, **PRI**, **ENT**, and **CLR** keys respond as DTMF tones A, B, C, and D, respectively.

ANI ENCODING



ANI encoding (Automatic Number Identification), if enabled, transmits a sequence of DTMF tones each time you press the PTT switch. You will hear a sidetone. Your dealer can program the ANI number to be sent.

If DTMF and ANI are both enabled, the ANI tone sequence is transmitted only after the **ENT** key is pressed while the PTT switch is activated. You will hear a sidetone.

TIME-OUT TIMER

The transmit time-out timer limits the duration of calls and guards against accidentally locking on the transmitter and tying up the radio system. Your dealer can program the duration of the time-out timer (15–225 seconds, or disabled).

NUISANCE CHANNEL DELETE



If nuisance channel delete is enabled in your radio, and the scan function is assigned to a top switch (Switch B, for example), you can delete a nuisance channel. To temporarily lockout an active nuisance channel, slide Switch B (scan) down momentarily and then back up.

GROUP SCAN

Channels on each “channel scan list” and groups on the “group scan list” are scanned sequentially. The knob-selected group is always scanned when group scan is enabled, even if that group is not on the group scan list.

When group scan is enabled, the following features are disabled:

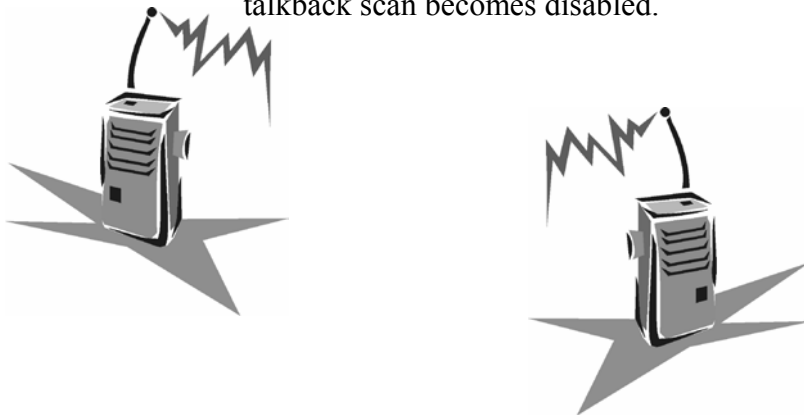
- Dual Priority Scan
- User-Selected Code Guard
- Nuisance Channel Delete

SCAN DELAY

Scan delay lets the radio receive a response to a transmission before scanning the other channels for activity. If you find that your scanner is restarting before message replies are received, you can ask your dealer to increase the scan delay time (0–7.5 seconds).

TALKBACK SCAN

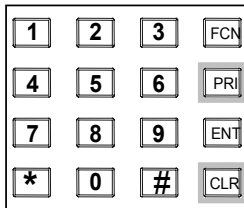
Your dealer can program your radio for talkback scan. When enabled, if scan hold time remains after you receive a call, transmission occurs on the transmit frequency (or talk-around frequency) of the received channel. However, if dual priority scan is active with the transmit-on-priority feature enabled, talkback scan becomes disabled.



DUAL PRIORITY SCAN

Up to 2 of the 16 channels in each group can be designated as priority channels. These two channels, PR1 and PR2, are checked at a preset rate (.25–2.0 seconds) for activity, even if you are listening to a different transmission. Activity on PR1 will preempt PR2. Activity on PR2 will preempt any of the non-priority channels.

Your dealer can assign dual priority scan to one of the top switches, to the FCN menu, always turned on, or always turned off. Your dealer can also assign priority channels for you. When you operate your radio, you will be prompted for priority channel assignments.



1. **PRESS PRI REPEATEDLY** to cycle through the choices of Off, Main, and numbers 1–16.
2. **PRESS CLR** to turn the channel off.

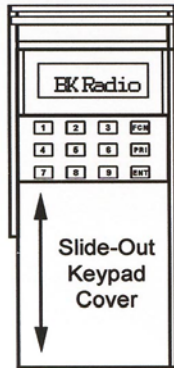
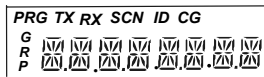
If a carrier is detected, you will hear the message unless the proper Code Guard is missing. If a carrier is present but the correct Code Guard is not found, the radio will only monitor the priority channel every 4 seconds.

If a frequency is found on both PR1 and PR2 but the frequency has an improper Code Guard, the radio will perform a priority test each 4 seconds. Because the priority test alternates between PR1 and PR2, the “hole” in the audio occurs every 2 seconds, half the original time.

If PR1 is a fixed channel and the **PRI** key is not locked out, you can move the channel selector to a new channel and press the **PRI** key to choose a new PR1 channel.

Dual priority scan is automatically disabled when group scan is on.

ALPHANUMERIC DISPLAY



The G Series portable radios are built with one of the following display options:

- No keypad and no display or
- Keypad and alphanumeric display

With obvious exceptions, the operational procedures are the same for both these radios.

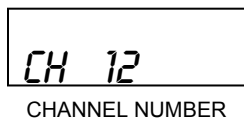
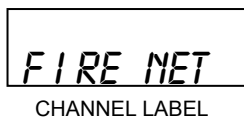
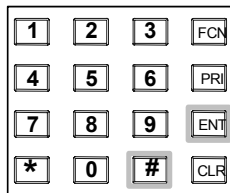
Radios with a keypad and display have a slide-out keypad cover. To remove or install the cover, turn off the radio and remove the battery (see Battery Installation and Removal, page 28).

Radios with alphanumeric displays can be programmed to operate one or more channel groups.

DISPLAY BACKLIGHTING

The GPH radios can be programmed by your dealer to backlight the display when a signal is received or when a key is pressed. The time duration of the backlighting can also be programmed.

CHANNEL LABELS



You can program the radio with a label for each of the 15 channel groups and a label for each of the 16 channels within each group.

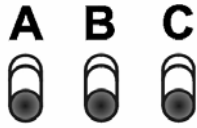
To display the channel number associated with a channel label:

1. **PRESS THE # KEY** to display the group number.
2. **PRESS THE # KEY AGAIN** to display the channel number.
3. **PRESS AND HOLD THE # KEY** to display the channel label.
4. **PRESS ENT.**

Each label can include up to eight characters, with decimal points available between characters.

Characters can include *A-Z, 0-9, -, *, \$, /, +, %, \, |, _, <, >, h*, or a blank space.

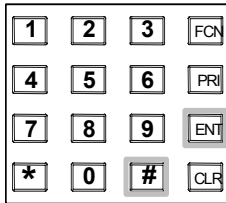
GROUP LABELS



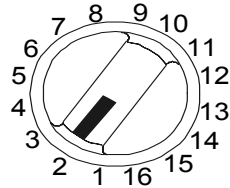
The display can show group labels in addition to group numbers.

To display a group label:

1. **SLIDE SWITCHES B** (programmed for scan) **AND C** (programmed for priority scan) **DOWN**.
2. **PRESS THE # KEY** on the keypad to display the group number.
3. **PRESS AND HOLD THE # KEY** to display the group label.
4. **PRESS THE ENT KEY OR WAIT** for about 5 seconds to revert to normal radio operation.

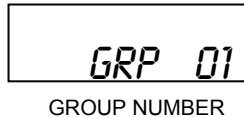


CHANNEL GROUPS



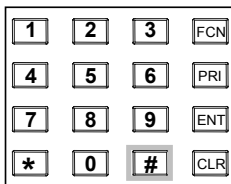
The channel selector knob has 16 positions. Each of these 16 channels is separated into a group of 15 channels. Each of the 15 groups of 16 channels can be programmed to have an “individual personality” with the operational features described earlier.

SELECT A GROUP/CHANNEL



The group/channel selector knob can be programmed by your dealer as a channel selector, a group selector, or a custom group/channel selector.

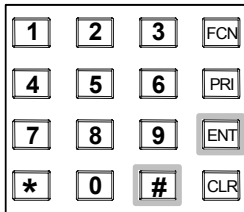
- **CHANNEL SELECTOR.** Knob positions 1–16 select channels in the group selected by the keypad.



1. **PRESS THE # KEY** on the keypad to display the current group number.
2. **PRESS A NUMBER KEY** for the new group number. Only valid group entries will be accepted. For example, if your radio only has five channel groups programmed, digits greater than five will be ignored.

When changing groups, invalid entries will not be accepted, and the radio remains in the previously selected group.

3. **PRESS THE ENT KEY** or wait 5 seconds. The radio returns to normal operation for the new group, and the selected channel is displayed. All selected scanning and priority functions affect only the channels in the group you are operating in.
- **GROUP SELECTOR.** Knob positions 1–15 select groups 1–15.



1. **PRESS # TWICE** to select a channel.
 2. **PRESS A NUMBER KEY** for the new channel number.
 3. **PRESS THE ENT KEY** or wait 5 seconds. The radio returns to normal operation for the new channel, and the selected group is displayed.
- **CUSTOM SELECTOR.** Your dealer will provide you with the pre-programmed group/channel combinations for your radio.

If a knob position is programmed to allow selection of the group and/or channel with the keypad:

1. **PRESS #.**
2. **PRESS THE NUMBER OF THE GROUP** you want to change.
3. **PRESS # TWICE.**
4. **PRESS THE NUMBER OF THE CHANNEL** you want to change.

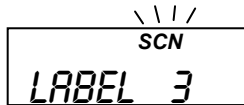
If the group or channel is locked to a switch position, pressing # will only display the knob-selected value. New entries will not be accepted.

SCAN OPERATION



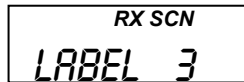
1. **SLIDE SWITCH B (SCAN) UP.**
2. **SLIDE SWITCH C (PRIORITY) DOWN.**

The display indicates scan operation by flashing **SCN**.



Scan operates only while the radio is not transmitting. The radio checks for signals on channels in the preset scan list, as well as the channel selected by the channel selector knob.

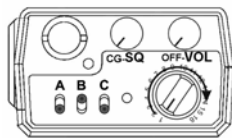
When a signal is detected, scanning stops and the message is received. The received channel is shown in place of the transmit channel.



Once the signal ends, the radio continues to monitor the channel for the preset scan delay time before it resumes scanning.

If your radio is programmed for Nuisance Channel delete and channel scan is assigned to a top switch (Switch B, for example), a nuisance channel can be temporarily removed from the scan list by sliding Switch B down and then back up.

TRANSMIT WITH SCAN ON



When Switch B (scan) is up, the radio transmits on the channel selected by the channel selector knob.

1. **SELECT A TRANSMIT CHANNEL** by turning the channel selector knob.
2. **PRESS THE PTT SWITCH** and talk in a normal voice.

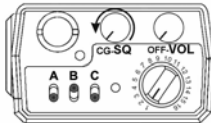
When the PTT switch is released, the radio continues to monitor the selected channel for the preset scan delay time before it resumes scanning.

TALKBACK SCAN

If your radio is programmed for talkback scan, press PTT while a channel is active or while scan-delay time remains. You will be responding on the transmit frequency of the received channel.

Talkback scan will not work if priority scan is also on and your radio is programmed to always transmit on the Priority 1 channel.

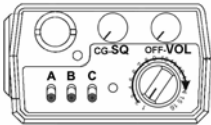
SCAN CODE GUARD CHANNELS



1. **SLIDE SWITCH B (SCAN) UP.**
2. **TURN THE SQUELCH KNOB COMPLETELY COUNTERCLOCKWISE**, past the detent, to the Code Guard position.

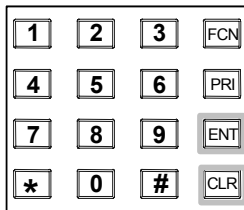
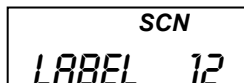
When a signal is detected, scanning stops while the radio checks for the proper Code Guard value. If the signal contains the proper Code Guard value, the radio receives the message. Otherwise, the radio resumes scanning immediately.

CHANGE THE SCAN LIST

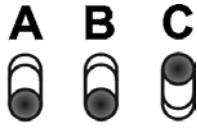


The radio can be programmed to enable the user to add or remove channels from the scan list. If user changes are enabled, follow these steps to change the scan list:

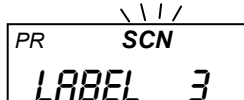
1. **SLIDE SWITCHES B (SCAN) AND C (PRIORITY) DOWN.**
2. **SELECT A CHANNEL** to be added or removed from the scan list by turning the channel selector knob. If the channel is already on the scan list, **SCN** appears in the display.
3. **PRESS THE ENT KEY** to add a channel to the scan list. A short beep sounds and **SCN** appears in the display.
4. **PRESS THE CLR KEY** to remove a channel from the scan list. A short beep sounds and **SCN** disappears from the display.



PRIORITY SCAN



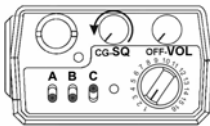
Priority scan enables the radio to receive on any channel while monitoring for a message on the designated priority channel. The radio samples the priority channel at a preset rate (.25–2.0 seconds) regardless of activity on any other channel. Priority scan operates only while the radio is not transmitting and can be used in combination with scan operation.



When Switch C (priority) is up, the display shows **SCN**. If a message is received on the priority channel, the radio receiver locks onto that channel for the duration of the transmission.

PRIORITY SCAN WITH CODE GUARD

Priority scan can be used in combination with Code Guard:



- with Switch C up
- the squelch knob in the Code Guard position (off) and
- the priority channel programmed with Code Guard

If a message is received on the priority channel, the radio receiver locks on to the priority channel for the duration of the signal. The message can be heard only if the proper Code Guard value is received. The radio resumes scanning after the message ends and the scan delay time expires.

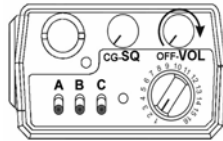
PRIORITY MODES

The radio can be programmed with one of three priority modes: A, B, or C. The table on the next page shows how the priority channels and the transmit channels are selected in each mode.

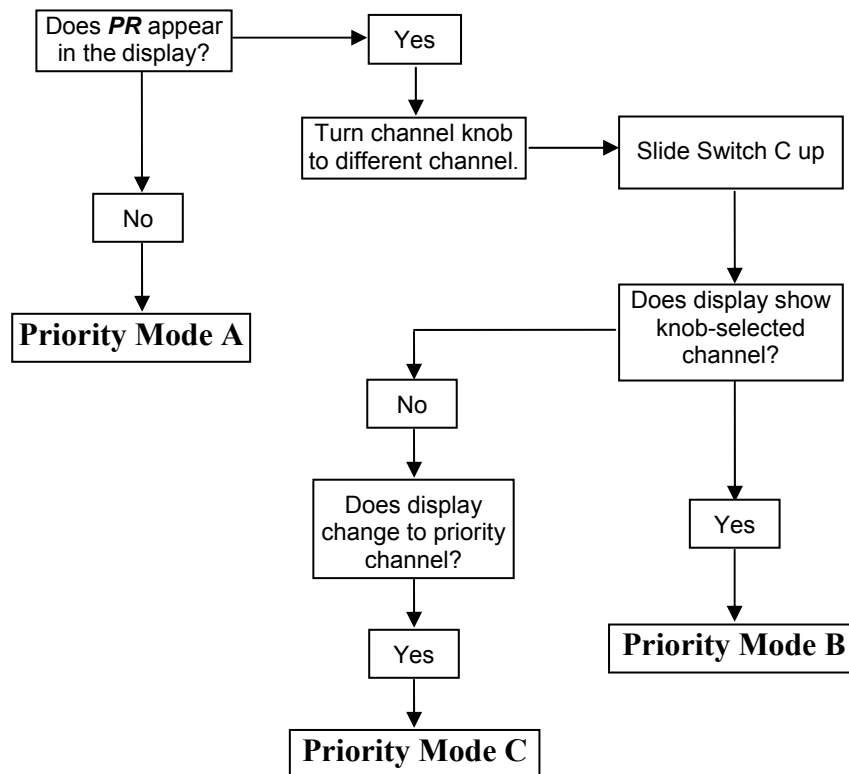
| | Mode A | Mode B | Mode C |
|------------------|--------------|--------------|------------------|
| Priority Channel | Channel Knob | Preset | Preset |
| Transmit Channel | Channel Knob | Channel Knob | Priority Channel |

WHICH MODE IS INSTALLED?

If the radio has a display and keypad, follow these steps to determine which priority mode is programmed:

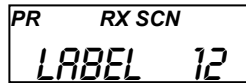


- SLIDE SWITCHES B (SCAN) AND C (PRIORITY) DOWN.**
- TURN THE CHANNEL SELECTOR KNOB**, stopping at each channel to view the LCD display.

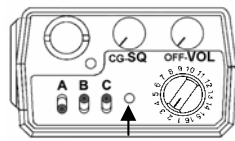


Priority Mode A With Scan

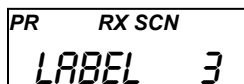
In Priority Mode A, the priority channel is set by the channel selector knob. Priority Mode A is seldom used by itself because the radio receives and transmits only on the knob-selected channel.



When Switches B (scan) and C (priority) are up, scanning occurs until an active scan channel is found. The radio receives the message while continuing to check the priority channel. The display shows the scan channel.



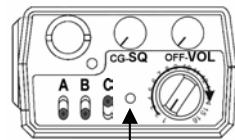
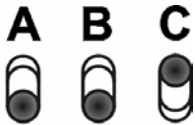
BUSY CHANNEL INDICATOR



If the priority channel becomes active during this message, the priority indicator will light. The radio changes to the priority channel and holds for the duration of the message. The display shows the priority channel.

To reply to a message on the priority channel, press the PTT switch and transmit on the priority channel. Once activity ceases on the priority channel, the radio returns to scan operation.

Priority Mode B



BUSY CHANNEL INDICATOR

With Switch C (priority) up and Switch B (scan) down, the radio can receive on the knob-selected channel while sampling the priority channel. If the priority channel becomes active, the priority indicator lights up. The radio changes to the priority channel and holds for the duration of the transmission.

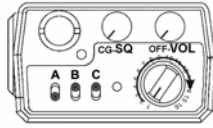
To reply to a message on the priority channel, turn the channel selector knob to the priority channel, and then transmit.

Priority Mode B with Scan



With Switches B (scan) and C (priority) up, the radio scans until it locks on to an active channel. The radio continues to sample the priority channel while listening to the active scan channel.

If activity occurs on the priority channel, the radio overrides the active scan channel, changes to the priority channel, and holds for the duration of the transmission.



To reply to a message on the priority channel, turn the channel selector knob to the priority channel, and then transmit. Once activity has ceased on the priority channel, the radio returns to scan operation.

Priority Mode C



With Switch C (priority) up and Switch B (scan) down, the radio samples the fixed priority channel at the preset rate. If activity occurs on the priority channel the radio changes to the priority channel and holds for the duration of the transmission.

To reply to a message heard on the priority channel, press the PTT switch. The radio transmits only on the priority channel when Switch C (priority) is up. Once activity has ceased on the priority channel, the radio returns to the receive channel on the channel selector knob.

Priority Mode C with Scan

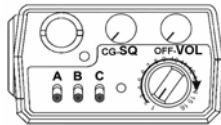
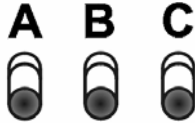


With Switches B (scan) and C (priority) up, the radio scans until it locks on to an active channel. The radio continues to sample the priority channel while listening to the active channel. If activity occurs on the priority channel, the radio overrides the active scan channel, changes to the priority channel, and holds for the duration of the transmission.

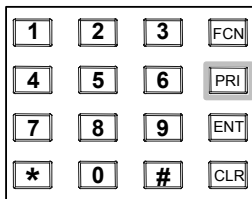
To reply to a message heard on the priority channel, press the PTT switch. The radio transmits only on the priority channel when Switch C (priority) is up. Once activity has ceased on the priority channel, the radio returns to scan operation.

CHANGE THE PRIORITY CHANNEL

The fixed priority channel used in Priority Modes B and C can be permanently set or can be changeable. If the radio has a changeable priority channel, use the following steps to make this change.



1. **SLIDE SWITCHES B (SCAN) AND C (PRIORITY) DOWN.**
2. **TURN THE CHANNEL SELECTOR KNOB** to the channel you want to enter as the new priority channel.



3. **PRESS THE PRI KEY.** A short beep sounds and **PR** appears in the display, indicating that the displayed channel is now the priority channel.

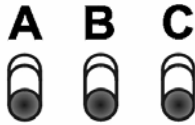


NOTE: Only one channel at a time can be designated as the priority channel.

NOTE: A channel can be the priority channel even if it is on the scan list. Due to multiple sampling of the same channel, however, maximum performance occurs when the priority channel is not on the scan list.

USER SELECTED CODE GUARD

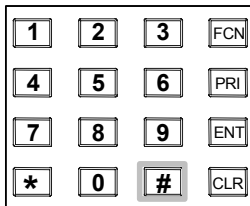
When the radio is being programmed with transmit and receive frequencies for each channel, a receive Code Guard value and a transmit Code Guard value can also be assigned to each channel. If User Code Guard Selection is enabled, the Code Guard values for any channel can be copied to another channel in the radio. If your channel selector does not have the same group assigned to each position, the user-selected guard from the knob-selected group will be linked with the knob-selected channel.



Copy Code Guard
Values from Channel 9



Use Channel 9 Code
Guard Values for Channel



For example, to use the Code Guard values of Channel 9 with the frequencies of Channel 5:

1. **SLIDE SWITCHES B AND C DOWN.**
2. **TURN THE CHANNEL SELECTOR KNOB** to Channel 5.
3. **PRESS THE 9 KEY** on the keypad. The display shows **CG**.

The radio will now operate on the frequencies of Channel 5 with Channel 9 Code Guard values. The display shows the Code Guard channel (9), and then the selected channel (5).




4. **PRESS THE # KEY** to display the Code Guard channel briefly. The display shows the group number, followed by the Code Guard channel, and then the selected channel.
5. **PRESS THE 0 KEY** to reset all values to the original programming, or press different number keys (1–16) to select a different set of Code Guard values.

NOTE: During scan or priority scan, the display does not show user-selected Code Guard values, nor does it access user-selected Code Guard values in scan mode.

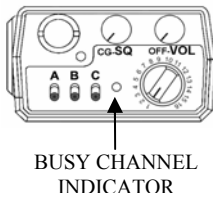
NOTE: If the channel selector knob is on a different group, when you rotate the knob, the new group is programmed differently.

BUSY CHANNEL

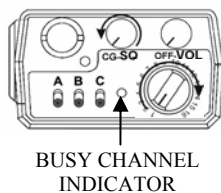
If the radio has been programmed for busy channel operation, it will operate in one of the following three modes:

-  • Busy Channel Indication
-  • Busy Channel Lockout
-  • Busy Channel Lockout Override

BUSY CHANNEL INDICATION



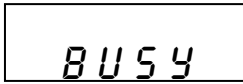
The yellow busy channel indicator glows if there is carrier activity on the selected channel. If the selected channel is a Code Guard channel and the proper Code Guard value is not detected, the busy channel indicator remains on for the duration of the carrier activity and no message is heard. During scan and priority scan operation, the busy channel indicator glows when activity is detected on any channel on the scan list.



When scanning or priority scanning Code Guard channels with the squelch knob in the Code Guard position and activity has been detected, the busy channel indicator glows for the time period necessary to determine if the proper Code Guard value has been received, causing the busy channel indicator to flash at various rates.

BUSY CHANNEL LOCKOUT

The busy channel lockout feature applies only to those channels programmed to receive Code Guard operation. When carrier activity is detected on the channel selected, the radio checks the receive Code Guard value. If the proper Code Guard value is present, the radio can transmit on that channel, even if the squelch knob is not in the Code Guard position.

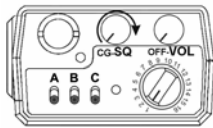


If the radio detects an incorrect value or carrier activity only, the transmitter is disabled, an alert tone is heard, and the display shows the word “*Busy*” when the PTT switch is pressed, whether the squelch knob is in or out of the Code Guard detent.

Channels not programmed to receive Code Guard operation can be used to transmit regardless of carrier activity.



BUSY CHANNEL LOCKOUT OVERRIDE

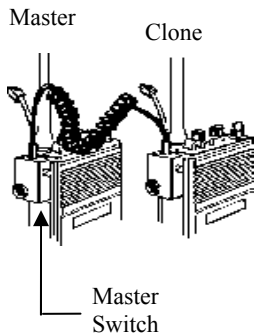


This mode operates in the same manner as busy channel lockout except that the user can override and transmit by turning the squelch knob off the Code Guard detent. The transmitter is locked out only if the squelch knob is set to the Code Guard detent.

CLONING PROCEDURE

STANDARD INSTRUCTIONS

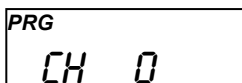
Any “master” radio (a GPH Flex•Mode™ with the desired radio frequencies and settings) is capable of transferring its program to another GPH Flex•Mode™ or “slave” radio. The radio receiving the program is also referred to as the “clone.” The LAA0700 cloning cable will be required in the following procedure.

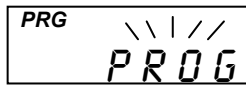


1. **MAKE SURE** the battery packs for both radios are charged.
2. **ATTACH THE MASTER SWITCH END** of the cloning cable to the side connector of the master radio.

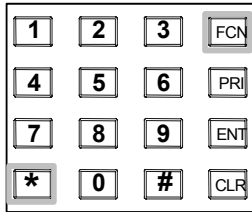
NOTE: One plug of the cloning cable has a push-button master switch. This plug must be attached to the master radio.

3. **TURN ON THE MASTER RADIO.**
4. **SELECT THE GROUP** to be cloned from the master radio.
5. **PUT THE MASTER RADIO IN PROGRAMMING MODE** by pressing and holding the master switch. Enter the password of the selected group. The display shows “**PRG CH 0.**”
6. **REVIEW THE VALUES** in the program. Any required changes must be made now.
7. **CONNECT THE OTHER PLUG** of the cable to the side connector of the radio you want to clone.
8. **TURN ON THE CLONE** and set it to the desired channel group.





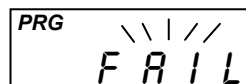
9. **PRESS THE * KEY** on the master radio keypad. The display will flash “**PROG**” signifying that the radio is ready to download its program to the clone.



10. **PRESS THE FCN KEY** on the master radio keypad. The program in the master will then be downloaded to the clone. The clone will automatically send back the program to the master to verify a successful cloning.

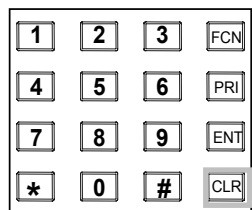
11. **IF THE DOWNLOAD WAS SUCCESSFUL**, the display on the master will resume flashing “**PROG**”.

- To clone the other channel group, turn off both radios and go back to Step 3 on the previous page, changing the channel group as required.
- If cloning is finished, turn off the clone and disconnect the cloning cable. Normal radio operation will occur when you turn on the clone.



12. **IF THE DOWNLOAD WAS NOT SUCCESSFUL**, the master will display “**FAIL**” and multiple beeps will follow. Failure of downloading can be due to:

- Improper connection
- Failure to turn on the clone
- Setting the clone in programming mode

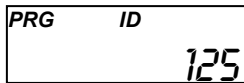


NOTE: To stop the “**FAIL**” mode, press **CLR**, turn off both radios, and try again, starting with Step 1 on the previous page.

SPECIAL CLONING INSTRUCTIONS

You can change Channel 0 values on the master radio, hold them in a temporary memory, and download them to the clone without actually entering them into the permanent memory of the master. This is convenient if sequential identification numbers are used to identify a series of portables in a radio system. Assuming that the frequencies, Code Guard values, and other CH 0 values are common for all radios in the system, but that the radio identification number should be unique to each radio, the following method can be used to clone additional radios for the system:

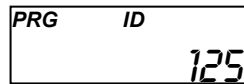
1. **PROGRAM THE MASTER** with all frequencies, Code Guard values, and Channel 0 values that will be common to all radios.



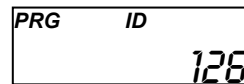
2. **ADVANCE THE DISPLAY** to show the ID number of the master (for example **100**).

3. **PRESS CLR**; press **1**, **2**, and **5**. The ID number **125** is now only in temporary memory.

4. **PRESS ***, connect the cloning cable to the clone radio, and download by pressing **FCN**. ID number 125 is now stored in the permanent memory of the clone.

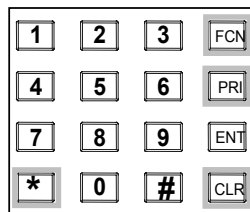


5. **AFTER DOWNLOADING, PRESS CLR**. Disconnect the clone. The master radio display will show that *125* is still being held in the temporary memory of the master.



6. **PRESS PRI**. This will increment the ID number one digit to 126.

NOTE: Any new number can be entered at this point by pressing **CLR** and using the keypad to enter the new number.



7. **PRESS ***. Connect the cloning cable to the next clone and download by pressing **FCN**.

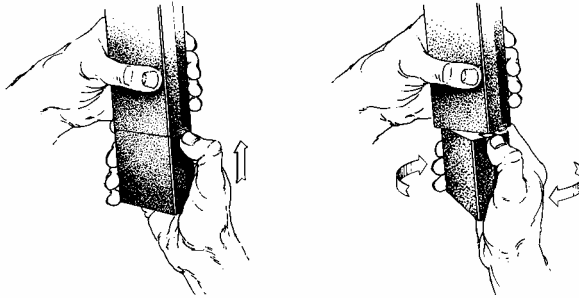
Any number of radios can be coded with different or sequential ID numbers using this technique. The ID number in the permanent memory of the master will remain unchanged at 100.

BATTERY INSTALLATION AND REMOVAL

BK Radio battery packs are available in a variety of sizes and types for special applications. Rechargeable battery packs can be charged separately or while attached to a radio.

INSTALLING THE BATTERY

1. **LOCATE THE CENTER HUB** on the radio base and place it in the recess of the battery pack.
2. **POSITION THE BATTERY PACK** at the 30° offset, seating the two metal studs in their recess.
3. **APPLY UPWARD PRESSURE** to the pack while twisting the pack to its original position. The metal tab will click, locking the pack in position.



REMOVING THE BATTERY

1. **TURN THE RADIO OFF.**
2. **PUSH UP THE METAL TAB** on the side of the case while twisting the battery pack approximately 30°.
3. **REMOVE BATTERY PACK** from the radio.

NOTE: Periodically check the contacts on the battery pack for dirt that could prevent a good electrical contact with the charging base.

WARNING: Explosion Hazard



Do not dispose a battery pack into a fire.

To avoid explosion, intrinsically safe radios designed for use in hazardous environments **MUST** use replacement batteries approved by Factory Mutual.

DEFINITIONS AND ACRONYMS

| | |
|------------------------|--|
| ANI | Automatic Number Identification |
| CG | Code Guard |
| CLR | Clear |
| Cloning | The process of copying data from one radio, called “master,” to other radios, called “slaves” or “clones” |
| Code Guard | A subaudible tone for selective listening and receiving |
| Detent | The click/hesitation you feel as you turn a knob from one position to another |
| DTMF | Dual Tone Multiple Frequency |
| DTMF Tones | Tones that sound like those used by a standard push-button telephone |
| ENT | Enter |
| FCN | Function |
| LCD | Liquid Crystal Display |
| Individual Personality | The information programmed with a PC on both a global and by-channel basis that tells the radio exactly how to operate |
| PRG | Program |
| PRI | Priority |
| PTT | Push To Talk |
| RTA | Repeater Talk Around |
| RX | Receive |
| SCN | Scan |
| SQ | Squelch |
| Squelch | A control that eliminates background noise |
| Talkback Scan | When scanning, if a signal is present, the scan will stop and you will hear the signal. If you then push the PTT switch to talk back to the person, you are in talkback scan mode. |
| Time-Out Timer | A feature that limits the duration of calls |
| TX | Transmit |

SERVICE

If you need service, contact your local BK Radio dealer equipped to service your radio. If you find it impractical to have service performed by your local dealer, contact BK Radio at the address below:

BK Radio, Inc.
ATTN: Customer Service
7100 Technology Drive
West Melbourne, FL 32904
(800) 422-6281