WASHINGTON STATE DEPT OF
NATURAL
RESOURCES

M-150
Mobile Radio
User Guide

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1. KNG MOBILE RADIOS

The KNG mobile radios from BK offers DNR radio users improved features and increased channel capacity.

The KNG mobile and portable radios share many features and are operated by similar controls and menues.

RADIO CONTROLS

There are three types of controls on the KNG mobile radios.

Hard Controls

These controls have a fixed purpose, such as the volume control, the push-to-talk switch, or the channel knob.

Programmable Controls

These controls are configured as part of radio programming; there are several functions that can be assigned to a given button. Buttons may be configured to control the scan function, activate a menu, or any number of options.

Soft Controls

These change function depending on the operation or menu selection being chosen by the user and have an associated display to identify the function. For example, a "Channel Add" button will become the "Channel Delete" button depending on the channel selected.

MENU NAVIGATION

KNG mobile radios are menu-driven. All user selectable functions can be accessed through the menu system.

For convenience, frequently used functions may be assigned to a programmable button. As such, there may be more than one method for accessing a given function.
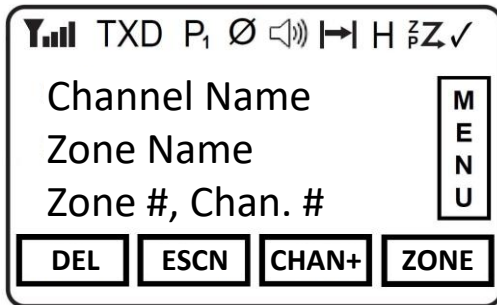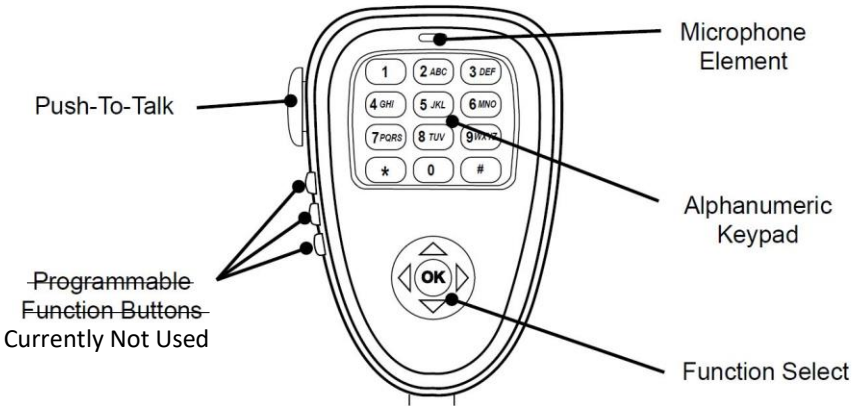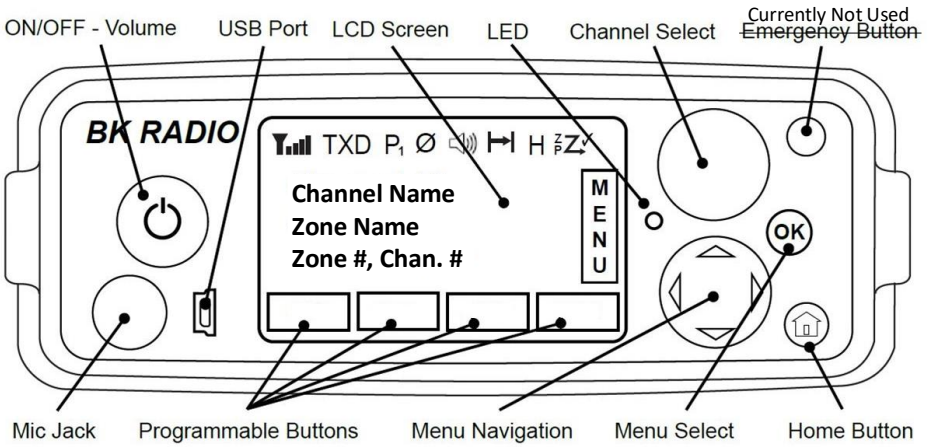
For example: the touchscreen controls, the navigation control on the control head, and the navigation control on the keypad microphone will each accomplish the same functions.

ON/OFF/VOLUME

1. **Press** the Volume knob to turn on/off

2. **Rotate** the Volume knob to the desired setting.

It may be helpful to open the squelch to provide sound when setting the volume.

ON/OFF - Volume | USB Port | LCD Screen | LED | Channel Select | Currently Not Used Emergency Button

BK RADIO

Channel Name
Zone Name
Zone #, Chan. #

MENU

Mic Jack | Programmable Buttons | Menu Navigation | Menu Select | Home Button

Push-To-Talk

Microphone Element

Alphanumeric Keypad

Programmable Function Buttons
Currently Not Used

Function Select

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Channel Name
Zone Name
Zone #, Chan. #

MENU

DEL | ESCN | CHAN+ | ZONE

INDICATORS

–	Receive Level	$\mathbf{Y}_{\cdot}\mathbf{ul}$	–	Simplex Channel	$\vdash\!\!\dashv$
–	Battery Level	$\overline{\text{IIIII}}$	–	Monitor Mode	$\lhd$)
–	Transmit Power	**H** or **L**	–	Channel In Scan List	$\checkmark$
–	Priority 1 Channel	**P1**	–	Priority 2 Channel	**P2**
–	Channel Scan On	$^{c}\!Z$	–	Priority Scan On	$_{p}Z$

SQUELCH SETTINGS

Squelch should be set just at the threshold (minimum value) when noise is muted.

1. Select **MENU**, then select **Squelch Adjust.**

2. Adjust the **+/-** button until noise is heard. ("open" squelch.)

3. Adjust the **+/-** button until noise stops. ("closed" squelch.)

4. Press the **ENTER** button to set the level.

TRANSMIT POWER

On the, transmit power is controlled by the programming for each channel. It is not user adjustable.

ZONE SELECT

1. Select **MENU**, then choose **Zone Select.**

2. Scroll the list of available channels using the **UP** or **DOWN** buttons
   – OR –
   Enter the desired zone using the **number keys** on the keypad.

3. Press OK to confirm the selection.

HOME BUTTON

The Home button will return the radio to the designated channel and zone from any other channel and zone in the radio.

The Home button can also be used to exit any Menu mode and return to normal radio operation.

Returning to the Home Channel

1. **Press** the **HOME** button momentarily to return to the home channel or to exit a menu mode.

Programming the Home Button

The Home button can be any channel or zone in the radio selected by the user.

1. **Press and Hold** the **HOME** button to set the home channel.

2. A beep sound will confirm the selection.

To fit a given user's circumstances, the Home button could be reprogrammed any number of times during the day.

CHANNEL SELECT

Radio Channels can be selected using the channel knob or the keypad.

Channel Select Switch

1. Rotate the **Channel Select** knob to change to the desired channel.

NOTE: The channel select switch on the portable radio has 16 positions and stops at position #1 and position #16.

NOTE: The channel select switch on the mobile radio has no stops and will sequence from the last channel back to the first channel as the knob is turned.

Menu Method

1. Select **MENU**, then choose **Channel Select.**

NOTE: Pressing any of the **number keys** on the keypad microphone will also activate the **Channel Select** menu.

2. Scroll the list of available channels using the **UP** or **DOWN** buttons
   – OR –
   Enter the desired channel using the **number keys** on the keypad.

3. Press **OK** to confirm the selection, then press either **ESC** or the **HOME** button to exit the menu.

COMMAND (CUSTOM) ZONES

Command Zones, labeled as Custom 1, Custom 2, etc., are similar to a Favorites Menu on a computer. Any channel in the radio can be copied to a Command Zone for convenience. As with any other zone, channels in a Command Zone can be entered into a Scan List.

Adding a Channel to a Command Zone

1. Select the **Channel** and **Zone** of the desired channel.

2. Press the **CHAN+** button.

3. Scroll the list of available Command Zones using the **UP** or **DOWN** buttons.

4. Enter the **Channel Number** within the Command Zone using the **number keys** on the keypad.

5. Press **OK** to confirm the selection.

Deleting a Channel from a Command Zone

1. Select the **Zone** and then the **Channel** to be deleted.

2. Press the **CHAN–** button to delete the selected channel. (This was the CHAN+ button)

3. Press **OK** to confirm the selection.

NOTE: The CHAN+ button becomes the CHAN– button.

SCAN OPTIONS

The KNG series radios, both mobile radio and portable radio, support an array of scanning functions; the basic scanning functions are enabled for DNR radios.

Program the Scan List

The first step in using Scan is to create a list of channels to be scanned. Limiting the scan list to no more than 4 channels is recommended.

NOTE: When radios are reprogrammed the scan list may be cleared and you will have to reset the list.

NOTE: Regardless of which channel the radio stops on during scan, it will always transmit on the channel currently selected by the Channel Select knob.

Per Channel Method
1. Select the desired channel.

2. **Press and Hold** the **SCAN+** button on the portable radio or the **SCAN** button on the mobile radio to add a channel to the scan list.

   Press the button again to remove the channel from the scan list

3. The Scan List symbol will appear on the display for that channel.

Menu Method
1. Select **MENU**, then choose **Channel Scan List**.

2. Scroll through the scan list to **review**, **add**, and **delete** channels.

3. Press **ESC** or **HOME** to exit the menu.

Channel Scan Mode

1. Press the **SCAN** button on the touchscreen.

2. The Channel Scan symbol will appear on the display.

Priority Scan

Priority Scan helps avoid missing messages on the primary channel. When enabled, Priority Scan checks the priority channel for messages while receiving on any other channel. The radio will switch to the priority channel even if receiving on another channel. It is normal to hear a slight clicking when receiving on a non-priority channel as the radio is briefly checking the priority channel.

CAUTION: Although the **SCN** symbol will be flashing when Priority Scan is enabled, the radio will not actually be scanning unless the **SCAN** toggle switch is also turned on.

1.   Select **MENU**, then choose **PSCN**.

2.   The Priority Scan symbol will appear on the display.

Nuisance Channel Delete

A channel can be temporarily removed from the scan list. The
may be desirable when the channel has excessive or irrelevant
traffic. Multiple channels may be removed if desired.

1.   Press the **DEL** button while the nuisance channel is being received.

2.   To restore the programmed scan list, turn off **Scan** or cycle **radio power**.

Cloning Portable Radios_____

It is possible to clone your portable radio to the M-150 mobile radio in your vehicle. We expect this will only be necessary on an incident where there is an established "205" Incident Communications Plan. Please be aware that:

- Some channels are limited to low transmit power levels and the mobile radio generally transmits on HIGH power only – 50 Watts, versus the 2 watts on a portable.   Coordinate with incident radio techs regarding this issue. It may not be appropriate to use those incident specific channels on HIGH power.

Cloning instructions follow.

KNG as Target Radio (firmware version 4.6.2 and higher)

To clone to a KNG radio, it must be put in "Destination Clone Mode." The KNG radio can only receive "Active Zone" or "Picklist" clone information.

```
            Cloning
    Clone Active Zone
    Clone Picklists
  ► Enter Dest Clone
  ESC   PREV   NEXT   ENT
```

On the KNG Target radio:

1. Select the Menu button.
2. Use the up/down buttons to select "cloning".
3. Press the [ENT] button.
4. Select "Enter Dest Clone".

```
    Destination Clone
          Mode
        Waiting...
                  EXIT
```

When the KNG Target radio is in "Destination Clone Mode", the Source radio can initiate the cloning of the "Active Zone" or "Picklist".

```
    Destination Clone
          Start
```

When cloning has started, the KNG Target radio will display "Destination Clone Start"

```
       Powering off
```

After a successful information transfer, "Power off" is displayed and the radio will restart.

```
       Zone to Zone
       Unsupported
```

The only cloning functions supported by the KNG Target radio are "Active Zone" and "Picklist". All other functions are unsupported.

NOTES

NOTES

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