



NATIONAL INTERAGENCY INCIDENT COMMUNICATIONS DIVISION KING EPH/EPV PORTABLE RADIO PROGRAMMING GUIDE V3.1, 2010



1. Select a group and channel you wish to program

Note: To change groups, press the "#" key followed by a 2-digit group number and press the "ENT" key.

2. Access Program Mode

- Insert a programming plug into the side connector of the radio.
 - Press and hold the red Master Switch on the programming plug.
 - Press and hold the "FCN" key for approximately three seconds until the LCD displays " -- -- ID". (See Figure 1)
 - Enter a valid password if requested. **NIFC Default password is "000000"**
 - Press the "ENT" key to proceed into the programming mode.
 - If the correct password was entered, the LCD displays either " PASS" or " ^{PRG}CH00". (See Figure 2)
 - If the display indicates " PASS", press the "ENT" key to proceed to " ^{PRG}CH00" parameters.
- Note:** If the EPH radio does not indicate "PASS" while entering Program Mode, it can not be used as a Master Clone radio if Narrow-Band frequencies are used.

3. Once in Program Mode, select a 2-digit channel number (01-14) to program using the keypad.

Note: At this point, pressing the "FNC" key will scroll through that particular channel settings.

4. Once the wanted channel is displayed, the **Bandwidth Setting** can be set.

Press the "#" key to toggle between Wide-Band and Narrow-Band. (See Figure 3)

Note: The "N" indicates that the channel is set for Narrow-Band operation, No indication for Wide-Band operation. NIFC Default is set to "N" for Narrow-Band.

5. Once the Bandwidth is set, press the "FCN" key to scroll to the next programming parameter.

The LCD will display " ^{PRG RX}162.5500" for programming the **RX Frequency**. (See Figure 4)

Press the "CLR" key to clear the current frequency and enter a valid VHF RX frequency and press the "ENT" key.

6. The LCD will display " ^{PRG RX CG}000.0" for programming the **RX Code Guard**. (See Figure 5)

Press the "CLR" key to clear the tone and enter a valid tone using the keypad and press the "ENT" key.

Note: NIFC Default is set to "000.0", for NO RX Tone.

To Enable RX Code Guard, turn the Squelch Code Guard knob counterclockwise into the detent position.

7. LCD will display " ^{PRG TX}168.05000" for programming the **TX Frequency**. (See Figure 6)

Press the "CLR" key to clear the current frequency and enter a valid VHF TX frequency and press the "ENT" key.

8. LCD will display " ^{PRG TX CG}110.9" for programming **TX Code Guard**. (See Figure 7)

Press the "CLR" key to clear the current tone and enter a valid tone using the keypad and press the "ENT" key.

Note: Not all repeaters require a code guard from the radio, incident dependent.

9. LCD will display the channel name/label, press the "ENT" key to keep name/label and finish programming the channel or press the "CLR" key to change the name/label for that channel. (See figure 8)

10. Changing Channel Label

- Press the "CLR" key to clear the label.
- Press the "PRI" key to scroll through available Alphanumeric Characters.
- Press the "FCN" key to enter a character and shift to the left for the next character.
- Repeat the process until desired name/label is entered and press the "ENT" key.

Note: LCD is an 8 character display.

Not all NIFC EPH or EPV radios are Alphanumeric programmable.

NIFC Default is set to display Numeric display only in "CH 00" parameters.

11. Once the label is entered, the program will bring the first channel parameter up. Channel programming is complete. At this point the user may select another channel to program or exit the program mode by cycling power to the radio.

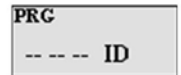


Figure 1

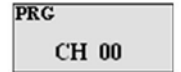


Figure 2



Figure 3

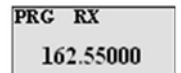


Figure 4

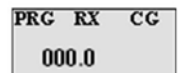


Figure 5

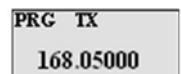


Figure 6

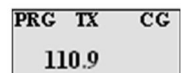


Figure 7



Figure 8



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ADD/REMOVE CHANNELS FROM SCAN LIST

1. To **ADD channel to Scan List**, select a channel to scan with the channel select knob and press the " ENT" key.
LCD will display "SCN" in the upper section, indicating that the current displayed channel is in the scan list. (See Figure 1)
2. To **REMOVE channel from Scan List**, select the channel to remove with the channel select knob and press the " CLR" key.
"SCN" will be removed from the upper section of the LCD.

Note: Scan must be disabled in order to add or remove channels from the scan list, by toggling the "SCAN" and "PRI" toggle switches in the down position. (Toward the front of the radio)

ADD PRIORITY SCAN CHANNEL

1. To **select a channel as a Priority Scan Channel**, select a channel and press the " PRI" key. (See Figure 2)
LCD will display "PR" in the upper section, indicating that the current displayed channel is now the Priority 1 Channel.

Note: Scan must be disabled in order to add or remove Priority 1 channel, by toggling the "SCAN" and "PRI" toggle switches in the down position. (Toward the front of the radio)

In order to set the Priority Channel with the keypad, Priority Mode must be either set to B, C, or D.
NIFC Default is Priority Mode A, Priority Channel follows the position of the channel select switch, so the user can not change the Priority Channel via the keypad.

ENABLE/DISABLE SCAN/PRIORITY SCAN

1. **Enable Scan**, by toggling the Scan Toggle Switch to the up position. (Toward the back of the radio)
LCD will indicate scan is enabled by flashing " -- --" in the right side of the display if alphanumeric mode is disabled.
(See Figure 3)

or

LCD will indicate scan is enabled by flashing " SCN" in the upper part of the display if alphanumeric mode is enabled.

2. **Disable Scan**, by toggling the Scan Toggle Switch to the down position. (Toward the front of the radio)
3. **Enable Priority Scan**, by toggling the PRI Toggle Switch to the up position. (Toward the back of the radio)
LCD will indicate Priority Scan is enabled by flashing " -- --" in the right side of the display and with a " PR" icon in the top portion of the display if alphanumeric mode is disabled. (See Figure 4)

or

LCD will indicate Priority Scan is enabled by flashing " SCN" in the upper part of the display if alphanumeric mode is enabled.

Note: When scan is enabled, the radio will scan the current selected channel along with the current channels entered in the scan list.

4. **Disable Priority Scan**, by toggling the PRI Toggle Switch to the down position. (Toward the front of the radio)
Note: Depending on what type of Priority Scan Mode is enabled, the LCD will display and operate differently for each priority mode. Check the priority mode in the "CH 00" Group Settings.
NIFC Default is set to Priority Mode A.

CHANGING GROUPS

1. Press the "#" key followed with the 2-digit number of the desired group and press " ENT" or wait 3 seconds. (See Figure 5)
Note: All EPH/EPV NIFC model radios have a 15 group capacity.
On EPV Model Radios, the user must wait 3 seconds after entering the new group number for the radio to change groups.
Groups 1-4 contain the Standard NIFC Frequencies.

TX USER SELECTABLE TONES

1. To **Enable Selectable Tone**, press one of number keys (1-9) to select a preprogrammed TX User Selectable Tone.
Display will indicate a TX User Selectable Tone is enabled by displaying the " CG" icon in the top portion of the LCD.
If Alphanumeric Mode is Disabled, display will also indicate the selected TX User Tone. (See Figure 6)
2. To **Disable Selectable Tone**, press the "0" key on the keypad.
Note: NIFC default is TX User Selectable Tones disabled. Tones can be enabled through the " CH 00" settings.

HI/LOW POWER SETTINGS (EPH ONLY)

1. **Select Low Power** by toggling the LO/Hi Toggle Switch to the up position. (Toward the back of the radio)
2. **Select High Power** by toggling the LO/Hi Toggle Switch to the down position. (Toward the front of the radio)
Note: NIFC Low Power setting is set to 2.0 Watts, High Power setting is set to 5.0 Watts. (Current draw dependent)

TALK AROUND (TA) EPV ONLY

1. **Enable TA** by toggling the TA Toggle Switch to the up position. (Toward the back of the radio)
2. **Disable TA** by toggling the TA Toggle Switch to the down position. (Toward the front of the radio)
Note: TA allows the user to TX and RX on the RX Simplex Frequency if channel is programmed with Duplex Frequencies.
Leave TA toggle switch disabled at all times.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



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CLONING RADIO SETTINGS (See Figure 5)

1. Turn both radios ON.
2. Attach the Master end of the cloning cable to the side connector of the Master radio.
3. Put the Master radio in programming mode by holding down the Master Switch and pressing the " FCN" key simultaneously on the radio until the LCD displays (-- -- ID). (See Figure 1)
4. Enter a valid password, if requested, and press the " ENT" key. (NIFC Default Password is set to "000000")
The LCD will display either " PASS" or "CH 00" depending on the radio, if the correct password was entered. (See Figure 2)
Note: If the EPH radio displays "PASS" press the "ENT" key to proceed to "CH 00" parameters.
If the radio does not display "PASS" it can not be used as a Master clone if Narrow-Band frequencies are used, only Flex-Mode Models can clone Narrow-band Frequency List.
5. Attach the other end of the cloning cable to the side connector of the radio to be cloned.
6. Press the "*" key on the Master radio.
The LCD will flash "PROG", indicating that the radio is ready to download. (See Figure 3)
7. Press the "FCN" key to download to clone/slave radio.
If the clone was successful, the Master radio will resume flashing " PROG" on the display.
If the clone was not successful, the Master radio will flash " FAIL" followed by continuous beeps. (See Figure 4)
Note: To stop "FAIL" mode, press the "CLR" key, turn off the radios, and start the cloning process again.
When the Master radio downloads to a clone, the Scan List and Priority Channel designations are also downloaded to the clone radio.

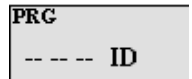


Figure 1

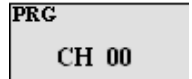


Figure 2



Figure 3



Figure 4



Figure 5

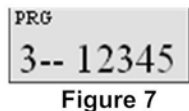
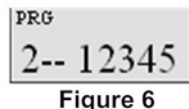
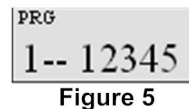
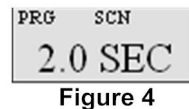
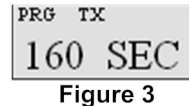
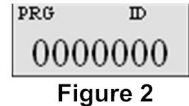
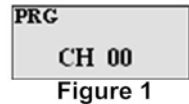


NATIONAL INTERAGENCY INCIDENT COMMUNICATIONS DIVISION KING EPH/EPV PORTABLE RADIO "CH 00" SETTINGS V3.1, 2010



Note: "Channel 00" settings contain general performance variables for all channels in each group. There is a "Channel 00" setting for each group, so each group must be programmed separately.

1. Select a group you wish to program.
 2. Access the Program Mode to enter the "CH 00" Settings. (See Figure 1)
(See Access Program Mode on page 1)
 3. Once "CH 00" is displayed, press the "FNC" key to scroll to the first "CH 00" parameter.
 4. The display will indicate "PRG ID 0000000" for the **Group Automatic Numeric Identification** parameter (ANI). (See Figure 2)
This is used as either a radio management number of transmitted as a DTMF tone. Press the "ENT" or "FNC" key to advance to the next field. (NIFC Default is set to "0000000")
 5. The display will indicate "PRG TX 160 SEC" for the **Transmit Tim-Out Timer (TOT) duration**. (See Figure 3)
To change the TOT, press the "PRI" key to increase the TOT duration and press the "ENT" to store value and advance to the next field. (NIFC Default is set to "120 SEC")
Note: A TOT value of 0.0 Seconds, disables the TOT.
 6. The display will indicate "PRG SCN 2.0 SEC" for the **Scan Delay Time**. (See Figure 4)
To change the Scan Delay Time, press the "PRI" key to increase the duration and press the "ENT" key to store and advance to the next field. (NIFC Default is set to "2.0 SEC")
 7. The display will indicate "PRG 1--12345" for the **group 1 functions**. (See Figure 5)
The group functions can be enabled or disabled by pressing the number key corresponding to that function.
- CH 00 Group 1 Functions** NIFC Default is "1-12345" (See Figure 5)
- 1-12345.....**Battery Saver** (Disables the Battery Saver Function reduce current drain and battery life.)
 - 1-12345.....**Priority Mode A** (Priority Channel follows the position of the current selected channel.)
 - 1-12345.....**Priority Mode B** (Priority Channel is fixed, but the user will transmit on the current selected channel.)
 - 1-12345.....**Priority Mode C** (Priority Channel is fixed, but the user will transmit on the Priority Channel when the Priority Toggle Switch is enabled, and the display will indicate the Priority Channel.)
 - 1-12345.....**Priority Mode D** (Same as Priority C, but display will indicate the current selected channel.)
 - 1-12345.....**Priority Key Lockout** (Enables the lock out of the "PRI" key, so user can not change the Priority 1 Channel.)
 - 1-12345.....**Scan List Lockout** (Enables Scan List Lockout, so user can not change the channels in the scan list.)
- CH 00 Group 2 Functions** NIFC Default is "2-12345" (See Figure 6)
- 2-12345.....**User Code Guard** (Enables keypad to independently select a Channel Code Guard value from programmed channels.)
 - 2-12345.....**Busy Channel Indicator** (Yellow LED illuminates when signal is received on selected channel.)
 - 2-12345.....**Busy Channel Lockout** (Yellow LED illuminates and PTT is disabled when a signal is received on selected channel.)
 - 2-12345.....**Busy Channel Lockout/Over-ride** (Same as Busy Channel Lockout, but PTT can be activating the Squelch Code Guard.)
 - 2-12345.....**ANI** (Enables the ANI ID number to be transmitted with each press of the PTT as a DTMF tone.)
 - 2-12345.....**Manual DTMF Encoder** (Enables keypad for manual DTMF operation.)
 - 2-12345.....**Manual DTMF/ANI Encoder** (Enables the ANI ID number to be transmitted only after the "ENT" key is pressed during TX.)
- CH 00 Group 3 Functions** NIFC Default is "3-12345" (See Figure 7)
- 3-12345.....**LCD Back light ON Main Channel Activity** (LCD back light will illuminate each time there is activity on the selected channel.)
 - 3-12345.....**LCD Back light ON Scan Channel Activity** (LCD back light will illuminate each time there is activity on a scanned channel.)
 - 3-12345.....**LCD Back light ON Other Display Activity**
 - 3-12345.....**LCD Back light ON Key Press** (LCD back light will illuminate each time a key is pressed.)
 - 3-12345.....**Alphanumeric Mode** (LCD will display Alphanumeric Characters.)
- Note:** Not all NIFC EPH/EPV radios are Alphanumeric capable.
10. After "CH 00" Group 3 Functions, the display will indicate "PRG LITE OFF" for the **LCD Back light Duration Setting**.
To change the back light duration, press the "PRI" key to select an available setting and press the "ENT" key to store and advance to the next field. (See Figure 8)
(NIFC Default is "OFF")
 11. The display will indicate the current **group label**. (See Figure 9)
Press the "ENT" key to advance back to the "CH 00" starting point.
At this point, pressing the "FNC" key repeatedly will scroll down each value of the "CH 00" settings for that channel.
If no changes are needed, exit the program mode by cycling power to the radio or continue with programming other CH.





NATIONAL INTERAGENCY INCIDENT COMMUNICATIONS DIVISION KING EPH PORTABLE RADIO BASIC OPERATION & RADIO CONTROLS V3.1, 2010



1. Turn power **ON** by turning the ON/OFF Volume Knob clockwise.
A beep indicates the radio is operational. The LCD will indicate the current channel.
2. Select a group number by pressing the " #" key and entering a 2-digit number followed by the " ENT" key.
3. Select a channel by turning the Channel Select Knob to one of the 14 available positions.
4. Adjust the volume by turning the Squelch Knob clockwise to open the squelch and set the volume to desired level.
5. Adjust the Squelch by turning the Squelch Knob counterclockwise until the squelch closes.

Note: *This is the Threshold Squelch Setting.*

Turn the squelch Knob fully counterclockwise into the detent position to place the RX in Code Guard. RX must have a tone programmed in order for RX Code Guard to function properly. Putting the RX in Code Guard, will enable the RX not to open squelch unless it receives the correct tone.

The radio is now ready to RECEIVE on that current channel.

6. To transmit, press and hold the Push-To-Talk (PTT) button on the side of the radio.

Note: *The Transmit Indicator Light should glow red while transmitting. If not, the battery may be low or the channel is RX only or busy.*

7. Pause 1 second and talk in a normal voice into the microphone.

Note: *Try to shield the microphone from wind and other loud background noises for clearer transmissions.*

8. Release the PTT to stop transmitting and receive incoming transmissions.



Figure 1: EPH Top View



Figure 2: EPH Front View

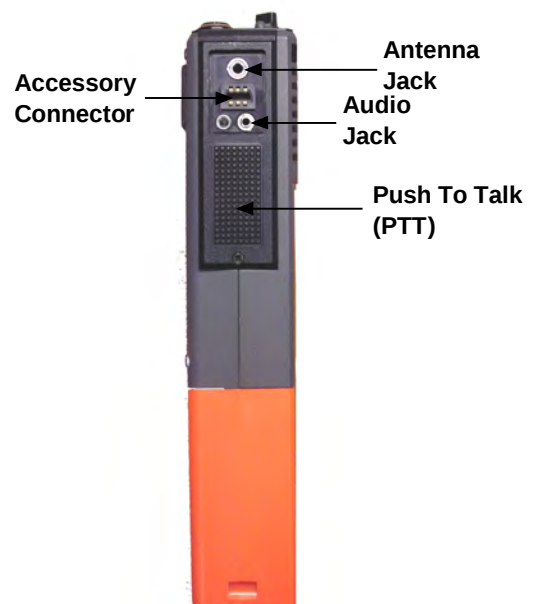


Figure 3: EPH Side View



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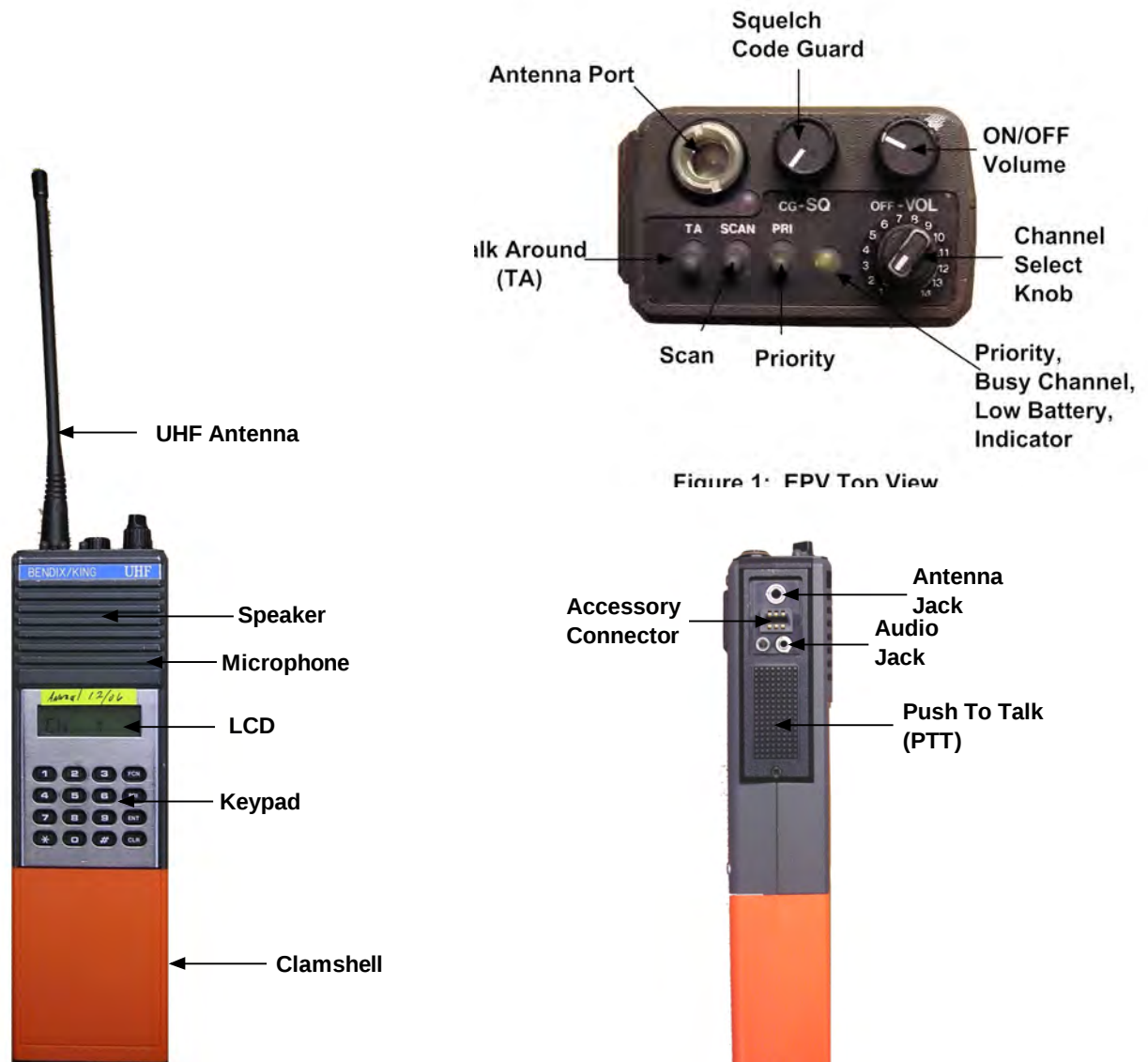


Figure 2: EPV Front View

Figure 3: EPV Side View