


## LOW BATTERY INDICATION

When the battery discharges to the point where recharging is required, the  icon is displayed. The battery should be recharged or replaced as soon as practical after this indication appears. Additional low battery indications that may be programmed include a beep that sounds every minute, another that sounds when the PTT switch is pressed, and/or a top panel indicator that flashes red every 30 seconds.

## OPTION BUTTONS

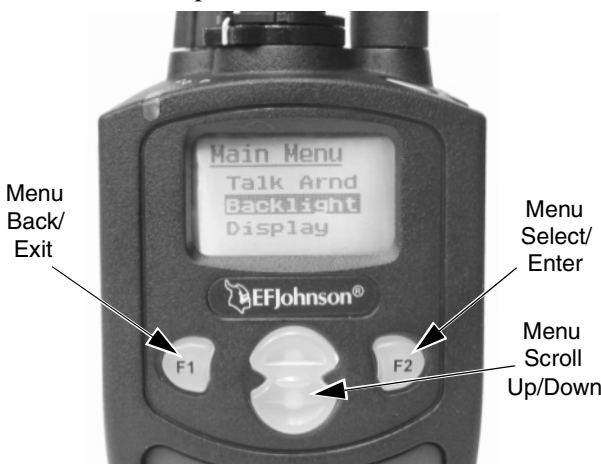
Almost all the buttons on this transceiver are programmable unless they are dedicated to a specific function. The programmable buttons are as follows:

- On the side panel, the three buttons above the PTT switch.
- On the top panel, the orange button and rotary three-position switch.
- On the front panel, F1 and F2 if the menu mode is not used (see next section), and F3 and F4.
- With DTMF keypad models, all 12 DTMF keys (0-9, #, \*).

Each option button can be programmed to control a different function in each of the three operating modes (conventional, SMARTNET®/SmartZone®, Project 25 Trunked).

## MENU MODE

Many transceiver functions are controlled by the menu mode, an option switch, or both. Only the functions which apply to the selected channel type are displayed. The availability of the menu mode and the parameters that are selectable are determined by system operator programming. The menu mode operates as follows:



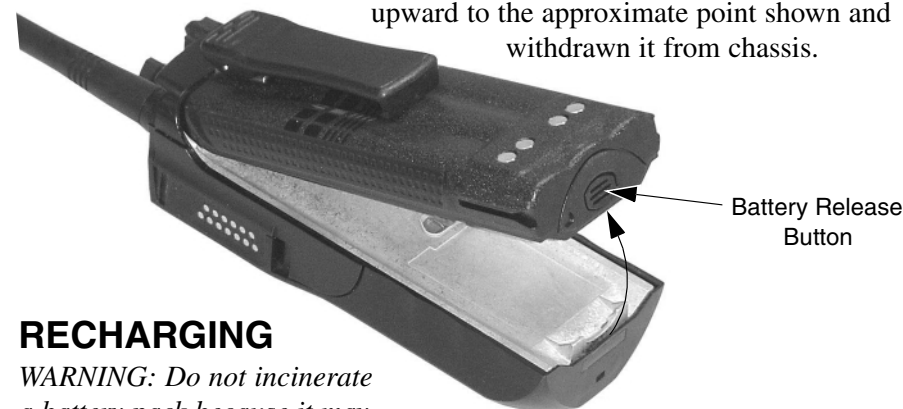
1. Press the F2 key to select the menu mode. The selectable menu parameters are then displayed below "MAIN MENU" as shown.
2. Press the Up/Down button to scroll up or down through the list until the parameter you want to change is highlighted by the bar.

(Continued)

3. Press the F2 button to select the highlighted parameter. The available modes for that parameter are then displayed and the currently selected mode is indicated by an asterisk.
4. Press the Up/Down button to highlight the desired mode. Then press the F2 key to select that mode.
5. To step back to the previous menu level or exit the menu mode, press the F1 (Clear) key.

## BATTERY REMOVAL / INSTALLATION

To remove the battery from the radio for recharging or replacement, press the release button (see illustration below) and then rotate the battery upward to the approximate point shown and withdrawn it from chassis.



## RECHARGING

**WARNING:** Do not incinerate a battery pack because it may explode. Also, do not short circuit the terminals because the battery pack and the object causing the short may become very hot. Do not disassemble or modify a battery pack.

If the battery is recharged while attached to the radio, be sure to turn radio power off. If power is left on, the battery will begin to slowly discharge when the charger enters the trickle mode (indicated by a green indicator). This occurs because the charge current in this mode is less than standby radio current. Power should also be turned off to prevent charger damage (see Caution which follows). **CAUTION:** Do not transmit in close proximity to the charger because charger damage may result. Note that transmissions may occur automatically in the trunked modes.

When the battery fails to hold a charge or provides only a very short operating time, it must be replaced with a new unit. A fully charged battery provides approximately 13 hours of service before recharging is required. This time may be less if more than 5% of the time is spent transmitting or in the unscelched receive mode, or if the battery is not fully charged or its capacity has deteriorated. Dispose of the nickel metal-hydride (NiMH) battery pack used in this radio in accordance with local waste regulations.

# QUICK REFERENCE GUIDE

## 5100 Series

ANALOG/DIGITAL PORTABLE

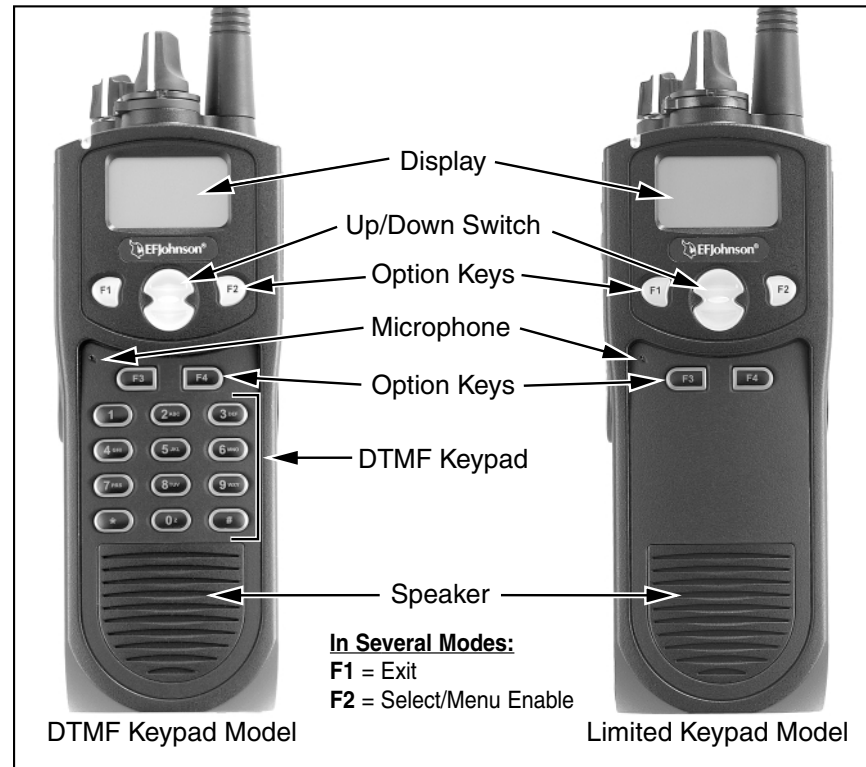
## 5100 SERIES PORTABLE RADIO

- APCO Project 25
  - Conventional
  - Trunked
- SMARTNET® / SmartZone®
- Analog FM Conventional

VHF  
UHF  
800 MHz



## FRONT PANEL CONTROLS



**Microphone**—The location of the microphone is shown above. For best results, hold the transceiver 2-3 inches from your mouth and speak at a normal conversational level.

**Display**—A graphical LCD (Liquid Crystal Display).

**Up/Down Button**—Selects zones when multiple zones are programmed. Also provides up/down select in other modes such as the menu mode. Pressing the upper part of the button increases the selected number and pressing the lower part decreases the selected number.

**F1**—Functions as a Back and Exit button in various modes such as the Menu Mode. If Menu Mode is not used, this is a programmable option button.

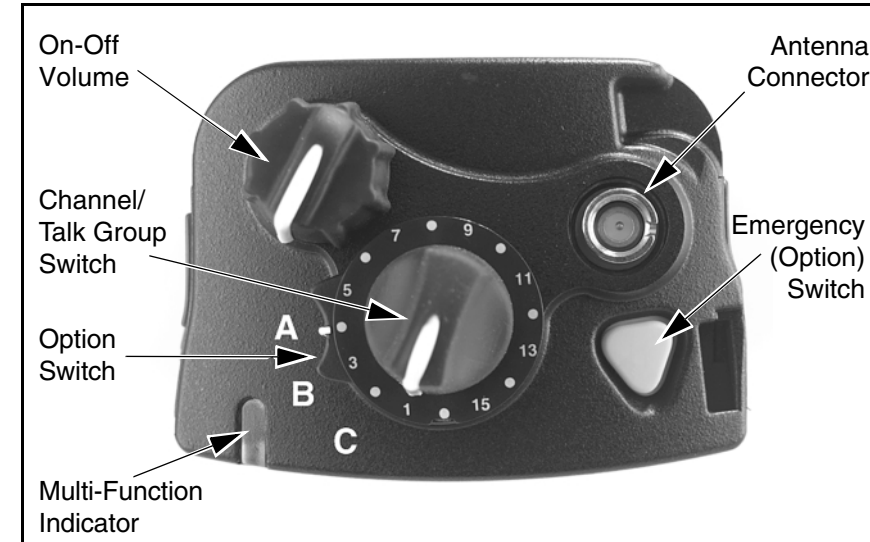
**F2**—Selects the Menu Mode and functions as an Enter button. If Menu Mode is not used, this is a programmable option button.

**F3, F4**—Programmable option buttons.

**DTMF Keypad**—The full keypad DTMF models include the 0-9, \*, and # keys which are used to dial telephone, unit ID, group ID, and other numbers.

**Speaker**—The speaker is located behind this grill. When a speaker/microphone is used, this speaker is automatically disabled.

## TOP PANEL CONTROLS



**Multi-Function Indicator**—Indicates the following conditions:

**Steady Red**—Transmitter keyed (enabled) by pressing the PTT switch on the side.

**Flashing Red**—Low battery in receive mode.

**Steady Green**—Signal detected in receive mode.

**On-Off/Volume**—Turning the knob clockwise turns power on and sets the volume level. Turning it counter-clockwise to the click turns power off.

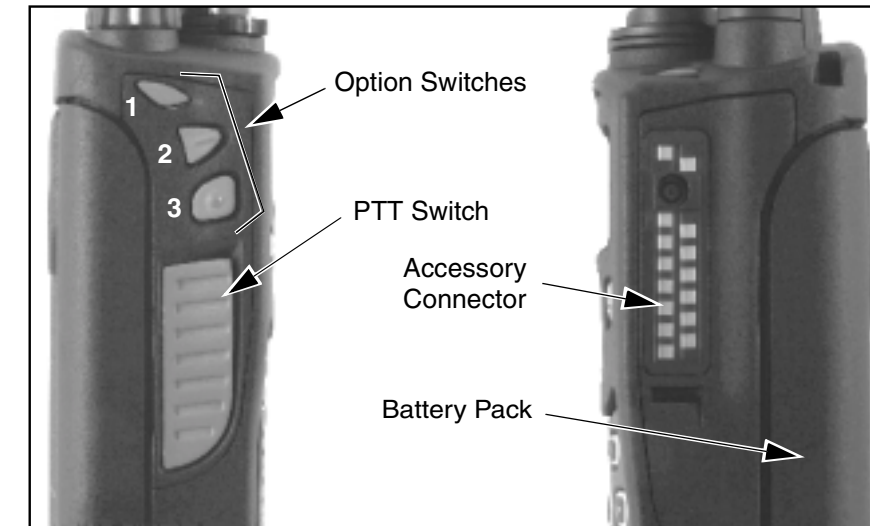
**Channel Switch**—This 16-position switch selects up to 16 channels in the current zone. Some positions may be unprogrammed in which case a tone sounds and “UNPROGRAMD” is displayed. Additional zones can be programmed to allow up to approximately 512 channels to be selected by this switch.

**Rotary Option Switch**—This is a three-position switch that can be programmed to control an option. The “A” position is “on” and the “B” and “C” positions are “off”. If this switch is programmed to select zones, “A” selects Zone 1, “B” Zone 2, and “C” Zone 3, if applicable.

**Antenna Connector**—Connection point for the antenna. Make sure the antenna is tight before using the radio.

**Emergency Switch**—This button can be programmed as an Emergency switch or for other functions. If used as an emergency switch, consult your system operator to determine how it is used in your radio system.

## SIDE CONTROLS



**PTT (Push-To-Talk) Switch**—This switch is pressed to turn the transmitter on so you can talk and then released to listen. Transmitting is indicated when the top panel indicator is red.

**Option Switches 1, 2, and 3**—Each of these switches can be system operator programmed to control a specific function.

**Battery**—Refer to “Battery Removal/Installation” for more information.

**Accessory Connector**—Connection point for optional accessories such as a speaker/microphone or earphone. Refer to “Accessory Installation” for more information.

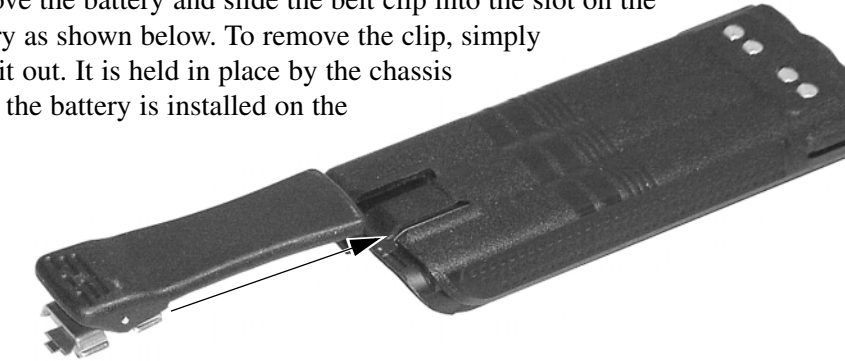
## ZONE AND CHANNEL SELECT

**Zone Select**—The Up/Down switch is used to change the zone when not in special modes such as the menu mode. Press the upper part of this switch to select the next higher number and press the lower part to select the next lower number. After the highest programmed zone is displayed, wrap-around to the lowest programmed zone occurs and vice versa.

**Channel Select**—Channels are selected by the rotary 16-position selector switch on the top panel. The selected channel number and alias are indicated in the display. When an unprogrammed channel is selected, “UNPROGRAMD” is displayed and a tone sounds (if tones are enabled).

## BELT CLIP INSTALLATION

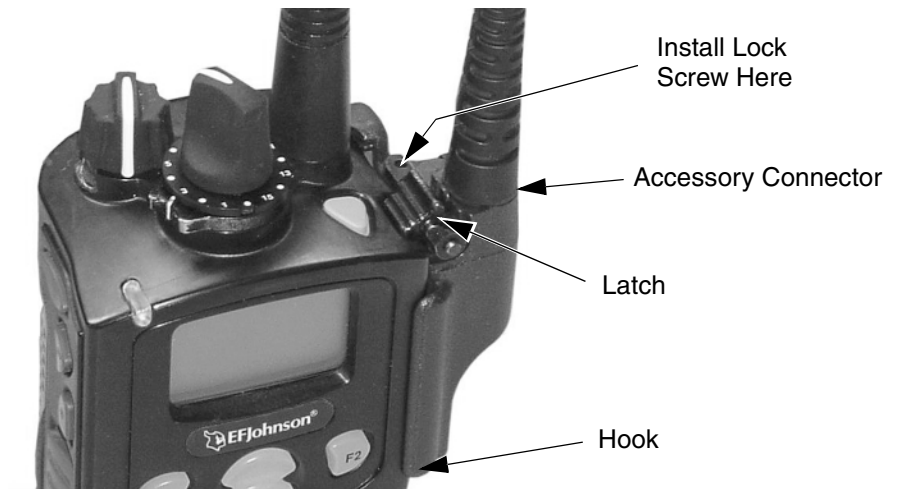
Remove the battery and slide the belt clip into the slot on the battery as shown below. To remove the clip, simply slide it out. It is held in place by the chassis when the battery is installed on the radio.



## ACCESSORY INSTALLATION

To connect an accessory such as a speaker-microphone to the transceiver, proceed as follows:

1. Remove the protective cover over the accessory jack on the side of the transceiver.
2. Insert the hook on the lower end of the accessory connector into the slot on the side of the transceiver.
3. Rotate the latch open, press the connector against the transceiver, and then release the latch to lock the connector in place.
4. Install the included locking screw in the latch tab in the location shown.



## OPERATING MANUAL

A complete operating manual on a CD-ROM is available for this radio. Contact your system operator to obtain this manual.