### Basic Operation:

1. Power on the radio by pressing the yellow **Power** button (1).
2. Adjust Volume level by turning the **Volume** knob (2) clockwise to increase volume, counterclockwise to decrease volume.
3. Adjust the **Squelch** setting:
   a. Press and release the **Squelch** key (9). You should see a **SQL** icon on the left side of the display.
   b. Under the **SQL** icon is a two digit number indicating the **Squelch Level**. The Squelch level may be adjusted anywhere between 0 (lowest setting) and 20.
   c. Adjust the Squelch Level by rotating the main **Dial** (3). Start at the lowest Squelch Level and rotate clockwise until there is no noise from the speaker.
   d. To select and store the Squelch Level, press and release the **FUNC** key (4).
4. Most frequencies are pre-programmed into the radio’s memory channels. To access the memory channels, press and release the **V/M** button (5).
   a. An **M** icon will appear on the left side of the display to indicate the radio is in **Memory Mode**. Below the M is the Memory **Channel** number.
   b. The display shows the **Frequency** that the radio is tuned to for that memory location. There may be additional information indicating repeater offset and CTCSS Tone for repeater operation appearing on the display.
   c. To select a different **Memory Channel**, rotate the **Dial** (3) clockwise to increase the channel number, counterclockwise to decrease the channel number. Using your frequency list, find the frequency that you will be using by scrolling through the Memory Channels.
   i. If the Frequency that you will be using is not stored in one of the Memory Locations, go to “Basic VFO Mode”.
5. When you have found the frequency desired in one of the pre-programmed channels: to transmit press and hold the **Push to Talk** button (11) on the **Microphone** (10). Release the Push to Talk button to receive.
Basic VFO Mode for Repeater or SIMPLEX Operation

Note that VFO Mode is the default mode upon power-up of the radio.

If the repeater that you desire is not pre-programmed into the radio, you may use the VFO Mode to tune to the desired repeater. For **Repeater** operation, a few key pieces of information are required:

- **Repeater Output Frequency** (e.g. 146.82)
- **Repeater Offset and Direction** (e.g. –0.600MHz)
- **CTCSS or PL Tone** (e.g. 103.5)

For **Simplex** operation, the only information required is the desired **Simplex Frequency**.

If you do not have this information – **STOP** -- and try to obtain the information. If you do have this information, you may program the radio in VFO mode as follows:

1. Verify the radio is in VFO mode by checking that the memory mode **M** icon and **Channel Number** are not visible on the left side of the display.
   a. If the radio is in Memory Mode, press and release the **V/M** key (5) until the **M** and **Channel Number** disappear from the display. It may take several presses of the key to get into VFO mode.

2. Rotate the main **Dial** (3) clockwise to increase the frequency, counterclockwise to decrease the frequency. Continue rotating the **Dial** (3) until you get to the desired **repeater output frequency** or **SIMPLEX frequency**.

3. Set the **Repeater Offset and Direction** or set to **SIMPLEX**:
   a. Press and release the **Function** key (4). You should see an **F** icon in the display.
   b. Press and release the **MHz/Shift** key (6). The display will show the offset frequency and direction; the default is –0.600MHz, as shown below:

   - **Offset Direction**
   - **Offset Frequency**

   c. For **REPEATER** operation:
      i. To change the offset direction (from negative “-” to positive “+”), press the **MHz/Shift** key (6) until the display shows the correct offset direction.
         1. Note the standard frequency offset for 2 Meter repeaters is 0.600MHz. You should not have to adjust the **offset frequency**, only the **direction**.
   d. For **SIMPLEX** operation:
      i. To change the offset direction (from the default setting of negative “-” to **simplex**), press the **MHz/Shift** key (6) repeatedly until the display shows no offset icon (there should be no “-“ or “+” in the display).
   e. Once the correct **Offset Direction** appears in the display, press and release the **Squelch** key (9) to save the setting in VFO mode. The display will return to the frequency.

4. For **Repeater Operation** only, set the **Repeater CTCSS Tone**:
   a. Press and release the **TS/DCS** key (7) until only the **T** is displayed. The display will show the current settings, as follows:

   - **The Original status**
   - **T**
   - **TS/QO**
   - **DCS 023**

   b. With the **T** icon on the display only, rotate the **Dial** (3) until the desired **CTCSS Tone** is displayed (e.g. 103.5).
   c. Once the correct **Tone** appears in the display, press and release the **Squelch** key (9) to save the setting in VFO mode. The display will return to the frequency.

6. The transmit **Power Level** may be set to Low, Medium, or High as follows:
   a. Press and release the **FUNC** key (4).
   b. Press the **Power Level/CALL** key (8) to change the power level; each time you press the **Power Level/CALL** key (8) a different setting will appear. **Lo** will appear in the display for Low Power; **Mi** will appear for MID power; and no power indication icon will indicate High power.
   c. Press and release the **FUNC** key (4) to save the Power Level setting.

7. The radio is now programmed in VFO mode to use the desired repeater. To transmit press and hold the **Push to Talk** button (11) on the **Microphone** (10). Release the Push to Talk button to receive.