

Yaesu FT-897D Basic User Instructions for Setting Up FM VHF/UHF Repeater Channels

1. Menu Selection

- a. **Multi Function Rows**
 - i. **To activate: momentarily press “F” key**
 - ii. **To deactivate: momentarily press “F” key**
- b. **Menu Mode**
 - i. **To activate: press and hold “F” key**
 - ii. **To deactivate: press and hold “F” key**

2. Manually Programming an FM VHF Repeater Channel

- a. Setting the **“BAND”**: press “UP” or “DOWN” keys as required to achieve the required frequency range
i.e. 146.850 (for 2 m FM VHF)
- b. Setting the **“MODE”**: press the “<” or “>” keys to select “FM”
- c. Setting **frequency**
 - i. Switch to VFO mode by momentarily pressing the V/M key once or twice so that VFOa or VFOb is shown in the upper left corner of the display.
 - ii. **Rotate the “MEM/VFO/CH” knob** to the desired frequency. Remember that there are three speeds to change the frequency: (per rotary click)
 - 1. 0.005 MHz per click
 - 2. 0.010 MHz per click: momentarily press the “POWER” key. While in this accelerated mode, an animated “running man” icon is happening in the lower right corner of the display. Press POWER key again momentarily to cancel this medium accelerated mode.
 - 3. 1.000 MHz per click: momentarily press the “MEM/VFO/CH” knob. While in this accelerated mode, the whole(integral) frequency value will blink. Press the “MEM/VFO/CH” knob momentarily to exit this fast accelerated mode.
... OR ...
 - iii. Using the **Remote Microphone** (MH-59), enter the desired frequency in the following sequence:
e.g. **ENT 1 4 6 D 8 5 0 ENT**
... OR ...
 - iv. Using the **remote mic, rotate the wheel** on the right side. See above for accelerating the frequency increments.
... OR ...
 - v. Using the **remote mic, press the “UP” and “DOWN” buttons**. Remember that the speed of the increment can be accelerated by momentarily pressing the “POWER” key. While in accelerated mode, an animated “running man” icon is happening in the lower right corner of the display.
- d. Setting **frequency offset**
 - i. Press and hold “F” key to activate “Menu” mode.
 - ii. Rotate “MEM/VFO/CH” knob to menu item **[RPT SHIFT] {No 076}**
 - iii. **Rotate “DIAL” knob** to desired frequency change e.g. 0.60 MHz
 - iv. Press and hold “F” key to save and deactivate “Menu” mode
- e. Setting **offset direction**
 - i. Momentarily press “F” key to activate “Multi Function Row” menu mode

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- ii. Rotate “MEM/VFO/CH” knob to select “**MFd**”.
 - iii. Momentarily press “F” key to deactivate “Multi Function Row” menu mode
 - iv. **Sequentially momentarily press Multi Function “A”** until the desired shift direction is displayed in the upper left corner of the display i.e. “+” or “-” or “ ”.
- f. Setting sub audible **tones** for controlled access
- i. Press and hold “F” key to activate “Menu” mode.
 - ii. Rotate “MEM/VFO/CH” knob to menu item **[TONE FREQ] {No 083}**
 - iii. Rotate “**DIAL**” knob to desired sub audible frequency e.g. 110.9 Hz
 - iv. Press and hold “F” key to save and deactivate “Menu” mode
- g. Set type of tones i.e. CTCSS or DCS (split tones not covered here)
- i. Momentarily press “F” key to activate “Multi Function Row” menu mode
 - ii. Rotate “MEM/VFO/CH” knob to select “MFe”.
 - iii. Momentarily press “F” key to deactivate “Multi Function Row” menu mode
 - iv. Sequentially momentarily press Multi Function “A” until the desired tone is displayed in the upper left corner of the display. IN this case, select “TEN” for “tone encoding”
- h. Find an available channel
- i. Saving to a channel
- i. Momentarily press “F” key to activate “Multi Function Row” menu mode
 - ii. Rotate “MEM/VFO/CH” knob to select “MFb”
 - iii. Momentarily press [A][MW] key to activate channel selection mode.
 - iv. Rotate “MEM/VFO/CH” knob to select channel number.
 - v. Press and hold MW key until beep which confirms repeater programming is stored into that channel number.
- j. Labeling memory (in channel memory mode)
- i. If necessary, press the “V/M” key to get to the Memory mode
 - ii. Rotate “MEM/VFO/CH” knob to select channel number.
 - iii. Press and hold the “F” key to activate “Menu” mode
 - iv. Rotate “MEM/VFO/CH” knob to select “[No-056][MEM TAG]”.
 - v. Press the “MEM/VFO/CH” knob to initiate label programming.
 - vi.

3. Changing Dial Speed for Changing Frequency

- a. To accelerate:
 - i. Momentarily press the POWER key. Accelerated mode will be indicated by animated “running man” icon in lower right corner of display.
- b. To deactivate acceleration:
 - i. Momentarily press the POWER key. Slow mode will be indicated by absence of “running man” icon.

4. Scanning for Programmed Channels in Memory Mode

- a. How to start scanning:
 - i. Set squelch so background noise is silenced
 - ii. Press “F” key momentarily to activate “Multi Function Row” menu mode.
 - iii. Rotate “MEM/VFO/CH” knob to menu item “g”.

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- iv. Momentarily press [A][SCN] key to start scan. By default, scan progresses sequentially upward through pre-set channels. Rotate either the “DIAL” or “MEM/VFO/CH” knob to change scan direction i.e. clockwise for upward scan or counter clockwise for downward scan through pre-set channels.
- b. How to stop scanning:
 - i. Momentarily press [SCN] key or ...
 - ii. Momentarily press “PTT” key.
- c. How to set “scan resume” choices:
 - i. Press and hold “F” key to activate “Menu” mode
 - ii. Rotate “MEM/VFO/CH” knob to select “Menu Mode No-077 [Scan Mode]”
 - iii. Rotate the “DIAL” knob to select the desired “Scan Resume” mode
 - 1. TIME – radio pauses for five seconds then resumes scan
 - a. Use “Menu Mode” item “No-078 [SCAN RESUME]” to change pause time from one to ten seconds.
 - 2. BUSY - radio stays on that channel until no further traffic on that channel, then resumes scan within one second
 - 3. STOP – radio stops on that busy channel. Restart scan by pressing [A][SCN] button on “Multi Function menu”
 - iv. Press and hold the “F” key to exit the “Menu” mode
- d. How to skip a channel in the scan mode:
 - i. Rotate “MEM/VFO/CH” knob to the desired pre-set memory channel
 - ii. Press “F” key momentarily to activate Multi Function Rows
 - iii. Rotate “MEM/VFO/CH” knob to menu item “g” “[MW SKIP TAG]”
 - iv. Momentarily press “[B][SKIP]” key, resulting in the memory channel number in the upper left of the display to show a small dot replacing the hyphen. Press the “[SKIP]” key again to remove the dot and reinstate the hyphen. The dot confirms that particular channel will not be included in the scan loop.
 - v. Press the “F” key again, momentarily, to cancel the “Multi Function” menu mode.
 - vi. Rotate the “MEM/VFO/CH” knob to the next desired pre-set memory channel to be excluded from the scan mode, and repeat the steps using the “Multi Function” menu.

5. Remote Mic Switching to Another Channel

- a. Using the Remote Microphone “MH-59”, enter the desired channel in the following sequence: e.g.
 - i. ENT 25 *
 - ... OR ...
 - ii. rotate dial on right side (momentarily press “POWER” button to accelerate)
 - ... OR ...
 - iii. press “UP” or “DOWN” keys atop the microphone (momentarily press “POWER” button to accelerate)

6. Remote Microphone Switching to Another Frequency

- a. Using the Remote Microphone “MH-59”, enter the desired frequency in the following sequence: e.g.
 - i. ENT 1 4 6 D 8 5 0 ENT
 - ... OR ...

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- ii. rotate dial on right side. Remember that the speed of the increment can be accelerated by momentarily pressing the "POWER" key. While in accelerated mode, an animated "running man" icon is happening in the lower right corner of the display.
... OR ...
- iii. press "UP" or "DOWN" keys atop the microphone . Remember that the speed of the increment can be accelerated by momentarily pressing the "POWER" key. While in accelerated mode, an animated "running man" icon is happening in the lower right corner of the display.