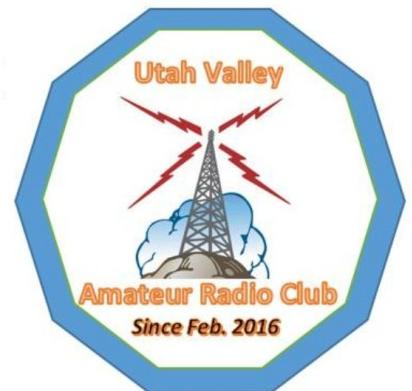# Brass Tacks

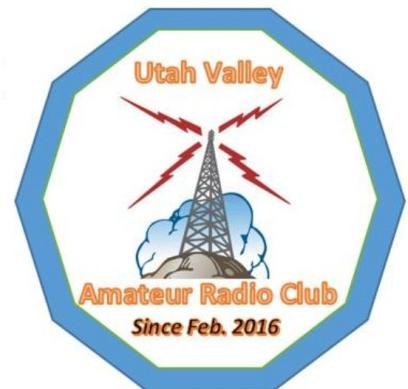*An in-depth look at a radio-related topic*

The Baofeng menu

The infamous yet inescapable menu of the Baofeng HT (handheld transceiver) has stumped both ham radio operators and preppers since the dawn of amateur radio, give or take. Not only is the menu system somewhat non-intuitive (some say *user-hostile*), but some settings don't even apply to amateur radio, and so can easily make your little radio underperform or even malfunction, if you go messing with things you don't understand.

Let's see whether we can take some of the mystery out of that little investment of yours. The good news is that the menu system of *most Baofeng HTs work identically, allowing a seamless transition from one model to another. (*5R, 6R, 82, 5XP, GT-3, GT-5, F8, F9, plus BTech UV-5X3) Some of this material is taken from a document by Jim Unroe KC9HI. The values under **Recomm** represent recommended settings. Colored boxes are explained at the end.

Num	Name	Default	Recomm	Description
0	SQL	5	3	Receiver squelch level
1	STEP	2.5	5.0	Manual frequency increment — dictates how many kHz your frequency changes when you change it by one (up or down) arrow increment
2	TXP	HIGH	HIGH	Transmit power level
3	SAVE	3	OFF	To save battery life while listening, "2" = "listen for 0.2 sec, then disable for 0.22 sec", "3" = "listen for 0.2 sec, then disable for 0.33 sec", etc.
4	VOX	OFF	OFF	Allows you to transmit without pressing the PTT
5	WN	WIDE	WIDE	Transmit bandwidth (WIDE / NARR) — Utah requires wide-band operation for all its repeaters
6	ABR	5	5	Display illumination time (seconds)
7	TDR	ON	ON	Transceiver dual reception (dual-watch) — allows you to listen to two frequencies simultaneously
8	BEEP	ON	OFF	Audible beep when a key is pressed
9	TOT	60	120	Timeout timer — the radio will automatically stop transmitting after this many seconds, if you press and hold the PTT this long
10	R-DCS	OFF	OFF	Receiver digital tone (digital version of 11)
11	R-CTCS	OFF	OFF	Receiver tone — tone your radio expects from others, to allow you to hear an incoming transmission
12	T-DCS	OFF	OFF	Transmitter digital tone (digital version of 13)
13	T-CTCS	OFF	100.0HZ	Transmitter tone — tone your radio transmits, to enable ("open") the repeater

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continued

Num	Name	Default	Recomm	Description
14	VOICE	CHI	ENG	Voice prompt language
15	ANI-ID	80808	N/A	Automatic ID — not applicable to amateur
16	DTMFST	DT+ANI	DT+ANI	Allows you to send DTMF tones
17	S-CODE	1	OFF	DTMF tone to send — not applicable to amateur
18	SC-REV	TO	TO	Scan resume method — stops on detected signal, then TO = resumes after 5 sec / CO = resumes after signal disappears / SE = does not resume
19	PTT-ID	OFF	OFF	When to send PTT ID — not applicable to amateur
20	PTT-LT	5	0	PTT ID sending delay — not applicable to amateur
21	MDF-A	NAME	NAME	Channel Mode upper display type — FREQ = displays the frequency / NAME = displays the channel name / CHAN = displays the channel number
22	MDF-B	FREQ	NAME	Channel mode lower display type — ditto
23	BCL	OFF	OFF	Busy lockout — prevents your radio from transmitting ("doubling") if the frequency is already in use
24	AUTOLK	OFF	OFF	Locks the keypad if your radio has not been used for eight seconds
25	SFT-D	+/−	+/−	Repeater shift direction — pressing the PTT will result in transmitting OFFSET MHz (+ = greater than / − = less than) the displayed frequency
26	OFFSET	OFF	000.600	Repeater offset amount in MHz — difference between the receive and transmit frequencies
27	MEM-CH	CH-000	CH-000	Stores the frequency and accompanying information (offset, shift direction, tone, step, squelch level, power level, bandwidth) shown in Frequency Mode into the specified empty channel number
28	DEL-CH	CH-000	CH-000	Deletes the frequency and accompanying information from the specified channel
29	WT-LED	PURPLE	PURPLE	Display backlight color when nothing is happening
30	RX-LED	BLUE	BLUE	Display backlight color during receive
31	TX-LED	ORANGE	ORANGE	Display backlight color during transmit
32	AL-MOD	TONE	SITE	Alarm mode — not applicable to amateur
33	BAND	VHF/UHF	VHF/UHF	Currently selected band — ignore

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continued

34	TDR-AB	OFF	OFF	Force this (upper or lower) display to become the "active" frequency following transmit while in dual-watch (TDR — menu 7) mode — OFF = return to the display your radio was already on / A = always return to the upper / B = always return to the lower
35	STE	OFF	OFF	Squelch-tail elimination (between your HT and theirs) — not applicable to amateur
36	RP-STE	OFF	OFF	Squelch tail elimination (between your HT and the repeater) — not applicable to amateur
37	RPT-RL	OFF	OFF	Repeater squelch-tail elimination delay — not applicable to amateur
38	PONMSG	MSG	MSG	Power-on message — displays a two-line greeting at startup
39	ROGER	OFF	OFF	"Roger" beep enable — not applicable to amateur
40	RESET	ALL	ALL/VFO	Restores all settings to their defaults — VFO = returns all settings to their factory default values / ALL = does the same, plus erases all memories, then stores 136.025 in channel 0 and 470.625 in channel 127
41	R-TONE	1750hz	1750hz	Repeater burst tone — not applicable to US repeaters (needed in Europe, in case you travel there)
33	SC-ADD	ON	ON	BTech UV-5X3 only — add this channel to the "scan" list
40	D-ANI	OFF	OFF	BTech UV-5X3 only — decodes incoming DTMF tones — not applicable to amateur
41	DTMF-G	20	OFF	BTech UV-5X3 only — DTMF tone audio level

🟨	Important setting for amateur radio
🟩	Setting of personal preference
⬜	Can only be set programmatically
🟪	One-time use (does not remain set)

As you can see, some of the settings can only be modified programmatically; that is, by computer. You can use the free CHIRP to program most Baofeng HTs, but you can also purchase the RT Systems software for some of the Baofeng models as well. At any rate, we hope this little chart can take some of the guesswork out of the Baofeng menu system, especially if you attempt to program your radio manually.