

Reference for UV-5R Menus

by Jim Unroe - KC9HI

29-December-2012

(send comments, suggestions or corrections to UV-5R@KC9HI.net)

Menu Number / Short Name	Long Name / Description / Settings / Notes	Global	MR/ Channel Mode	VFO/ Frequency Mode	Separate VFO A & B Settings	Stored on a Per Channel Basis
0 SQL	Carrier Squelch	✓				
	Mutes the speaker of the transceiver in the absence of a strong signal. VHF squelch is either OFF or ON. UHF squelch is either OFF or one of 9 levels. The higher the level, the stronger the signal must be to un-mute the speaker.					
	Settings: 0 - 9 Default: 5					
	VHF: 0 = Open 1 - 9 ≈ 0.10µV (firmware bug)					
	UHF: 0 = Open 1 ≈ 0.10µV 2 ≈ 0.12µV 3 ≈ 0.13µV 4 ≈ 0.15µV 5 ≈ 0.18µV 6 ≈ 0.20µV 7 ≈ 0.23µV 8 ≈ 0.26µV 9 ≈ 0.30µV Measurements were performed by Steve WB8GRS					
Note: The CALL button (FM or ALARM) is not functional when menu 0 = 0						
1 STEP	Frequency Step (KHz)					
	Selects the amount of frequency change in VFO/Frequency mode when scanning or pressing the [▲] or [▼] keys.					
	Settings: (≤ BFB290) 2.5K[0] 5.0K[1] 6.25K[2] 10.0K[3] 12.5K[4] 25.0K[5] Default: 2.5K					
Settings: (≥ BFB291) 2.5K[0] 5.0K[1] 6.25K[2] 10.0K[3] 12.5K[4] 20.0K[5] 25.0K[6] 50.0K[7] Default: 2.5K						
2 TXP	Transmit Power		RO			
	Selects between HIGH and LOW transmitter power when in VFO/Frequency mode. Use the minimum transmitter power necessary to carry out the desired communications.					
	Settings: HIGH[0] LOW[1] Default: HIGH					
	HIGH: ≈ 4 watts					
	LOW: ≈ 1 watt					
Note: When TXP is set to LOW, an 'L' is indicated in the status display						
Note: The power level can be toggled in MR/Channel mode by tapping the [#_P_O] key (may require menu 7 = OFF - see menu 7)						
3 SAVE	Battery Save	✓				
	Selects the ratio of sleep cycles to awake cycles (1:1, 2:1, 3:1, 4:1). The higher the number the longer the battery lasts. When enabled, a word or two might be missed when the frequency being monitored becomes active.					
Settings: OFF[0] 1 2 3 4 Default: 3						
4 VOX	Voice Operated Transmission	✓				
	When enabled it is not necessary to push the [PTT] button on the transceiver. Adjust the gain level to an appropriate sensitivity to allow smooth transmission.					
	Settings: OFF[0] 1 2 3 4 5 6 7 8 9 10 Default: OFF					
Note: When VOX is not set to OFF, 'VOX' is indicated in the status display						
Note: Level setting may not work properly (firmware bug?)						
5 WN	Wideband / Narrowband		RO			
	Wideband (25 kHz bandwidth) or narrowband (12.5 kHz bandwidth).					
	Settings: WIDE[0] NARR[1] Default: WIDE					
	Emission: 16K Φ F3E / 11K Φ F3E (W/N)					
Deviation: ≤ ±5 kHz / ≤ ±2.5 kHz (W/N)						
Note: When WN is set to NAR, an 'N' is indicated in the status display						
6 ABR	Backlight Timeout (seconds)	✓				
	Settings: (≤ BFB291) OFF[0] 1 2 3 4 5 Default: 5					
	Settings: (≥ BFB293) OFF[0] 1 2 3 4 5 6 7 8 9 10 Default: 5					
	Note: The ABR setting also sets the delay before the radio returns to FM broadcast reception after being interrupted					
	Note: ABR can be set to 24 using CHIRP					

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7 TDR	Dual Watch / Dual Reception Monitor [A] and [B] at the same time. The display with the most recent activity ([A] or [B]) becomes the selected display.	✓				
	Settings: OFF[0] ON[1] Default: ON					
	Note: When TDR is set to ON, an 'S' is indicated in the status display					
	Note: The selected display can be forced back to [A] or [B] using menu 34 (≤ BFB251) Enabling TDR disables the ability to enter 'reverse' mode by tapping the [*SCAN] key					
	Note: (≤ BFB251) Enabling TDR disables the ability to toggle the power level in MR mode by tapping the [#P/O] key					
	Note: TDR is inhibited while scanning is in operation					
8 BEEP	Keypad Beep Allows audible confirmation of a key press	✓				
	Settings: OFF[0] ON[1] Default: ON					
9 TOT	Transmission Timer (seconds) This feature provides a safety switch which limits transmission time to a programmed value. This will promote battery conservation by not allowing you to make excessively-long transmissions, and in the event of a stuck PTT switch (perhaps if the radio or a Speaker/Mic is wedged between car seats) it can prevent interference to other users as well as battery depletion.	✓				
	Settings: 15[0] - 600[39] in 15 second steps (set TOT Table) Default: 60					
	Note: (TIMEOUT-15)/15=[n]					
	Note: The red TX LED begins to flash 10 seconds before the timeout limit is reached					
10 R-DCS	Digital Coded Squelch (DCS) - Receive/Decode Mutes the speaker of the transceiver in the absence a specific low level digital signal. If the station you are listening to does not transmit this specific signal, you will not hear anything.		RO	✓	✓	✓
	Settings: OFF[0] see DCS Table Default: OFF					
	Note: When R-DCS is not set to OFF, 'DCS' is indicated to the left of the upper channel display					
	Note: Setting R-DCS sets menu 11 to OFF					
	Note: Recommended setting is OFF					
11 R-CTCS	Continuous Tone Coded Squelch System (CTCSS) - Receive/Decode Mutes the speaker of the transceiver in the absence of a specific and continuous sub-audible signal. If the station you are listening to does not transmit this specific and continuous signal, you will not hear anything.		RO	✓	✓	✓
	Settings: OFF[0] see CTCSS Table Default: OFF					
	Note: When R-CTCS is not set to OFF, 'CT' is indicated to the left of the upper channel display					
	Note: (R-CTCS ≤ 136.5 Hz) Scanning never stops regardless of the correct CTCSS tone being received					
	Note: (R-CTCS ≥ 141.3 Hz) Scanning stops and squelch opens regardless of the actual CTCSS tone being received					
	Note: R-CTCS works properly (selectively) while not scanning					
	Note: Setting R-CTCS sets menu 10 to OFF					
	Note: Recommended setting is OFF					

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12 T-DCS	Digital Coded Squelch (DCS) - Transmit/Encode Transmits a specific low level digital signal to unlock the squelch of a distant receiver (usually a repeater).		RO	✓	✓	✓
	Settings: OFF[0] see DCS Table Default: OFF					
	Note: Setting T-DCS sets menu 13 to OFF					
	Note: When T-DCS is not set to OFF, 'DCS' is indicated to the left of the upper channel display (requires TX or 'reverse' mode)					
13 T-CTCS	Continuous Tone Coded Squelch System (CTCSS) - Transmit/Encode Transmits a specific and continuous sub-audible signal to unlock the squelch of a distant receiver (usually a repeater).		RO	✓	✓	✓
	Settings: OFF[0] see CTCSS Table Default: OFF					
	Note: Setting T-CTCS sets menu 12 to OFF					
	Note: When T-CTCS is not set to OFF, 'CT' is indicated to the left of the upper channel display (requires TX or 'reverse' mode)					
14 VOICE	Voice Prompt Allows audible voice confirmation of a key press	✓				
	Settings: (≤ BFB238) OFF[0] ON[1] Default: ON					
	Settings: (≥ BFB251) OFF[0] ENG[1] CHI[2] Default: CHI					
	Note: Not all voice prompts are easily understandable. Not all key presses have a voice prompt.					
15 ANI-ID	Automatic Number Identification Displays the ANI code that has been set by software. This menu can not be used to change it. The ANI-ID is sent when the alarm is activated and menu 32 = CODE	RO				
16 DTMFST	DTMF Side Tones Determines when DTMF Side Tones can be heard from the transceiver speaker.	✓				
	Settings: OFF[0] DT-ST[1] ANI-ST[2] DT+ANI[3] Default: DT+ANI					
	OFF: No DTMF Side Tones are heard					
	DT-ST: Side Tones are heard only from manually keyed DTMF codes					
	ANI-ST: Side Tones are heard only from automatically keyed DTMF codes					
	DT+ANI: All DTMF Side Tones are heard					
	Note: Requires the transceiver to be in transmit mode.					
	Note: Recommended setting is DT+ANI					
	Note: (≤ BFB231) [MENU]=A, [▲]=C, [▼]=B, [EXIT]=D (†)					
	Note: (≥ BFB238) [MENU]=A, [▲]=B, [▼]=C, [EXIT]=D (†)					
	(†) The Side Tone heard for 'D' is '0' (zero) but 'D' is sent over-the-air					
17 S-CODE	PTT-ID DTMF Code Selection Selects 1 of 15 DTMF codes. The DTMF codes are programmed with software and are up to 5 digits each.		RO	✓	✓	✓
	Settings: 1[0] 2[1] 3[2] 4[3] 5[4] 6[5] 7[6] 8[9] 9[8] 10[9] 11[10] 12[11] 13[12] 14[13] 15[14] Default: 1					
	Note: Menu 19 must be enabled for an S-CODE to be transmitted.					
18 SC-REV	Scanning Resume Method	✓				
	Settings: TO[0] CO[1] SE[2] Default: TO					
	TO: Time Operation - scanning will resume after a fixed time has passed					
	CO: Carrier Operation - scanning will resume after the active signal disappears					
	SE: Search Operation - scanning will not resume					
19 PTT-ID	When to Send PTT-ID		RO	✓		✓
	Settings: OFF[0] BOT[1] EOT[2] BOTH[3] Default: OFF					
	OFF: No ID is sent					
	BOT: The selected S-CODE is sent at the Beginning of Transmission					
	EOT: The selected S-CODE is sent at the End of Transmission					
	BOTH: The selected S-CODE is sent at the BOT and the EOT					
	Note: Select S-CODE using menu 17					
Note: Recommended setting is OFF						

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20 PTT-LT	PTT-ID Delay (milliseconds)	✓					
	Settings: (≤ BFB290) 0 - 30						Default: 5
	Settings: (≥ BFB291) 0 - 50						Default: 5
	Note: Requires menu 19 to be enabled						
21 MDF-A	[A] MR/Channel Mode Display Format		✓				
	Settings: CH[0] NAME[1] FREQ[2]						Default: NAME
	CH: Displays the channel number						
	NAME: Displays the channel name. Names must be entered using software. A channel without an assigned name will have the channel number displayed						
FREQ: Displays programmed Frequency							
22 MDF-B	[B] MR/Channel Mode Display Format		✓				
	Settings: CH[0] NAME[1] FREQ[2]						Default: FREQ
	CH: Displays the channel number						
	NAME: Displays the channel name. Names must be entered using software. A channel without an assigned name will have the channel number displayed						
FREQ: Displays programmed Frequency							
23 BCL	Busy Channel Lock-Out		RO	✓		✓	
	Disables the [PTT] button on a channel that is already in use. The transceiver will sound a beep tone and will not transmit if the [PTT] button is pressed when a channel is already in use.						
Settings: OFF[0] ON[1]	Default: OFF						
24 AUTOLK	Automatic Keypad Lock	✓					
	When ON, the keypad will be locked if not used in 8 secs. Pressing the [#]O key for 2 seconds will unlock the keypad.						
	Settings: OFF[0] ON[1]						Default: OFF
	Note: When the keypad is locked, a 'O' is indicated in the status display						
Note: The keypad lock only locks the buttons on the front face of the UV-5R. It does not lock the [CALL] button, the [PTT] button or the [MONI] button.							
25 SFT-D	Direction of Frequency Shift		⊖	✓	✓		
	Enables access of repeaters in VFO/Frequency Mode						
	Settings: OFF[0] +[1] -[2]						Default: OFF
	OFF: TX = RX (simplex)						
	+: TX will be shifted higher in frequency than RX						
	-: TX will be shifted lower in frequency than RX						
	Note: When SFT-D is set to +, a '+' is indicated in the status display (VFO/Frequency mode only)						
	Note: When SFT-D is set to -, a '-' is indicated in the status display (VFO/Frequency mode only)						
Note: Used with menu 26 to access repeaters in VFO/Frequency mode (+ and - only)							
Note: SFT-D is not required or used when storing repeater frequencies into channels							
26 OFFSET	Frequency Shift (MHz)	⊖		✓	✓		
	Specifies the difference between the TX and RX frequencies						
	Settings: 00.000 - 69.990 in 10 kHz steps						Default: 00.600
	Note: Used with menu 25 to access repeaters in VFO/Frequency mode						
Note: OFFSET is not required or used when storing repeater frequencies into channels							

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27 MEM-CH	Memory Channel Programming					
	This menu is used to either create new or modify existing channels (0 through 127) so that they can be accessed from MR/Channel Mode. The behavior of menu 27 changes depending on whether the target channel is empty or has been previously programmed (see below).					
	Note: Programming must be done in [A] VFO					
	Empty Target Channel: The RX and TX frequencies of the target channel are set to the [A] VFO frequency. The settings of the following menus are also saved into the target channel. This essentially creates a fully operational simplex channel.					
	Menu 2 - TXP Transmit Power					
	Menu 5 - WN Wideband / Narrowband					
	Menu 10 - R-DCS Digital Coded Squelch (DCS) - Receive/Decode					
	Menu 11 - R-CTCS Continuous Tone Coded Squelch System (CTCSS) - Receive/Decode					
	Menu 12 - T-DCS Digital Coded Squelch (DCS) - Transmit/Encode					
	Menu 13 - T-CTCS Continuous Tone Coded Squelch System (CTCSS) - Transmit/Encode				✓	
	Menu 17 - S-CODE PTT-ID DTMF Code Selection					
	Menu 19 - PTT-ID When to Send PTT-ID					
	Menu 23 - BCL Busy Channel Lockout					
	Previously Programmed Target Channel: The TX frequency of the target channel is set to the [A] VFO frequency. The settings of the following menus are also saved into the target channel. Uses for this can be to update a newly created 'simplex' channel into a 'repeater' channel or a 'cross-band' channel. Another use would be to add, change or remove a TX DCS code or TX CTCSS tone.					
	Menu 12 - T-DCS Digital Coded Squelch (DCS) - Transmit/Encode					
Menu 13 - T-CTCS Continuous Tone Coded Squelch System (CTCSS) - Transmit/Encode						
Note: When the TX frequency differs from RX frequency, a '+-' is indicated in the status display						
Note: It is a good idea to check the above menus prior to using menu 27 to make sure none of them have an unwanted setting that was left over from a previous programming session.						
28 DEL-CH	Delete a Memory Channel					
	This menu is used to delete channels (0 through 127) so that they can either be programmed again or be left empty.	✓				
29 WT-LED	Back Light Color - Standby					
	Settings: OFF[0] BLUE[1] ORANGE[2] PURPLE[3] Default: PURPLE	✓				
30 RX-LED	Back Light Color - Receive					
	Settings: OFF[0] BLUE[1] ORANGE[2] PURPLE[3] Default: BLUE	✓				
31 TX-LED	Back Light Color - Transmit					
	Settings: OFF[0] BLUE[1] ORANGE[2] PURPLE[3] Default: ORANGE	✓				
32 AL-MOD	Alarm Mode					
	Settings: SITE[0] TONE[1] CODE[2] Default: TONE					
	SITE: Sounds alarm through your radio speaker only					
	TONE: Transmits a cycling tone over-the-air					
	CODE: Transmits '119' (911 in reverse?) followed by the ANI code over-the-air					
Note: Recommended setting is OFF... but since that isn't a choice use SITE						

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33 BAND	Band Selection In VFO/Frequency mode, sets [A] or [B] to the VHF or UHF band.		RO	✓	✓	✓
	Settings: VHF[0] UHF[1] Default: VHF					
	Note: When transitioning from VHF to UHF or from UHF to VHF, the selected band's low frequency limit becomes the displayed frequency (the original 'scratch' frequency is lost)					
34 TDR-AB	Dual Watch / Dual Reception Display Priority When enabled, priority is returned the selected display once the signal in the other display disappears.	✓				
	Settings: OFF[0] A[1] B[2] Default: OFF					
	Note: Requires menu 7 to be enabled					
35 STE	Squelch Tail Elimination - Transceiver This function is used eliminate squelch tail noise between UV-5Rs that are communicating directly (no repeater). A short duration 50Hz tone is transmitted when the PTT key is released.	✓				
	Settings: OFF[0] ON[1] Default: ON					
	Note: Set to OFF before communicating through a repeater.					
	Note: Recommended setting is OFF					
36 RP-STE	Squelch Tail Elimination - Repeater This function is used eliminate squelch tail noise when communicating through a repeater.	✓				
	Settings: OFF[0] 1 - 10 Default: 5					
	Note: Requires use of a repeater utilizing this feature.					
	Note: Used with menu 37					
37 RPT-RL	Delay the Tail Tone of Repeater (X100 milliseconds)	✓				
	Settings: OFF[0] 1 - 10 Default: OFF					
	Note: Recommended setting is OFF					
38 PONMSG	Boot Display Controls the behavior of the display when the transceiver is turned on.	✓				
	Settings: FULL[0] MSG[1] Default: FULL					
	FULL: Performs an LCD screen test at power-on					
	MSG: Displays a 2-line power-on message					
39 ROGER	Roger Beep Sends an end-of-transmission tone to indicate to other stations that the transmission has ended.	✓				
	Settings: OFF[0] ON[1] Default: OFF					
	Note: Recommended setting is OFF					
40 RESET	Restore to Default Settings	✓				
	Settings: VFO[0] ALL[1] Default: ALL					
	VFO: Resets all menus to factory default and sets the [A] and [B] VFO frequencies to factory default.					
ALL: Resets all menus to factory default, sets the [A] and [B] VFO frequencies to factory default, erases all channels and programs channel 0 to 136.025 MHz and channel 127 to 470.625 MHz.						

Legend & Definitions

- [A] The top/upper VFO/Channel Display
- [B] The bottom/lower VFO/Channel Display
- RX Receive
- TX Transmit
- PTT Push-to-talk
- RO Read Only
- ✓ Valid
- ⊙ Inhibited
- [n] Numbers in brackets are shortcuts
- YMMV Your Mileage May Vary

Time Out Timer Table (Menu 9)

N°	Seconds	N°	Seconds	N°	Seconds	N°	Seconds
0	15	10	165	20	315	30	465
1	30	11	180	21	330	31	480
2	45	12	195	22	345	32	495
3	60	13	210	23	360	33	510
4	75	14	225	24	375	34	525
5	90	15	240	25	390	35	540
6	105	16	255	26	405	36	555
7	120	17	270	27	420	37	570
8	135	18	285	28	435	38	585
9	150	19	300	29	450	39	600

Note: digits in the 'N°' column are shortcuts

CTCSS Table (Menu 11 & Menu 13)

N°	Tone(Hz)	N°	Tone(Hz)	N°	Tone(Hz)	N°	Tone(Hz)	N°	Tone(Hz)
	67.0		94.8		131.8		171.3		203.5
	69.3		97.4		136.5		173.8		206.5
	71.9		100.0		141.3		177.3		210.7
	74.4		103.5		146.2		179.9		218.1
	77.0		107.2		151.4		183.5		225.7
	79.7		110.9		156.7		186.2		229.1
	82.5		114.8		159.8		189.9		233.6
	85.4		118.8		162.2		192.8		241.8
	88.5		123.0		165.5		196.6		250.3
	91.5		127.3		167.9		199.5		254.1

DCS Table (Menu 10 & Menu 12)

N°	Code	N°	Code	N°	Code	N°	Code	N°	Code
1	D023N	22	D131N	43	D251N	64	D371N	85	D532N
2	D025N	23	D132N	44	D252N	65	D411N	86	D546N
3	D026N	24	D134N	45	D255N	66	D412N	87	D565N
4	D031N	25	D143N	46	D261N	67	D413N	88	D606N
5	D032N	26	D145N	47	D263N	68	D423N	89	D612N
6	D036N	27	D152N	48	D265N	69	D431N	90	D624N
7	D043N	28	D155N	49	D266N	70	D432N	91	D627N
8	D047N	29	D156N	50	D271N	71	D445N	92	D631N
9	D051N	30	D162N	51	D274N	72	D446N	93	D632N
10	D053N	31	D165N	52	D306N	73	D452N	94	D645N
11	D054N	32	D172N	53	D311N	74	D454N	95	D654N
12	D065N	33	D174N	54	D315N	75	D455N	96	D662N
13	D071N	34	D205N	55	D325N	76	D462N	97	D664N
14	D072N	35	D212N	56	D331N	77	D464N	98	D703N
15	D073N	36	D223N	57	D332N	78	D465N	99	D712N
16	D074N	37	D225N	58	D343N	79	D466N	100	D723N
17	D114N	38	D226N	59	D346N	80	D503N	101	D731N
18	D115N	39	D243N	60	D351N	81	D506N	102	D732N
19	D116N	40	D244N	61	D356N	82	D516N	103	D734N
20	D122N	41	D245N	62	D364N	83	D523N	104	D743N
21	D125N	42	D246N	63	D365N	84	D526N	105	D754N

N°	Code	N°	Code	N°	Code	N°	Code	N°	Code
106	D023I	127	D131I		D251I		D371I		D532I
107	D025I	128	D132I		D252I		D411I		D546I
108	D026I	129	D134I		D255I		D412I		D565I
109	D031I	130	D143I		D261I		D413I		D606I
110	D032I	131	D145I		D263I		D423I		D612I
111	D036I	132	D152I		D265I		D431I		D624I
112	D043I	133	D155I		D266I		D432I		D627I
113	D047I	134	D156I		D271I		D445I		D631I
114	D051I	135	D162I		D274I		D446I		D632I
115	D053I	136	D165I		D306I		D452I		D645I
116	D054I	137	D172I		D311I		D454I		D654I
117	D065I		D174I		D315I		D455I		D662I
118	D071I		D205I		D325I		D462I		D664I
119	D072I		D212I		D331I		D464I		D703I
120	D073I		D223I		D332I		D465I		D712I
121	D074I		D225I		D343I		D466I		D723I
122	D114I		D226I		D346I		D503I		D731I
123	D115I		D243I		D351I		D506I		D732I
124	D116I		D244I		D356I		D516I		D734I
125	D122I		D245I		D364I		D523I		D743I
126	D125I		D246I		D365I		D526I		D754I

Note: digits in the 'N°' column are shortcuts