

■ MENU FUNCTION

Menu	Icon	Function	Secondary Menu Icon	Secondary Menu Function Setup and Description
0	TDR	Dual standby function	OFF	Disable TDR (dual standby function)
			ON	Enable TDR (dual standby function)
1	STEP	Channel step	5.00K	In VFO mode, press [UP] or [DOWN] to select desired channel step.
			6.25K	
			10.00K	
			12.50K	
			25.00K	
2	SQL	Squelch level	0,⋯,9	Squelch level 0–9 selective
3	TXP	TX Power	HIGH	High power output
			LOW	Low power output
4	SCR	Voice encryption	OFF	Disable voice encryption
			ON	Enable voice encryption
5	TOT	Time out timer	15,30,⋯,600	Time out timer, 15–600s selective, step is 15s.
6	TOA	Time out timer pre-alert	OFF	Disable this function
			1,2,⋯,10	Radio will alert by LED flashing before transmitting end.
7	WN	Wide/Narrow bandwidth	WIDE	Wide bandwidth 25KHz
			NARR	Narrow bandwidth 25KHz
8	ABR	Auto backlight	OFF	Backlight always on
			1,2,3,4,⋯,50	Auto backlight off time
9	BEEP	Alert tone	OFF	Alert tone off
			ON	Alert tone on
10	R-DCS	RX DCS	OFF	None DCS tone programmed
			D023N,⋯,D754I	Desired DCS tone programmed
11	R-CTCS	RX CTCSS	OFF	None CTCSS tone programmed
			67.0HZ,⋯,254.1HZ	Desired CTCSS tone programmed

12	T-DCS	TX DCS	OFF	None DCS tone programmed
			D023N,⋯,D754I	Desired DCS tone programmed
13	T-CTCS	TX CTCSS	OFF	None CTCSS tone programmed
			67.0HZ,⋯,254.1HZ	Desired CTCSS tone programmed
14	DTMFST	Side key tone	OFF	Radio will not emit code tone when transmitting DTMF code
			KEY	Radio emit code tone when manually transmitting DTMF code by key
			ANI	Radio emit code tone when auto transmitting the DTMF code
			BOTH	Radio emit code tone in both conditions
15	BCL	Busy channel lockout	OFF	The radio can transmit at any time.
			ON	The radio cannot transmit when the selected channel is busy.
16	SC-ADD	Scan channel add	OFF	Deletes the Channel from the SCAN list
			ON	Adds the Channel to the SCAN list
17	PRI-SC	Priority scan	OFF	Priority scan off
			ON	Priority scan on
18	PRI-CH	Priority channel	000,⋯,199	Select a desired channel as priority channel
19	SC-REV	Scan revert type	TO	Scan by time
			CO	Scan by carrier
			SE	Search to scan
20	OPTSIG	Optional signalling	OFF	Disable optional signalling
			DTMF	DTMF as optional signalling
			2TONE	2 TONE as optional signalling
			5TONE	5 TONE as optional signalling
			QT	Speaker unmutes when receiving matched QT/DQT
21	SPMUTE	Speaker mute	AND	Speaker unmutes when receiving both matched optional signalling and QT/DQT
			OR	Speaker unmutes when receiving either matched optional signalling or QT/DQT
			OFF	Disable PTT-ID transmit
22	PTT-ID	PTT-ID transmit	BOT	Press PTT to transmit signalling code
			EOT	Release PTT to transmit signalling code

22	PTT-ID	PTT-ID transmit	BOTH	Press and release PTT to transmit signalling code
23	PTT-LT	PTT-ID transmit delay time	0,1,⋯,30	Delay time before PTT-ID transmit
24	S-INFO	Signalling code	1,⋯,15	Signalling code can be programmed by PC software only
25	EMC-TP	Alarm Mode	ALARM	Radio emit emergency alarm tone.
			ANI	Radio emit both emergency alarm code and ANI code.
			BOTH	Radio emit emergency alarm tone, emergency alarm code and ANI code.
26	EMC-CH	Emergency alarm channel	000,⋯,199	Radio will emit emergency alarm from specified emergency alarm channel
27	RING-T	Ring time	OFF,1,2,⋯,10	The radio will ring in pre-programed time(1–10s selective) after received matched option signalling, speaker will then unmute after time's up.
28	CHNAME	Channel name edition		In channel mode to edit the channel name
29	CA-MDF	A Band channel display mode	FREQ	Frequency mode
			CH	Channel display mode
			NAME	Channel name display mode
30	CB-MDF	B Band channel display mode	FREQ	Frequency mode
			CH	Channel display mode
			NAME	Channel name display mode
31	AUTOLK	Keypad automatic lockout	OFF	Disable keypad auto lockout function
			ON	Enable keypad auto lockout function
32	PONMSG	Power-on message display mode	FULL	Full screen display when power on
			MSG	Display specified message when power on
33	WT-LED	Standby backlight color	OFF	Close the backlight
			BLUE	In standby mode, blue backlight on
			ORANGE	In standby mode, orange backlight on
			PURPLE	In standby mode, purple backlight on

34	RX-LED	RX (receiving) backlight color	OFF	Close the backlight
			BLUE	Blue backlight on when receiving
			ORANGE	Orange backlight on when receiving
			PURPLE	Purple backlight on when receiving
35	TX-LED	TX (Transmitting) backlight color	OFF	Close the backlight
			BLUE	Blue backlight on when transmitting
			ORANGE	Orange backlight on when transmitting
			PURPLE	Purple backlight on when transmitting
36	MEMCH	Memory Channel Storage	000,⋯,199	Select a channel (000–199) to store desired frequency, the channel (000–199) with "CH" was programmed with frequency earlier.
37	DELCH	Memory channel delete	000,⋯,199	Delete any channel from 000–199, the channel number without "CH" is not programmed with frequency.
38	SFT-D	Offset Direction	OFF	Offset is turn off, TX frequency is same as RX frequency.
			+	Plus offset, means TX frequency is higher than RX frequency.
			-	Minus offset, means TX frequency is lower than RX frequency.
39	OFFSET	Offset frequency	00.000,⋯,69.990	Offset frequency range is 00.000–69.990MHz selective. In VFO mode, the offset between TX and RX.
40	ANI	ANI code		ANI code is PC programmable only
41	ANI-L	Length of ANI code	3,4,5	Length of ANI code
42	REP-S	Repeater activation by optional signalling	1000	When radio is transmitting, press [CALL] to send 1000Hz to activate repeater function.
			1450	When radio is transmitting, press [CALL] to send 1450Hz to activate repeater function.
			1750	When radio is transmitting, press [CALL] to send 1750Hz to activate repeater function.
			2100	When radio is transmitting, press [CALL] to send 2100Hz to activate repeater function.

43	REP-M	Repeater transponder mode	OFF	Disable repeater transponder function
			CARRI	Repeater transpond when receiving matched carrier
			CTDCS	Repeater transpon when receiving matched CTCSS/DCS.
			TONE	Repeater transpon when receiving matched tone.
			DTMF	Repeater transpond when receiving matched DTMF code.
44	TDR-AB	Dual standby function (TDR)	OFF	The function is disabled, radio always stay on the main band.
			1,⋯,50	Radio will automatically switch to the channel which receiving matched signals.
45	STE	Squelch tail-elimination	ON	Enable squelch tail-eliminated function.
			OFF	Disable squelch tail-eliminated function.
46	RP-STE	Repeater squelch tail elimination	OFF	This function is disabled.
			1,⋯,10	1–10 indicate squelch tail length, used to eliminate squelch tail noise produced because of repeater delay.
47	RPT-DL	Delay time to receive repeater signal	OFF	Disable this function.
			1,⋯,10	1–10: Select delay time to receive repeater signal.
48	RESET	Reset	VFO	Reset the menu mode to factory default setting.
			ALL	Reset all memories and other settings to factory default setting.

■ GENERAL SPECIFICATIONS

General Specifications

Frequency range	Rx: 136-174MHz & 220-260MHz & 400-480MHz Tx: 144-148MHz & 222-225MHz & 420-450MHz
Channel capacity	200 channels
Channel Spacing	25KHz/20KHz/12.5KHz
Channel step	5KHz, 6.25KHz, 10KHz, 12.5KHz, 15KHz, 25KHz,
Working Voltage	13.8V DC ± 15%
Squelch way	CARRIER / CTCSS / DCS / 5Tone / 2Tone / DTMF
Frequency stability	± 2.5ppm
Operating temperature	-20~+60°C
Dimension	98 (W) x 35 (H) x118 (D) mm
Weight	408g

Receiver (ETSI EN 300 086 Standardized Test)

	Wide Band	Narrow Band
Sensitivity	$\leq 0.25\mu\text{V}$	$\leq 0.35\mu\text{V}$
Adjacent Channel Selectivity	$\geq 70\text{dB}$	$\geq 60\text{dB}$
Intermodulation	$\geq 65\text{dB}$	$\geq 60\text{dB}$
Spurious Rejection	$\geq 70\text{dB}$	$\geq 70\text{dB}$
Audio response	+1~−3dB (0.3~3KHz)	+1~−3dB (0.3~2.55KHz)
Hum & Noise	$\geq 45\text{dB}$	$\geq 40\text{dB}$
Audio Distortion	$\leq 5\%$	
Audio output power	$\geq 2\text{W@10\%}$	

Transmit (ETSI EN 300 086 Standardized Test)

	Wide Band	Narrow Band
Output power	25W/20W(VHF/UHF)	
Modulation Mode	16KΦF3E	11KΦF3E
Adjacent Channel Selectivity	$\geq 70\text{dB}$	$\geq 60\text{B}$
Hum & Noise	$\geq 40\text{dB}$	$\geq 36\text{dB}$
Spurious Emission	$\geq 60\text{dB}$	$\geq 60\text{dB}$
Audio response	+1~−3dB (0.3~3KHz)	+1~−3dB (0.3~2.55KHz)
Audio distortion	$\leq 5\%$	

Attention: Above specifications are subject to change without any notice due to technology enhancement.

FCC Compliance Statements:

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

■ Licensing Information

Use of our radio in USA is subject to the rules & regulations of FCC. Changes or modifications not expressly approved by our may void the user authority granted by the FCC to operate this radio and should not be made. To comply with FCC requirements, transmitter adjustments should be made only by or under the supervision of a person certified as technically qualified to perform transmitter maintenance and repairs in the private land mobile and fixed services as certified by an organization representative of the user of those services. Replacement of any transmitter component (crystal, semiconductor, etc) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

Note: Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

Important: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device. Your radio is set up to transmit a regulated signal on an assigned frequency. It is against the law to alter or adjust the settings inside the radio to exceed those limitations. Any adjustments to your radio must be made by qualified technicians.