

	Time Zone	Set the time zone of the radio clock	Used to correct Time Zone Selection
	Pairing	Enable Bluetooth Pairing	ON: Checked OFF: Unchecked (Turns off once pairing is completed)
	NOAA	WX Scan	Scan of nearby NOAA Stations
		WX Channel	Manually select NOAA Channel
		WX Alert	Turn on Weather Alerts (Check to activate)
		WX Monitor	Listen to Local NOAA Station (Check to turn on)
	GPS Status	Shows GPS Information	
	Compass	Calibrate Compass	
	Status	Shows Various Radio Info	

Appendix B

CPS Menu

Team	Create a Team	Select Members to be on Your Team	
	Join A Team	Join an existing Team	
Nearby People	Show People nearby you	Show map with locations of nearby people	
Device Settings			
	Volume	Set volume level of radio	
	Squelch Level	MON to 10	Open Squelch to Tight Squelch (10)
Device Speaker	Auto	Auto select either earpiece or speaker	
	On	Speaker On	
	Off	Speaker off	
General Settings	WX Mode	Off	Disable NOAA reception
		Monitor	Monitor NOAA Broadcast
		Alert	WX Alert (warnings turn on audio)

	WX Channel	WX1 to WX7	Select local NOAA broadcast
	TX Time Limit	Set Tx Time out timer	10 to 300 sec or Unlimited (no timer)
	TX Hold Time	TX off delay	Off, 0.1sec to 1 sec in 0.1 sec steps
	PTT Follow	Used with Sub Band on	See Page 45 for explanation
	Tail Elimination	Remove noise burst at end of signal reception	Slider on (to right)
			Slider off (to left)
	Audio Relay	Record the received voice and then re-transmit it, the recording time is limited to 30 seconds.	<i>When you turn on this feature, you will hear repeated voices, please be cautious.</i>
	Microphone Gain	Low	Set the sensitivity of the microphone
		Medium	
		High	
	Wireless Mic Gain	Low	Sets the sensitivity of the wireless mic
		Medium	
		High	

	Headphone Mode	Voice Mode	Switches between Radio and Phone Mode
		Call Mode	
	Keep Headset Connected	Maintain connection to Bluetooth Headset or Spkr/mic	On/Off
	Tone	Turn on /off radio beep	
	Power Saving Mode	On/ Off	
	Auto Power On	Use to automatically tun on unit	
	Automatic Shut Down	Used to turn off unit after preset time	Off, 15m,30m,1h,2h,4h,8h,16h
	Reset Settings	Clear all user settings	
	Factory Data Reset	Return Device to factory default settings	CAUTION: This will clear ALL user settings
Connection Management	SCAN	Start	Start Frequency of scan range
		End	Stop Frequency of Scan Range
		>	Start Scanning
		Click Arrow next to	Go back a screen and stop

		SCAN	scanner.
SCAN	Used to Scan frequencies for activity		
Channel & Groups	List of Channels and Channel Groups		
Programmable Buttons	Variable Programming for P1	Set user desired functions to P1	Refer to page 32 for button layout.
Firmware Version	Shows FW revision number		
Battery	Shows Battery Voltage		
Wireless PTT Power	Shows Wireless PTT module battery level		
Contact Us	Contact Information for BTech (opens web browser)		
User Manual	Opens browser to online user manual		
Settings			
	ID Signaling	ID Information On/Off	Set with "Nickname"
		Location On/Off	
		Allow Position Check	

		On/Off	
	BBS Routing	Time to Live	0-8
		Maximum Forwarding Times	0-8
	Channel Manager	Add/Delete Channels	
	Channel Group Manager	Import or Create New Channel Groups	
	Offline Maps	Satellite (Google)	Download Maps
		Terrain (Google)	
		Terrain (OpenTropoMap)	
	Simple Mode	Place user Interface in Simple Mode	Limit number of available functions
	Keep Screen On	On/Off	
	Save Voice History	On/Off	Record Voice to phone
	Microphone Gain	Low	Set Microphone Sensitivity
		Medium	
		High	
	PTT Button	Select Button for PTT	

		Function	
	PTT Lock	Lock PTT on	<i>Use with Caution</i>
Morse Code	Speed	Set Speed of Morse Code	1-200 words per minute
	Pitch	Set sidetone pitch	320 to 3000 Hertz
DTMF	Speed	Set Characters per minute	10-500 cpm
About (CPS)	CPS Version		
	Privacy Policy		
	Open-Source License		

DCS Table

Table C.1. DCS Codes

Number	Code	Number	Code	Number	Code	Number	Code
001	D023N	002	D025N	003	D026N	004	D031N
005	D032N	006	D036N	007	D043N	008	D047N
009	D051N	010	D053N	011	D054N	012	D065N
013	D071N	014	D072N	015	D073N	016	D074N
017	D114N	018	D115N	019	D116N	020	D122N
021	D125N	022	D131N	023	D132N	024	D134N
025	D143N	026	D145N	027	D152N	028	D155N
029	D156N	030	D162N	031	D165N	032	D172N
033	D174N	034	D205N	035	D212N	036	D223N
037	D225N	038	D226N	039	D243N	040	D244N
041	D245N	042	D246N	043	D251N	044	D252N
045	D255N	046	D261N	047	D263N	048	D265N
049	D266N	050	D271N	051	D274N	052	D306N
053	D311N	054	D315N	055	D325N	056	D331N
057	D332N	058	D343N	059	D346N	060	D351N
061	D356N	062	D364N	063	D365N	064	D371N
065	D411N	066	D412N	067	D413N	068	D423N
069	D431N	070	D432N	071	D445N	072	D446N

073	D452N	074	D454N	075	D455N	076	D462N
077	D464N	078	D465N	079	D466N	080	D503N
081	D506N	082	D516N	083	D523N	084	D526N
085	D532N	086	D546N	087	D565N	088	D606N
089	D612N	090	D624N	091	D627N	092	D631N
091	D627N	092	D631N	093	D632N	094	D645N
094	D645N	095	D654N	096	D662N	094	D645N
097	D664N	098	D703N	099	D718N	100	D723N
101	D731N	102	D732N	103	D734N	104	D743N
105	D754N	106	D023I	107	D025I	108	D026I
109	D031I	110	D032I	111	D036I	112	D043I
113	D047I	114	D051I	115	D053I	116	D054I
117	D065I	118	D071I	119	D072I	120	D073I
121	D074I	122	D114I	123	D115I	124	D116I
125	D122I	126	D125I	127	D131I	128	D132I
129	D134I	130	D143I	131	D145I	132	D152I
133	D155I	134	D156I	135	D162I	136	D165I
137	D172I	138	D174I	139	D205I	140	D212I
141	D223I	142	D225I	143	D226I	144	D243I
145	D244I	146	D245I	147	D246I	148	D251I
149	D252I	150	D255I	151	D261I	152	D263I

153	D265I	154	D266I	155	D271I	156	D274I
157	D306I	158	D311I	159	D315I	160	D325I
161	D331I	162	D332I	163	D343I	164	D346I
165	D351I	166	D356I	167	D364I	168	D365I
169	D371I	170	D411I	171	D412I	172	D413I
173	D423I	174	D431I	175	D432I	176	D445I
177	D446I	178	D452I	179	D454I	180	D455I
181	D462I	182	D464I	183	D465I	184	D466I
185	D503I	186	D506I	187	D516I	188	D523I
189	D526I	190	D532I	191	D546I	192	D565I
193	D606I	194	D612I	195	D624I	196	D627I
197	D631I	198	D632I	199	D645I	200	D654I
201	D662I	202	D664I	203	D703I	204	D712I
205	D723I	206	D731I	207	D732I	208	D734I
209	D743I	210	D754I				

CTCSS Table

Table C.2. CTCSS Frequencies

Number	Frequency	Number	Frequency	Number	Frequency	Number	Frequency
01	67.0	02	69.3	03	71.9	04	74.4
05	77.0	06	79.7	07	82.5	08	85.4
09	88.5	10	91.5	11	94.8	12	97.4
13	100.0	14	103.5	15	107.2	16	110.9
17	114.8	18	118.8	19	123.0	20	127.3
21	131.8	22	136.5	23	141.3	24	146.2
25	151.4	26	156.7	27	159.8	28	162.2
29	165.5	30	167.9	31	171.3	32	173.8
33	177.8	34	179.9	35	183.5	36	186.2
37	189.9	38	192.8	39	196.6	40	199.5
41	203.5	42	206.5	43	210.7	44	218.1
45	225.7	46	229.1	47	233.6	48	241.8
49	250.3	50	254.1				

SPECIFICATIONS

General

Frequency Range: 87-108MHz (FM Radio ONLY)

136-174MHz (RX Only)

400-520MHz (RX Only)

GMRS Channel (RX/TX)Memory Channel: 30

Channels * 6 Groups

Frequency Stability: $\pm 5\text{ppm}$

Antenna impedance: 50 ohm

Operating temperature: $-20\sim +60^{\circ}\text{C}$ Operating voltage: 13.8V

Size : 140*46*150mm

Weight : 1.1kg

Transmit SpecificationsRF Power: $\leq 50W$

(L/M/H-Channels 1-7@5w Max, 8-14 TX not allowed, 15 to 30@5/25/50W)

	Wide Band	Narrow Band
Modulation:	16K0F3E	11K0F3E
Adjacent channel power	$\geq 70db$	$\geq 60db$
FM noise	$\geq 45db$	$\geq 43db$
Spurious and harmonic	$\geq 60db$	$\geq 60db$
Audio response	$\pm 1 \sim -3db(0.3 \sim 3kHz)$	$\pm 1 \sim -3db(0.3 \sim 2.55kHz)$
Modulation distortion	$\leq 3\%$	

Receive Specifications

Sensitivity (12dB SINAD)	$\leq 0.20\mu V$	$\leq 0.22\mu V$
Adjacent channel selectivity	$\geq 70db$	$\geq 65db$
Intermodulation	$\geq 65db$	$\geq 60db$
False signal response	$\geq 70db$	$\geq 70db$
Audio response	$\pm 1 \sim -3db(0.3 \sim 3kHz)$	$\pm 1 \sim -3db(0.3 \sim 2.55kHz)$
Signal-to-noise ratio	$\geq 45db$	$\geq 40db$
Modulation distortion	$\leq 3\%$	
Audio output power	$\leq 2W$	

Note: All specifications are subject to change without notice or responsibility.