BelFone

www.belfone.com

BF-TD522

Digital FM Radio

Notice to the user

Government law prohibits the operation of unlicensed radio transmitters within the territories under government control.
Illegal operation is punishable by fine or imprisonment or both.

THANK YOU!

We are grateful you choose BelFone series professional radio communications products!

Since 1989, BelFone has been always engaging in research and exploration of radio communications technologies, in order to lead intelligent technologies in the industry. We make every effort to research and design products according to modern complicated communications environment, and we offer complete and customized communication solutions to clients. Our products will satisfy you because of its excellent performance and outstanding communications strength. No matter what field you are in. You will be satisfied with the radio.

This manual is applicable to

Digital FM transceiver model: BF-TD522

Warning!

◆ In explosive atmospheres(inflammable gas, dust particles, much powder area，etc.),please turn the power off.

Precautions

It's important that the operator is aware of and understands hazards common to the operation of any radio .Please observe the following safety precautions to prevent radio damage or personal injury. The following precautions shall be observed during operation, service and repair of this radio.

◆ The recommended usage rate is 1 minute for TX and 4 minutes for RX, when the radio is used for transmission for many hours continuously, the radiator and chassis will become hot;

◆ Don't leave the transceiver in direct sunlight for a long time, don't place the transceiver on extremely heat, damp, dusty area, and don't put it on unstable surfaces;

◆ When restriction or warnings are posted regarding the use of radio devices, please obey the regulation turn the transceiver power off;

◆ Use of the radio while you are driving may be against traffic laws, please prohibit using it ;

◆ If you notice any problems on the radio, please turn off at first. Then contact with local dealer. Do not modify this radio unless instructed by this manual or refer service to a qualified licensed or certified technician only;

◆ If you want to use the machine for secondary development, please contact with BelFone's technical engineer or dealer for technical assistance;

◆ Please keep the surface of radio is clean and dry, clean the radio using a cloth moistened with clean water and a mild dishwashing liquid.

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Supplied Accessories

Notes: The accessories listed below are covered by BelFone dealer、authorized BelFone agents or factories .

After carefully unpacking the transceiver, identify the items listed in the table below. If any items are missing or have been damaged during shipment please contact with dealer immediately.

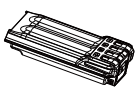
Accessories

Items	Quantity
Antenna	1
Strap	1
Belt Clip	1
Charger	1
Li-ion Battery	1
Screws	1
User Manual	1
Warranty Card	1
Certificate	1

Antenna

Strap

Li-ion Battery



Li-ion Battery

Belt Clip

Screws

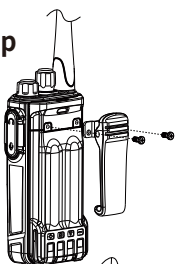
Installation of Accessories

Installation/ removing the antenna

Hold the supplied antenna by its base, then screw it into the connector on the top panel of the radio until fasten. Turn the antenna anti-clockwise to remove it.

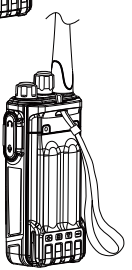
Installation/ removing the belt clip

Attach the belt clip using the two supplied3*4mm binding screws.



Attaching/ removing the strap

Thread the hand strap to the loop back of your two-way radio.

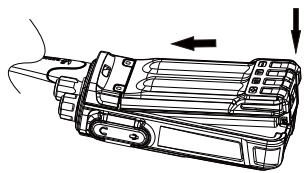


Attaching/Removing the Battery

Warning!

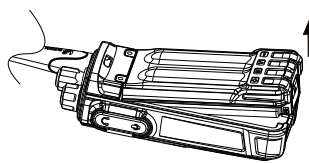
- Don't short-circuit the battery, it may cause the battery damaged or burst into flame;
- Never attempt to remove the casing from battery, the battery terminals may short circuit;
- 3.Battery is flammable objects, don't throw it into fire or don't use it on dangerous area.

Match the top of the battery with the corresponding grooves on the upper rear of the radio, and then press the battery until a click is heard to lock it in place.



To remove the battery, please turn the power off then push up the latch at the bottom of the back to unlock the battery and pull the battery away from the radio.

Note: Don't attach / remove the battery if the transceiver turned on.



Battery Information

The new battery hasn't been fully charged before shipped, please charge more than 5 hours at the first use.The maximum battery capacity and performance is achieved after three full charge/discharge cycles. If you notice the battery power runs lows, please recharge the battery.

Applicable Battery

To reduce the risk of injury, please only use the battery and charger specified by BelFone, other batteries may burst, causing bodily injury and property damage.

Battery Tips

● 1.When charging your battery, keep it at a temperature among 5℃—40℃. Temperature out of the limit may cause battery leakage or damage.
● When charging a battery attached to a radio, turn the radio off to ensure a full charge.
● Do not cut off the power supply or remove the battery when charging a battery.
● Never charge a battery that is wet, please dry it with soft cloth prior to charge.
● Even if the battery is full charged, the operating time is noticeably shorter than normal performance; it is time to change to a new battery.

To Prolong Battery Life

1. Battery performance will be greatly decreased at a temperature below 0℃ , a spare battery is necessary in cold weather, the cold battery unable to work in this situation may work under room temperature, so keep it for later use.
2. The dust on the battery contact may cause battery breakdown, please use a clean dry cloth to wipe it before attaching the battery to the radio.

Battery Storage

1. Fully charge a battery before you store it for a long time, to avoid battery damage due to over-discharge.
2. Recharge a battery after several months' storage, to avoid battery capacity reduction due to over-discharge. (NI-MH batteries: 3 months, Li-Ion& Li-polymer batteries: 6 months)
3. Store your battery in a cool, dry place under room temperature, to reduce self-discharge.

Charge the Battery

Use only the charger specified by the manufacturer, the charge indicator indicates the charging progress.

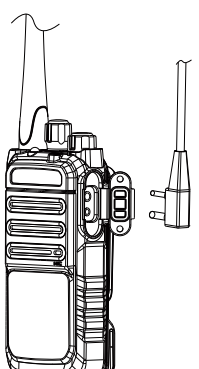
Charger Status	Charger Indicator
Standby(No-load)	Charge Indicator glows green
Battery is charging	Charge Indicator glows red
Battery is fully charged	Charge Indicator glows green

Charging Procedure:

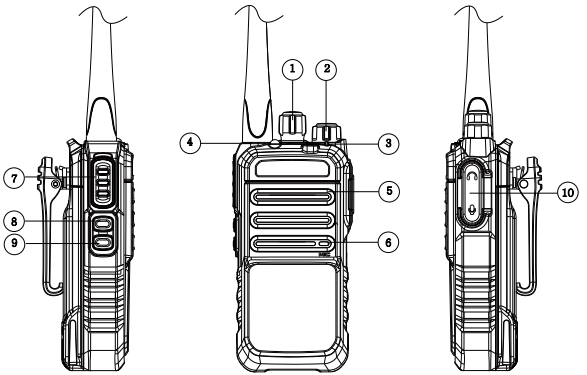
1.Plug the AC connector of the switching power into the AC outlet socket, the charger indicator glows green;
2.Place the battery or the radio is attached with a battery in the charger;
3.Making sure the battery is connected to the charger, the charging process initiates when the charger indicator glows red;
4.The charger indicator glows green when the battery is fully charged, please remove the battery.

Attaching the Speaker/Microphone

Open the accessory port cover, then align the plug with the accessory port and tighten the screw on the plug.



Getting Acquainted



①	Channel Selector Knob	⑥	Microphone (MIC)
②	Power switch/volume adjust keys	⑦	PTT Key
③	LED Indicator	⑧	Button 1
④	Lamp	⑨	Button 2
⑤	Speaker	⑩	MIC-SP Jack

Basic Operation

Power On /Off

Rotate the power switch/volume adjusting keys clockwise to turn the power on.

Rotate the power switch/volume adjusting keys anti-clockwise to turn the power off.

Adjusting the volume

After the radio is powered on, you can rotate the power switch/volume adjust keys to adjust the volume level, rotate the knob clockwise to increase the volume, or rotate the knob anti-clockwise to decrease the volume.

Selecting a Channel

Turn the channel selector knob to select channel 1 to 16, rotate the knob clockwise to increase the channel number, or rotate the knob anti-clockwise to decrease the channel number, while enable all tone alert ,handover channel will hear a channel number.

Note: If a channel is not programmed, LED indicator flash red and a prompt tone "no channel "sounds.

Selecting a Zone

The radio supports up to 16 zones, each with a maximum of 16 channels, and a total of 256 channels can be added. You may select a desire zone by setting "zone selection" function to button 1 or button 2, then handover zone. While enable all tone alert, select zone will hear a channel number.

Note: This function is valid only if there are 2 or more areas.

Dual Modes Switching

If current channel mode is D/A compatible, press side button【AD Switch】function to switch the channel mode. The current channel mode is digital

compatible analog , press 【AD Switch】button to switch to analog compatible digital mode; the current channel mode is analog compatible digital, press 【AD Switch】button to switch to digital compatible analog mode.

Note: AD Switch function only switching the channel mode temporarily, while you restart the radio or rotate channel selector knob, the current channel will resume defaulting mode.

Call

Each digital channel you may initiate a private call, a group call or an all call; On analog channel press PTT key to directly initiate call; On analog compatible digital channel press PTT key, if is not within hang time to transmit analog call, within the hang time to call back; On digital compatible analog channel press PTT key, if is not within hang time to initiate a digital call, within hang time to call back. To transmit press and hold down the PTT key, LED indication glows red, speak into the microphone, hold the palm microphone approximately 3 to 4 centimeters away from your mouth.

1.)Group Call

To initiate a group call, the radio will add the group contact via the programming software. If you preset a group call contact for current digital channel, press PTT key to initiate a group call. Also allow set the one touch call key as group call feature, then to initiate a group call. Release PTT key to exit transmitting.

2.)Private Call

To initiate a private call, the radio will add the private contact via the programmable software. If you preset a private call contact for current digital channel, press PTT key to initiate a private call. Also allow set the one touch call key as private call feature, then to initiate a private call. Release PTT key to exit transmitting. If the feature “private call ACK” is enabled, to transmit a private call need to confirm whether target device is power on or activate on the current channel.

3.)All Call

If you preset an all call contact for current digital channel, press PTT key to initiate an all call, release PTT key to exit transmitting.

4.)Receiving and responding to a call

On digital channel, while a private call is received, you may press the PTT key within the preset time period to call back. If you do not respond to a received private call within the preset time period, the radio will display the missed call icon; while a group call is received, you may press the PTT key within the preset time period to call back. If you do not respond to a received group call within the preset time period, the radio will display the missed call icon; while an all call is received, you can't respond to an all call. On digital compatible analog channel or analog compatible digital channel, the radio detects both the digital signal and the analog signal (must have a subsonic) when receiving, and locks the corresponding channel mode when a matching signal is detected, you may press the PTT key within the preset time period to call back.

Note: While enable channel free indication feature, if the transmitter release PTT key will with a tone.

Button Setting

For enhanced convenience, you may program the keys button1, button2, short and long press of a key can be assigned with different functions.

Programmable keys are including functions listed below:

1	Unassigned	The key is not assigned with any function
2	One Touch Call 1~6	To quick access a service as: group call, private call, private message, group message, and call alert.
3	Emergency on/off	Allow user to make an emergency call
4	Monitor	Enable monitor function.
5	Scan on/off	To enable or disable the scan function.
6	All alert tone on/off	To enable or disable all alert tones
7	Battery Indicator	Quick to view battery capacity. if battery strength level is 70%-100%, a "Power High "sounds; if battery strength level is 30%-70%, a "Power Middle" sounds; if battery strength level is 15%-30%, a" Power Low "sound.

8	Zone Toggle	Quick access to [Zone Toggle]
9	AD Switch	To temporarily switch channel mode to AD or DA on digital analog compatible channel.
10	Flashlight on/off	To enable or disable the lamp quickly
11	Power Switch	To switch High/Middle/Low Power quickly
12	Repeater/talk around	To enable or disable talk around quickly
13	Vox on/off:	To enable or disable VOX quickly
14	Nuisance Delete	To temporarily ignore unwanted channel activity
15	Permanent Monitor	To enable or disable permanent monitor function

Functions and Operations

Scan

Scan is useful for monitoring signals on the radio channels which is configured the scan list. While scanning, the radio checks for a signal on each channel and only stops on a channel if a signal is present. Press programmed [Scan on/off] key to begin scanning, while scanning on, a “scan on” sounds, LED indicator flash red. While scanning off, a “scan off” sounds

Via programmable software to set it: Scan folder(Scan Hang Time) → A desired scan list → add available channel to members channel → a digital or analog channel to select scan list

● **Scan Hang Time:** When a signal is detected on a channel, scan pauses on that channel, the radio will remain on the busy channel until the signal is no longer present. When the signal “drop out” the radio will remain on the channel momentarily before scan resumes. The delay time is programmed 500 to 10000 milliseconds.

● **Talkback:** When a signal is detected on a channel, scan pauses on that channel, press PTT key can talk back on the channel if enable “Talk Back’ feature; if “Talk Back” isn’t checked, press PTT key may talk back on the designated

channel.

● **First Priority Channel:** Select first priority channel from scan list of members' channel. To begin scanning, the radio will automatically change to the first priority channel then detect other channel on the scanning sequence. You can set selected or a desired channel as first priority channel.

● **Second Priority Channel:** Select second priority channel from scan list of members' channel. To begin scanning, the radio will automatically change to the first priority channel, then the second channel, at last detect other channel on the scanning sequence. You can set selected or a desired channel as second priority channel other than the first priority channel.

● **TX Designated Channel:** During scanning, Press PTT key will transmit on TX designated channel. You can set TX Designated Channel as Last Active Channel, Selected channel or a desired channel from scan list.

Auto Scan

If Auto Scan feature is enabled for a channel, the radio will automatically enter scan mode when it is switched to this channel. To stop scanning, press programmed [Scan On/Off] key or switch to other channels. If return to the channel will enter scan mode directly.

Note: when "scan list" is set to "None", this function is invalid.

Monitor and Permanent Monitor

Monitor: On analog or digital channel, enable the Monitor feature to monitor current channel activities and receive weak signals. Press the programmed [Monitor] key to activate the monitor function, if a signal is detected, until the signal is no longer present the radio will exit monitor mode.

Permanent Monitor: Permanent monitor feature is the same as monitor, but long press the [Permanent Monitor] key to enter monitor mode, the radio will remain on monitor mode until long press it again to exit.

Message

On digital channel and digital analog compatible channel, you can send preset messages by programmed [one touch call] key. Edit message text via programmable software, the message list save up to 10 entries, and each of a

message contains 140 characters at most.

One Touch Call

On digital channel and digital analog compatible channel, one touch call feature contains: to send messages or transmit to a group call contact, to send messages or send call alert and transmit to a private call contact. The feature allows you to press the pre-programmed one touch call key to quick access a service assigned via the programmable software.

● Group Call

On one touch call menu, the call member select group call contact, and the call type select group call. Then the programmed key set as one touch call, press the programmed key a high-pitched tone sound, with 5 seconds press PTT key to initiate a group call.

● Group Message

On one touch call menu, the call member select group call contact, and the call type select short message, message text select from preset message list. Then the programmed key set as one touch call, press the programmed key to send a message to a group call.

● Private Call

On one touch call menu, the call member select private call contact, and the call type select private call. Then the programmed key set as one touch call, press the programmed key a high-pitched tone sound, with 5 seconds press PTT key to transmit a private call.

● Private Message

On one touch call menu, the call member select private call contact, and the call type select short message, message text select from preset message list. Then the programmed key set as one touch call, press the programmed key to send a message to a private call.

●Call Alert

On one touch call menu, the call member select private call contact, and the call type select call alert, then the programmed key set as one touch call, press the programmed key to send call alert to a private call.

Talk Around

When your repeater malfunctions, or when radio is out of repeater's range, you can continue to communicate in talk around mode. While enable talk around feature, by this time TX frequency is the same as to RX frequency. Press the programmed Repeater/Talk Around key to switch between repeater modes and talk around mode. Switch to talk around, a "talk around" sound; switch to repeater mode, a "repeater" sounds.

Via programmable software to set it: Channel folder → Zone → a digital or analog channel → Allow Talk Around

Note: **To enable this function, TX frequency should be different from RX frequency, and the channel will set as allow talk around on the programmable software.**

TX Power

You can switch power levels to Low or High. If you communicate with radio located at a distant place please select High power; if you communicate with radio located at a close place please select Low power to save battery. Press the programmed [Power Switch] key to switch between high power and low power. Switch to high power, a "high power" sounds; Switch to middle power, a "middle power" sounds; switch to low power, a "low power" sounds.

Press programmed [High/Low power] key to switch power level or select power level via programmable software

Via programmable software to set it: Channel folder → Zone → a digital or analog channel → TX Parameters → Power Level

Bandwidth

On analog mode, there are two types of bandwidth available, you can choose bandwidth as wide (25 KHz) or narrow (12.5 kHz) via programmable software.

Via programmable software to set it: Channel folder → Zone → An analog channel →Bandwidth

Squelch Level

On analog mode and digital analog compatible channel, this feature allows you to adjust the squelch threshold for the radio to receive audio. You can set squelch level as 0~9. High level requires stronger signal for the radio to un-mute.

Via programmable software to set it: Channel folder → Zone → an analog channel →Squelch Level

Emergency

The digital channel and digital analog compatible channel support the emergency alarm function. In case of an emergency you can enter emergency mode to ask for help, short press programmed [Emergency on] key to send emergency information, to exit emergency mode, long press [Emergency off]. On regular type alarm, after send emergency information then receive ACK command or the alarm cycles expire, the radio will exit the emergency mode automatically. On silent type alarm, after send emergency information then press PTT key to exit emergency mode.

Via programmable software to set it: Signaling Systems folder → Digital Red Alert → add system1 to set parameters → Channel folder → add Emergency system

● **Emergency Type:** Disable, Regular, Silent, Silent with voice, the Disable option is unable to transmit emergency information;

● **Emergency Mode:** Emergency Alarm, emergency alarm with call, emergency alarm with voice to follow

● **Revert Channel:** Revert channel is used for digital emergency, only the channel default address is set as group call contact, the channel is available for revert channel.

● **Impolite Retries:** If the current channel is busy, press programmed key also can send emergency information, number of impolite retries can be set as 1to 15.

● **Polite Retries:** Only when the current channel is free, press programmed key to send emergency information, number of polite retries can be set as 0 to 14 and endless.

● **Hot MIC Duration: I**f the emergency mode set as emergency alarm with voice to follow, after send emergency information, your voice and background noise to be transmitted automatically as you don't need to press PTT key within hot MIC duration.

Note: while the short press is set as emergency on, the long press will be set as emergency off by default.

Time Out Timer (TOT)

The purpose of TOT is to prevent any user occupy a channel for an extended period. If a channel is busy, the time will be shorter. If the preset time expires, the radio will generate beep and terminate transmission automatically. Via programmable software, you can set TOT as 15-495 second.

Via programmable software to set it: Channels folder → Zone → A digital or analog channel → TX Parameters → TOT-TOT Rekey Delay

TX Permission

Digital Channel

This feature can restrict the channel if it is already in use you will be unable to transmit. There are three options available: always, color code free, channel free, if choose always, whenever press PTT key to transmit directly; If choose color code free, you will be unable to transmit on the channel if the color code is already in use; If choose channel free, you will be unable to transmit on the channel if it is already in use. If the channel is busy, press PTT key a low-pitched tone will sound.

Via programmable software to set it: Channels folder → Zone → a digital channel → TX Parameters → Admit Criteria

Analog Channel

This feature can restrict the channel if it is already in use you will be unable to transmit. There are three options available: Off, Carrier, CTCSS/CDCSS, if choose off, whenever press PTT key to transmit directly; If choose carrier, you will be unable to transmit on the channel if the channel is being used by others; If choose CTCSS/CDCSS, you will be unable to transmit on the channel if it is already in use and the CTCSS/CDCSS code in use. If the channel is busy, press PTT key a low-pitched tone will sound.

Via programmable software to set it: Channels folder → Zone → An analog channel → TX Parameters → BCL

Alone Worker

This function is useful for persons who work lonely and encounter an incident; you cannot press any keys or transmit audio within the preset period time. The radio will alarm automatically to ask help. Via the programmable software to enable the feature, and setting work alone response time, work alone warn time, work alone response operation.

Via programmable software to set it: Signaling Systems folder→Work Alone→ Work Alone Enable→Work Alone Response Time→Work Alone Warn Time→ Work Alone Response Operation

Voice Encryption

The voice encryption can encrypt your audio signals to guarantee the privacy of your communication, via the programmable software user can select encryption type as static or dynamic. If the encrypt feature is enabled, the transmitter and receiver will be set as the same encryption type and same voice encryption key, otherwise the receiver is mute.

Via programmable software to set it: General Settings folder →Voice Encryption Type→ Voice Encryption Key

Note: This feature is effective on digital channel, if enable voice encryption feature, the voice encryption key must be 10 characters, there are including letters and numbers.

VOX

If enable VOX feature you can enjoy hands-free communication, the radio will automatically begin transmitting when you speaking, and terminate transmitting when you stop talking with no need of PTT press. You may set VOX level as1~9 or disable (Off). When the environment too much noise, VOX level will be higher, when the environment is quiet, VOX level will be lower. It allow user to set VOX delay as 500 to 10000 milliseconds. If the VOX level is set as off via the programmable software, press programmed [VOX on/off] key can't enable VOX

feature, if the VOX level is set as 1 to 9, press programmed VOX on/off key can enable or disable VOX feature

Via programmable software to set it: General Settings folder →VOX level→ VOX delay(ms)

Note: The VOX function is invalid when the headset is plugged in.

Battery Saver

This feature allows an idler radio to automatically enter battery saver mode, the mode will extend battery service life, but response time may be delayed. You can set battery saver time ratio as: 1:1, 1:2, 1:3, 1:4, the time rate is smaller, the power saving more evidently.

Via programmable software to set it: General Setting folder → Battery Saver

Reject Stranger Call

On digital mode, if enable reject strange call feature, while the call ID not exist in the contacts list, it's unable to transmit or receive. When received group call or all call, the device ID of transmitter and group call ID or all call ID should preset on address list.

Via programmable software to set it: General Settings folder →Reject Strange Call

Tone Alerts

Voice Indication

If enable voice indication feature, the radio will give tone indication for channel change, zone change, power level switch, AD switch, scan feature enable or disable, VOX on or off, low battery alert, repeater mode or talk around mode switch and etc.

Channel Free Indication

On digital mode, if enable Channel Free Indication feature, the receiver gives a high-pitched tone indication while the transmitter release PTT key to stop transmitting.

Talk Permit Indication

There are four options are available for Talk Permit Indication feature: None (the radio does not give any tone indication for transmission on analog and digital channel), Analog (the radio gives tone indication for transmission on analog channel), Analog & Digital (the radio gives tone indication for transmission on analog and digital channel), Digital (the radio gives tone indication for transmission on digital channel).

Via programmable software to set it: General Settings folder →Tone Alerts → Voice Indication → Channel Free Indication → Talk Permit Indication

Lower Battery Alert

When your battery gets low, LED indicator glows red and with a warning tone: "Please Charge", please replace the battery or charge the battery in time. The radio will turn off automatically while battery is too low.

Via programmable software to set it: General Setting folder → Tone Alerts →RX low battery interval (sec)

Flashlight

There are three flashlight modes: normally on, flashing and SOS mode (three short lights, three long lights, three short lights of the cycle). Press programmed [Flashlight on/off] key the flashlight keeps on, press the key again the flashlight switch to flash mode, and press the key again the flashlight switch to SOS mode, finally press it to turn off the flashlight.

CTCSS/CDCSS

On analog channel and digital analog compatible channel, you can set unique CTCSS/CDCSS to guarantee the privacy of your communication, on digital compatible analog or analog compatible digital channel there must have a CTCSS/CDCSS. If CTCSS/CDCSS has been set on the current channel, CTCSS/CDCSS match is required for the radio to receive an incoming signal. You can select a CTCSS/CDCSS from CTCSS frequency table or CDCSS code table, or input non-standard CTCSS/CDCSS manually.

Via programmable software to set it: Channels folder→ Zone→ An analog channel → TX Parameters to select encode→ RX Parameters to select decode

- **Decode:** Only when receiver receives a call containing matching the decode, you can hear the call;
- **Encode:** Signal that you transmit will only be heard by parties whose CTCSS/CDCSS signaling matches your radios.

Note： **The radio approve of non-standard code, on analog mode, you can input non-standard code manually as you need.**

CTCSS Standard Frequency Table

CTCSS No.	Freq. [Hz]	CTCSS No.	Freq. [Hz]	CTCSS No.	Freq. [Hz]	CTCSS No.	Freq. [Hz]
1	67.0	11	94.8	21	131.8	31	186.2
2	69.3	12	97.4	22	136.5	32	192.8
3	71.9	13	100.0	23	141.3	33	203.5
4	74.4	14	103.5	24	146.2	34	210.7
5	77.0	15	107.2	25	151.4	35	218.1
6	79.7	16	110.9	26	156.7	36	225.7
7	82.5	17	114.8	27	162.2	37	233.6
8	85.4	18	118.8	28	167.9	38	241.8
9	88.5	19	123.0	29	173.8	39	250.3
10	91.5	20	127.3	30	179.9		

CDCSS Standard Code Table

NO.	Normal	Inverted	NO.	Normal	Inverted	NO.	Normal	Inverted
1	D023N	D023I	29	D174N	D174I	57	D445N	D445I
2	D025N	D025I	30	D205N	D205I	58	D464N	D464N
3	D026N	D026I	31	D223N	D223I	59	D465N	D465N
4	D031N	D031I	32	D226N	D226I	60	D466N	D466I
5	D032N	D032I	33	D243N	D243I	61	D503N	D503I
6	D043N	D043I	34	D244N	D244I	62	D506N	D506I
7	D047N	D047I	35	D245N	D245I	63	D516N	D516I
8	D051N	D051I	36	D251N	D251I	64	D532N	D532I
9	D054N	D054I	37	D261N	D261I	65	D546N	D546I
10	D065N	D065I	38	D263N	D263I	66	D565N	D565I
11	D071N	D071I	39	D265N	D265I	67	D606N	D606I
12	D072N	D072I	40	D271N	D271I	68	D612N	D612I
13	D073N	D073I	41	D306N	D306I	69	D624N	D624I
14	D074N	D074I	42	D311N	D311I	70	D627N	D627I
15	D114N	D114I	43	D315N	D315I	71	D631N	D631I
16	D115N	D115I	44	D331N	D331I	72	D632N	D632I
17	D116N	D116I	45	D343N	D343I	73	D654N	D654I
18	D125N	D125I	46	D346N	D346I	74	D662N	D662I
19	D131N	D131I	47	D351N	D351I	75	D664N	D664I
20	D132N	D132I	48	D364N	D364I	76	D703N	D703I
21	D134N	D134I	49	D365N	D365I	77	D712N	D712I
22	D143N	D143I	50	D371N	D371I	78	D723N	D723I
23	D152N	D152I	51	D411N	D411I	79	D731N	D731N
24	D155N	D155I	52	D412N	D412I	80	D732N	D732N
25	D156N	D156I	53	D413N	D413I	81	D734N	D734I
26	D162N	D162I	54	D423N	D423I	82	D743N	D743I
27	D165N	D165I	55	D431N	D431I	83	D754N	D754I
28	D172N	D172I	56	D432N	D432I			

Specifications

General	
Frequency Range	UHF: 400 MHz
Channel Capacity	256
Zones	16
Channel Spacing	12.5KHz/25KHz
Operating Voltage	DC 3.7V (±20%)
Battery Capacity	4000mAh
Battery Life（5/5/90）	Digital: 24 Hours; Analog: 18 Hours
Frequency Stability	±1.5ppm
Antenna Impedance	50Ω
Dimensions (L×W×H)	59（L）*36 (W) *115 (H)mm
Weight	252g (Including Battery)
Transmitter	
RF Output Power	High：5W；
4FSK Modulation	12.5kHz Only data：7K60FXD 12.5kHz data and audio：7K60FXE
FM Modulation	12.5 kHz：8K50F3E； 25 kHz：16KΦF3E；
Modulation Limiting	+/- 2.5kHz @ 12.5kHz; +/- 5kHz @ 25kHz
FM Noise	-40dB
Conducted Emission	-36 dBm≤1GHz/-30 dBm≥1GHz
Adjacent Channel Power	≤-60dB
Audio Response	+1/-3 dB

Transmitter	
Audio Distortion	3%
Digital Voice coder Type	AMBE+3™
Receiver	
Digital Sensitivity	5% BER：0.25 uV
Analog Sensitivity	0.25 uV (12 dB SINAD)
Intermodulation	60dB
Adjacent Channel Selectivity	60 dB
Spurious Response Rejection	60 dB
FM Noise	-40dB
Audio Response	+1/-3 dB
Rated Audio output power	500mW
Audio Distortion	3% (Typical)
Conducted Spurious Emission	-57dBm
Environmental Specifications	
Working Temperature	-20℃—+60℃
Storage Temperature	-30℃—+85℃
Moisture Proof	MIL-STD-810C/D/E/F
Vibration & Shock	MIL-STD-810C/D/E/F

Statement

Our Company endeavors to achieve the accuracy and completeness of this manual, if you have any question, you can contact with us, we will make a detailed answer to you in time. All the above specifications and design are subject to change without prior notice due to continuous development.

BelFone

FUJIAN BELFONE COMMUNICATIONS TECHNOLOGY CO.,LTD.

Add: A-15 Huaqiao Economic Development Zone,
Shuangyang,Luojiang,Quanzhou,Fujian,China
Tel: +86 595 28396717
Fax: +86 595 22771635
Email: overseas@belfone.com
Website: www.belfone.com

RECYCLABLE PACKAGING