

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 BeiFeng series professional radio communications products!

Since 1989, BeiFeng has been always engaging in research and exploration of radio communications technologies, In order to lead intelligent technologies in the industry. We still 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

UHF digital transceiver model: BF-TD505

RF Exposure Compliance and Control Guidelines and Operating Instructions:

Mandatory RF exposure training is required for workers to qualify devices for occupational exposure limits.

To control your exposure and ensure compliance with the occupational/controlled environment exposure limits always adhere to the following procedures.

Guidelines:

- Do not remove the RF Exposure Label from the device.
- User awareness instructions should accompany device when transferred to other users.
- Do not use this device if the operational requirements described herein are not met.

Operating Instructions:

• Transmit no more than the rated duty factor of 50% of the time. To transmit (talk), push the Push-To-Talk (PTT) button. To receive calls, release the PTT button.

Transmitting 50 % of the time, or less, is important because this radio generates measurable RF energy exposure only when transmitting (in terms of measuring for standards compliance).

- Hold the radio in a vertical position in front of face with the microphone (and the other parts of the radio, including the antenna) at least one inch (2.5 cm) away from the nose. Keeping the radio at the proper distance is important because RF exposures decrease with distance from the antenna. Antenna should be kept away from eyes.
- When worn on the body, always place the radio in an approved clip, holder, holster, case, or body harness for this product. Using approved body-worn accessories is important because the use of Beifeng's or other manufacturer's non-approved accessories may result in exposure levels, which exceed the FCC's occupational/controlled environment RF exposure limits.
- Use only manufacturer's name approved supplied or replacement antennas, batteries, and accessories. Use of non-manufacturer-name approved antennas, batteries, and accessories may exceed the FCC RF exposure guidelines.



FCC radiation exposure statement

This radio is intended for use in occupational/controlled applications where users have been made aware of the potential risks for exposure and can exercise control over their exposure.

This product is not authorised for general population, consumer or similar use.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter. Your radio should be used in its normal operating position when hand-held, worn on the body or secured within a cradle. Always ensure that the antenna is pointed away from the body, particularly the eyes. When body-worn, the radio must be secured using a approved attachment. Ensure the antenna is at least 2.5 cm (1 in.) away from the body when transmitting.

IC radiation exposure statement

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This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter. Your radio should be used in its normal operating position when hand-held, worn on the body or secured within a cradle. Always ensure that the antenna is pointed away from the body, particularly the eyes. When body-worn, the radio must be secured using a approved attachment. Ensure the antenna is at least 2.5 cm (1 in.) away from the body when transmitting.

Cette radio a été conçue pour un usage professionnel dans un environnement contrôlé, où les utilisateurs sont pleinement conscients du danger potentiel de l'exposition à laquelle ils sont soumis et peuvent exercer un contrôle sur cette exposition. Ce dispositif radio N'EST PAS autorisé pour l'ensemble de la population, les consommateurs en général, ni pour une utilisation similaire. Cet émetteur ne doit pas être co-localisés ou fonctionner en conjonction avec une autre antenne ou émetteur.

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, allow the rear panel of the radio to contact surface of low melting point /low Ignition point object;

- ◆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 BeiFeng'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 BeiFeng dealer、authorized BeiFeng agents or factories .

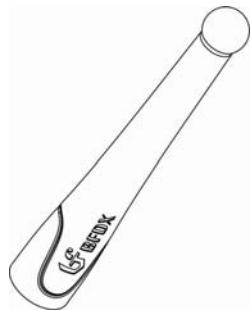
After carefully unpacking the transceiver, identify the items listed in the table below. If any items are missing or have been damaged during shipment please contact with dealer immediately.

Accessories

Items	Number	Quantity
Antenna		1
Strap		1
Belt Clip		1
Charger		1
Li-ion Battery		1
Screws		1
Instruction Manual		1

Warranty Card		1
Certificate		1

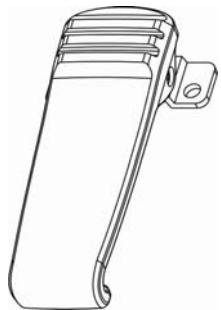
Antenna



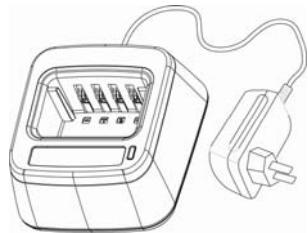
Strap



Belt Clip



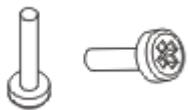
Charger



Li-ion Battery



Screws



Installation of Accessories

Installation/ removing the antenna

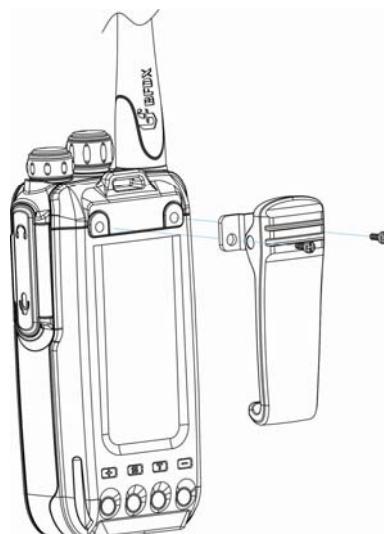
Hold the supplied antenna by its base, then screw it into the connector on the top panel of the radio until fasten.

Turn the antenna anti-clockwise to remove it.



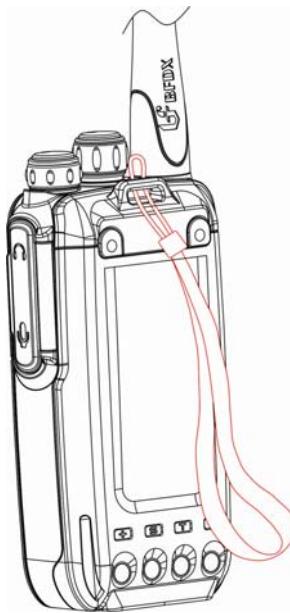
Installation/ removing the belt clip

Attach the belt clip using the two supplied 3*4mm binding screws.



Attaching/Removing the strap

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

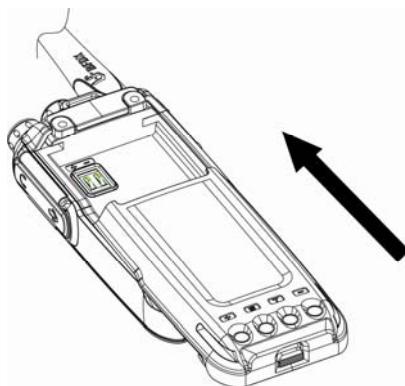


Attaching/Removing the Battery

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, that avoid to short the battery terminal;
- ◆ Battery is flammable objects, don't throw it into fire or don't use it on dangerous area.

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



To remove the battery, please turn the power off then press the release latch to unlock the battery pull the battery away from the radio.



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

Li-ion battery features

New batteries are activated from factory; please charge your battery before using it. The maximum battery capacity and performance is achieved after three full charge/ discharge cycles.

- The service life of batteries: Charge cycles time is limited, to prolong battery life try to reduce make charge by the battery remained.
- To reduce self-discharge, please remove the battery before you not in use for a long time, and store your battery in a cool, dry location.

- Charge your battery about 50% before you store it for a long time, so that can prevent to decrease the battery performance.
- As the battery is charged and discharged repeatedly, the battery capacity decreases, even if the battery is unused, the battery degrades, store battery in a high temperature will shorten its lifecycle.

Charging the Li-ion battery

- When the battery power runs low, the radio will send alert sounds, please recharge the battery.
- Please only use the battery and charger specified by BeiFeng.
- When charging a battery attached to a radio, please turn the radio off.
- Please don't remove the battery from the charger before fully charge, or the battery could suffer damage.
- Please remove the battery timely when the battery is fully charged.

Note: While the battery is charged, the ambient temperature must be within 0~40, Temperature out of the limit may reduce working life or Charging efficiency.

Charging Steps

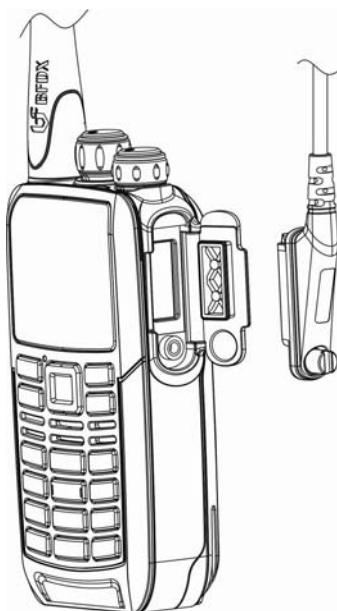
1. Place the battery or the radio is attached with a battery in the charger.
2. Plug the AC connector of the switching power into the outlet socket.
3. Making sure the battery is connected to the charger, the charging process initiates when the charger indicator glows red.

4. The charger indicator glows green when the battery is fully charged.

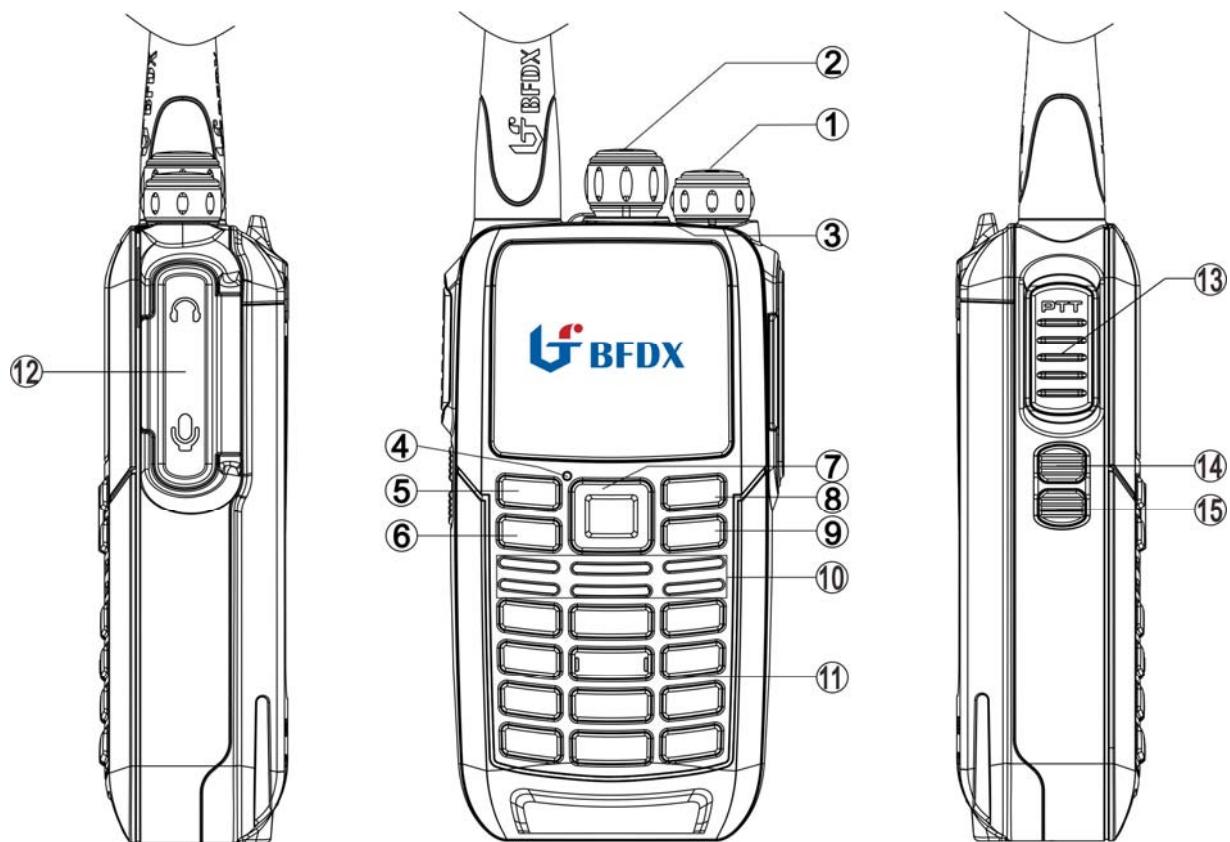
Note: Make sure the battery is connected to the charger, but the charger indicator not glow, Maybe the battery /charger has damaged or temperature out of the limit.

Attaching the Speaker/Microphone

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



Getting Acquainted



① Power switch/volume adjust keys

Turn clockwise to switch the radio power on, when the radio is turned on, rotate clockwise to increased volume, counter-clockwise to decrease the volume. Turn counterclockwise fully to switch the radio off.

② Channel Selector Knob

Turn the knob to select channel 1-16.

③ LED Indicator

1. When transmitting LED glows red;
2. When receiving LED glows green;
3. When un-programmed LED glows red;

4. When scanning LED flashes orange.

④ MIC

⑤ Left key

Press to move to the next step or store the setting.

⑥ MENU

Press to enter menu mode, you can select the desired menu item.

⑦ Selection Key

Press up or down/left or right to select the menu function item

⑧ Right key

Press to move back to the previous menu.

⑨ HOME key

Press to quickly return home screen.

⑩ Speaker

⑪ Numerical

To input numbers and letters

⑫ MIC-SP-USB Jack

Connect to optional speaker/MIC and USB programming cable.

⑬ PTT key

Press and hold down the PTT key then speak into the microphone to transmit.

⑭ Button 1

Press to activate the programmable function. (The detailed consult to basic

operation)

⑯ **Button 2**

Press to activate the programmable function. (The detailed consult to basic operation)

Basic Operation

LCD Icons

	Signal Strength
	High/Low Power
	Digital Mode
	Private Call
	Group Call
	All Call
	Scanning on
	unread message
	Inbox or Outbox Full
	Message send successfully
	Message send failed
	Read Message
	Unread Message Inbox
	Missed Call

	Keypad Locked
	disable all tone alert
	Emergency on
	VOX on
	Plug in earphone
	Direct /Talk around Mode
	Monitoring
	Connect to Computer
	Battery Capacity

Turning the 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.

Note: If you active power on password function via program software ,each time you turn on transceiver, must be enter 6 digit password, while occur password error, the transceiver will restart automatically and then input password again . When 3 times wrong in input password continuously, after it transceiver must be kill, only reprogram it then device work normal. Please enable power on password with due care.

Adjusting the volume

After the radio is power 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, the display appears : Un-programmed Channel and prompt no channel, LED indicator flash red.

Selecting a Zone

The radio supports up to 32 zones, each with a maximum of 16 channels, 32 zones all support up to 160 channels. You may select a desire zone through enter zone menu or 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.

Call

Each digital channel may preset a contact, the preset contact could be a

private call contact, a group call contact or an all call contact; 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.

Note: While enable talk permit indication feature, if the channel available, press PTT key to transmit will with a tone.

Private Call

If the feature “private call ACK” is enabled, to transmit a private call need to confirm whether it is power on or activate on the current channel.

- (1) If you preset a private call contact for current digital channel. Press PTT key to transmit a private call;
- (2) Enter Contacts menu to select the private call number you want to call, then press PTT key to transmit a private call;
- (3) Enter Contacts menu and go to manual dial menu or press programmed “Manual Dial” key, input a private call number you want to call, then press PTT key to transmit;
- (4) Enter Call Log menu to select the private call number you want to call, then press PTT key to transmit a private call;
- (5) You can set the One Touch Call key as private call feature, then press programmed key to transmit a private call.

Group Call

- (1) If you preset a group call contact for current digital channel. Press PTT key to transmit a group call;
- (2) Enter Contacts menu to select the group call number you want to call, then press PTT key to transmit a group call;
- (3) Enter Call Log menu to select the group call number you want to call, then press PTT key to transmit a group call;
- (4) You can set the One Touch Call key as group call feature, then press programmed key to transmit a group call.

All Call

- (1) If you preset an all call contact for current digital channel. Press PTT key to transmit an all call;
- (2) Enter Contacts menu to select the all call number you want to call, then press PTT key to transmit an all call;
- (3) Enter Call Log menu to select the all call number you want to call, then press PTT key to transmit an all call;

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.

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:

- **Unassigned** : The key is not assigned with any function.
- **One Touch Call 1~6** :Allow user to initiate digital group call, digital private call, call alert or send preset message via the one touch call function.
- **Manual dial** : You can manually input the private call number for calling.
- **Emergency on/off**: Allow user to make an emergency call.
- **Monitor** : Enable monitor function.
- **Backlight automatic on/off**: This function can let user to make the backlight to automatic on or still on. The light will keep on all the time when the backlight on, while you select automatic on, the light will become dark after 5 second you don't operate the key.

● **Keypad Lock:** Allows you to enable the keypad lock feature, if it is enabled you can't operate keys except PTT key and side button. Press MENU and # key to unlock.

● **Scan on/off:** Allow user to enable or disable the scan function.

● **All alert tone on/off:** Allow user to enable or disable all alert tones.

● **Battery Indication :** It's convenient to know battery capacity

● **Short Message:** This function will convenient to enter message function menu.

● **Zone toggle :** This function will convenient to enter zone selection function menu.

● **Address list :** This function will convenient to enter address list function menu.

● **Device enable :** To send an enable command to a private call contact.

● **Device Disable:** To send a disable command to a private call contact.

● **Device check :** To send a device check command to a private call contact.

● **Remote Monitor :** To send a remote monitor command to a private call contact.

● **High/low power :** Allow user to switch between high power and low power.

● **Repeater/talk around :** Allow radio set to connect through repeater or achieve standalone communication in talk around mode.

● **VOX on/off:** This function will convenient to enable VOX function, the default level is 5

● **Nuisance Delete:** While scanning on, If you don't want to receive activities on

the channel, press the programmed Nuisance Delete key to remove the channel from the scan list temporarily to delete nuisance channel temporary.

●**Permanent Monitor:** Permanent monitor feature is the same as monitor, but permanent monitor feature only can be set as long press key. And you should long press the programmed Permanent Monitor key to exit this function.

Note:

●You can assign any of the functions to a short or long programmable key-press.

Functions and Operations

Digital channel (✉)

Contacts

Press the  key to access the contact list, on the contacts, you can search address list members, add new contacts, manual dialing.

1. Group Call (拨打)

While select a contact as group call , the screen displays as following, a group call can view its ID and send message.



2. Private Call (拨打)

While select a contact as private call , the screen displays as following, a private call can view its detail、send call alert 、send message、edit name or number 、delete、send device check、 disable or enable、 send remote monitor.



●Call Alert : Call alert is used for prompting the private receiver; ask them respond to transmitter if communication is available. While receiving call alert command the radio will generate alert tone.

●Device Check : This function can check if the target radio is active in the system while don't send any tone alert to the target radio. When the radio is available, the screen displays: target radio has replied, while the radio is unavailable, the screen displays: fail!

●Remote Monitor: Allow a user to send a "Remote Monitor" request to the target device via menu. If the request is successful, you can enable the microphone of the target radio, and monitor its activities. Only the target radio is set remote monitor decode, that enable monitor its activities.

●Device enable : Allow a user to send "Device enable" command to the target killed device, to allow it to be used normally.

●Device Disable: Allow a user to send "Device Disable" command to the target device

via menu. If the device is lost or stolen, a user can use this function to disable the device. However, this device will continue monitoring air interface to receive its "Device Enable" command.

- Edit: Modify the number or name of a private call contact. Press "*" key to delete, press "#" to switch input method, the available number range is 1~16776415, name input 16 characters at most.
- Delete :Delete unwanted contacts from the address list, if private call contact is set as channel default address or call number on one touch call, its unable to delete.

3. All Call ()

While you select an all call contact, the screen displays as following:



4. Manual Dial

You can manually input the private call number for calling or sending call alert , send message ,device check, remote monitor ,device enable ,device disable.



5. New Contact

You can add a private call contact to the contact list. When edit name, press" *" key to

delete, press “#” to switch input method, name input 16 characters at most; then input number, the available number range is 1~16776415. After add a private call contact successfully, on contacts list will show new contact.



Scan

1. Scan On/Off

While current channel add scan list and the list contain 2 channels at least, you may enable the feature. Scanning allows the device to search the scan list connected to the current channel to locate qualified channel for receiving or voicing. During scanning, the icon “” flashes, when activities are detected on a channel, the radio will stay on the channel to receive current activities, the icon “” stop flashes. If you don't want to receive activities on the channel, press the programmed Nuisance Delete key to remove the channel from the scan list temporarily. To exit the scanning process, enter scan menu, switch channel or press the programmed Scan key.



Note: If the channel enables the feature “Auto Scan” via the programming software, switch to

the channel will enter scanning automatically;

While button 1 or 2 programmed as Scan on/off, press it to enable scan feature.

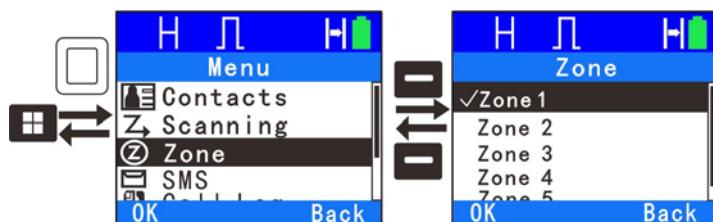
2. View/Edit List

Allow a user to view/edit the scan list via menu, "View Member" allows a user to view the scan member, deleting a member from the scan list; Add Member allow a user to add a new member to the scan list, the list contain 16 channels at most. It is not allowed to create a new scan list or delete existing scan lists from the device. Digital channel will be appear in the same scan list.



Zone

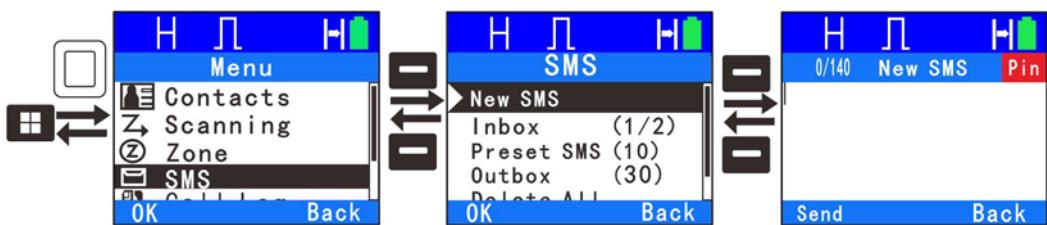
The radio supports up to 32 zones, each of zone supports 16 channels, totally 160 channels supported. Enter "Zone" menu to select a desired zone.



Messages

1. New SMS

You can edit desired text message(140 characters at most) and send it to an private call contact or group call contact, when editing a message, press “# ”key for switching input method, press “ * ” key for deletion and modification, press left or right key to switch input cursor. For non-numeric input method, key “ 1 ” is a symbol key. Key “ 0 ” is a space key. After the message is edited, you can select a contact from the address list which the message is sent to or manually dial a number to send to.



2. Inbox

The Inbox can save up to 30 received messages. Inbox the unread message displays: , read message displays: . For each message, you can choose to perform any of these operations: Reply, Forward and Delete.



3. Preset SMS

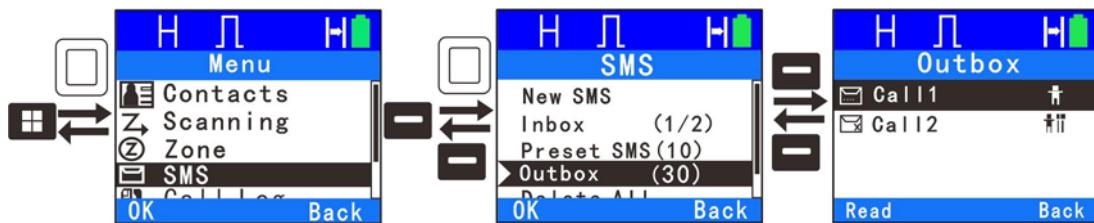
Via programming software, user can save 10 entries text messages and each of a message contains 140 characters at most on preset SMS. You can choose to edit and send any entry.



Note: Preset text messages also can assign to one touch call, and press the programmed key to send messages.

4. Outbox

Enter outbox menu, you can view the message is sent successfully or failed, outbox can save up 30 sent messages. If sent message is successful displays , you can choose to forward or delete it; If sent message is failed displays , you can choose to resend, forward or delete.



5. Delete All

This function is convenient to delete all message on inbox or outbox, Clear All will delete all messages on Inbox and Outbox at the same time ,but the preset messages can't be deleted.



Call Logs

1. Missed Call

The missed calls list can save up to 10 entries, when the memory for call logs is full, the oldest entry will be deleted automatically. You can add it to contact list or delete it.



2. Answered Calls

The answered calls list can save up to 10 entries, when the memory for call logs is full, the oldest entry will be deleted automatically. You can add it to contact list or delete it.



3. Outgoing Calls

The outgoing calls list can save up to 10 entries, when the memory for call logs is full, the oldest entry will be deleted automatically. You can add it to contact list or delete it.



4. Clear Record

This function is convenient to delete Missed call logs Answered or Dialed call

logs, Clear All will delete all call logs at the same time.



Settings

1. Settings

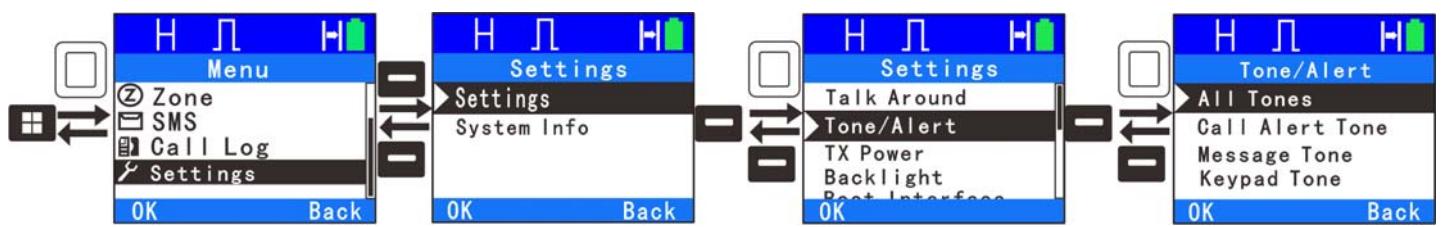
Allow a user to perform basic settings for the two-way radio.

● **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, the screen displays: , By this time TX frequency the same as to RX frequency. If switch channel , enable scan feature or restart radio will disable the feature.

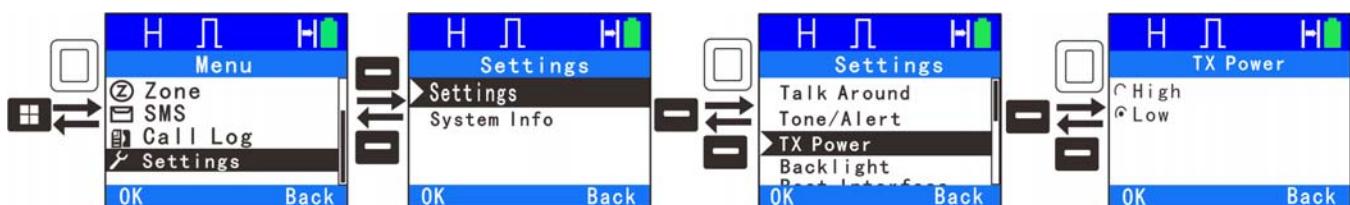


Note :To enable this function, TX frequency should be different from RX frequency, and the channel will set as allow talk around on the programming software.

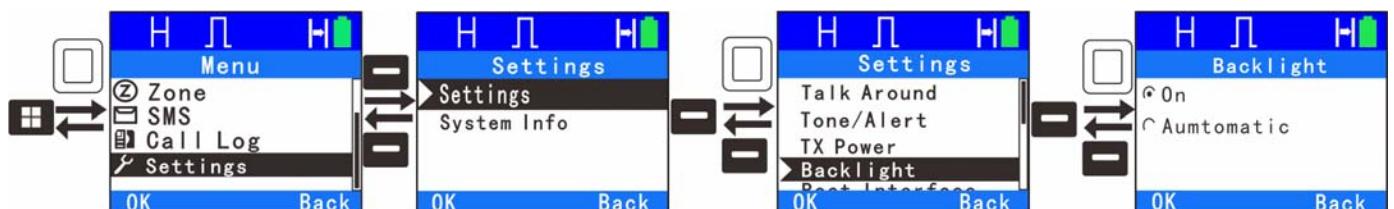
●Tone/Alerts: To set tones for your radio, tone alerts include settings of all tones, call alert tone, message tone, keypad tone. If disable all tones, all alerts will be off except emergency tone.



●TX Power : Allow a user to change the power level, there are two levels available: high (indicated by H) and lower(indicated by L).

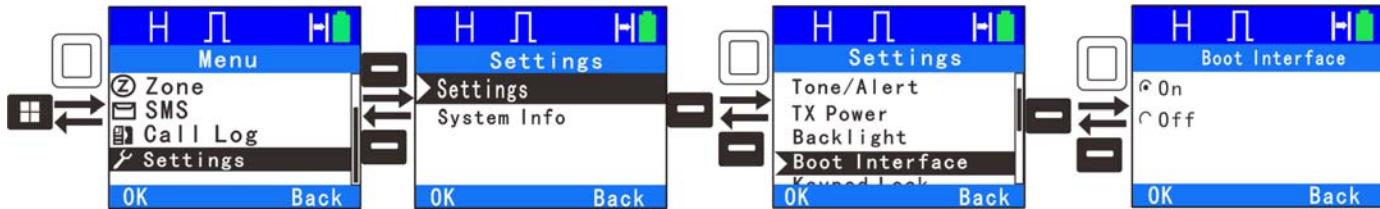


●Backlight: To set the backlight parameters, you can select on or automatic , while you select automatic on ,the light will become dark after 5 second you don't operate the key, and the light will keep on all the time when the backlight is on.

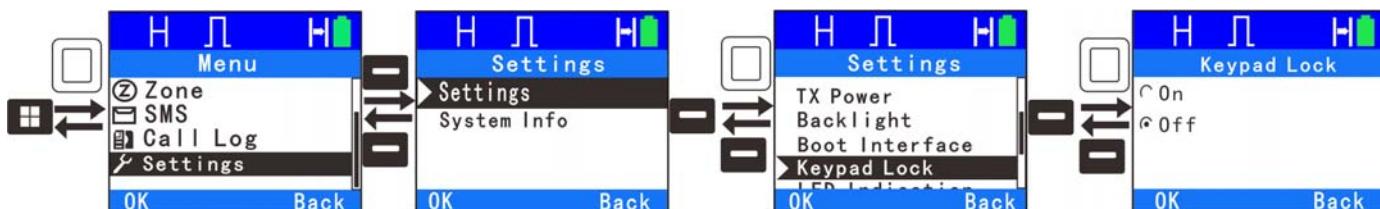


●Boot Interface: Allow a user to enable or disable the boot screen via menu. If the

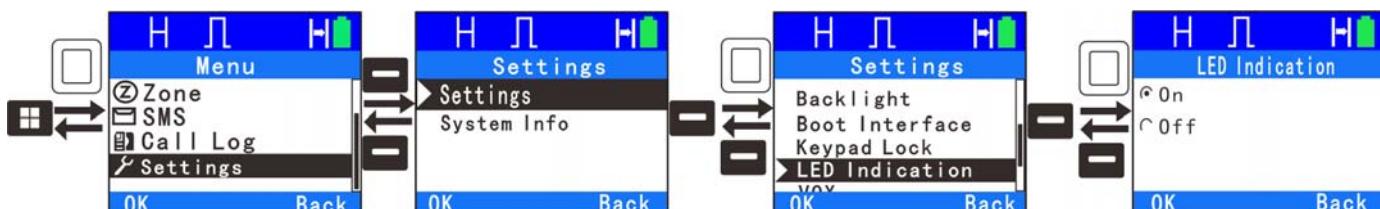
Intro screen is enabled, while the radio power on, the screen display BF Logo and device name; While the Intro screen is disable ,the screen only displays device name .



●Keypad Lock: Allow a user to enable or disable keypad lock via menu. While Keypad locked indicate: , that you can't operate the keypad except PTT key and button 1 or button 2. Press “MENU” and “#” key to unlock.

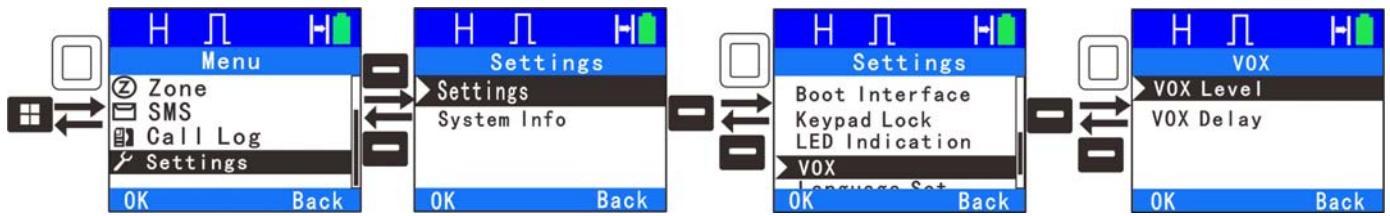


●LED indicator: To set whether to enable LED indication via menu. While disable all indicator, the screen becomes dark and Tx red indicator, Rx green indicator, scan orange indicator are off. Please use this function with due care.



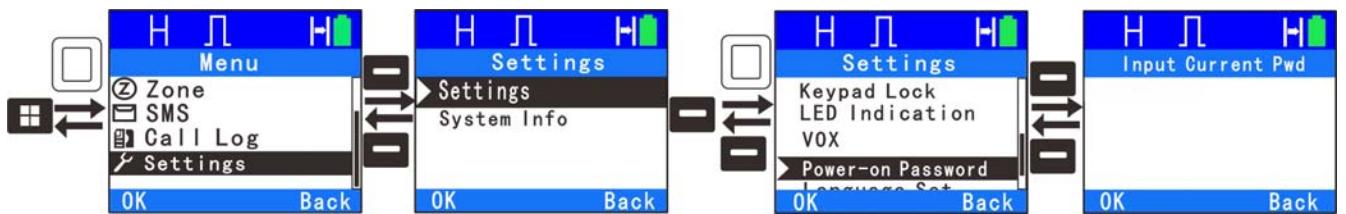
●VOX:While this function is enabled, you can enjoy hands-free communication. The radio will automatically begin transmitting when you speaking, and terminate transmitting when you stop talking with no need of PTT press. Allow user to set the VOX level (level 1-8) and VOX delay(0.5~10second) via menu.VOX on indicate by :





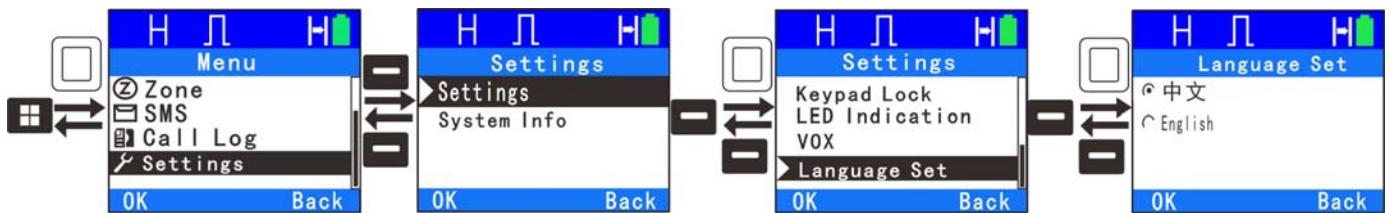
Note: The VOX feature only is used if you are using a supported headphone.

- Power-on Password: If enable power-on password feature via programming software, you can modify the password by this menu. First you need input old password correctly, then input a new password twice the same, that will modify the password successfully.



Note: This menu is effective if power on password is set via programming software.

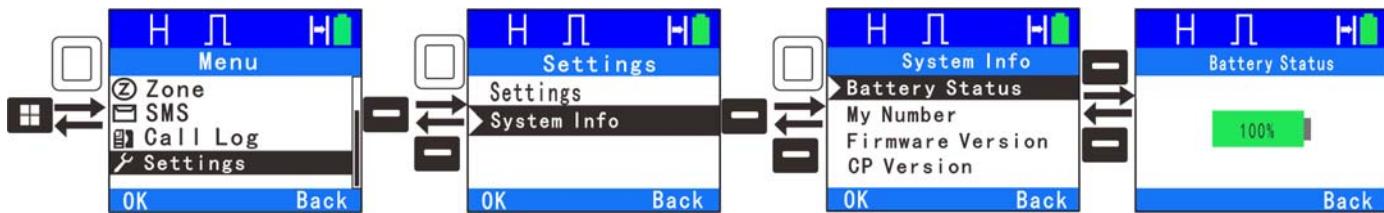
- Language: The radio supports two languages: Chinese and English.



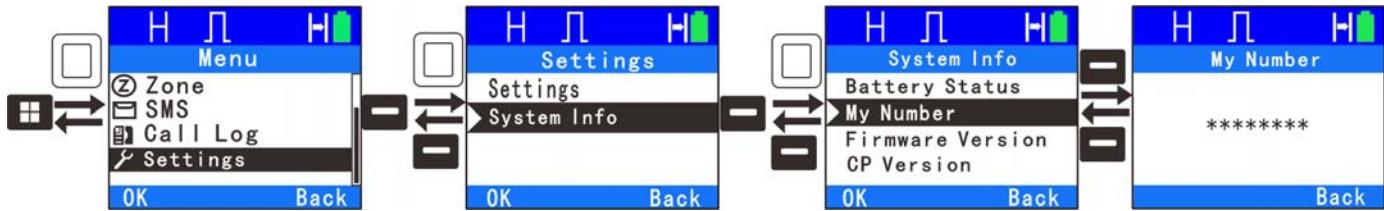
2. System Info

With this option, you can view the basic information of your radio.

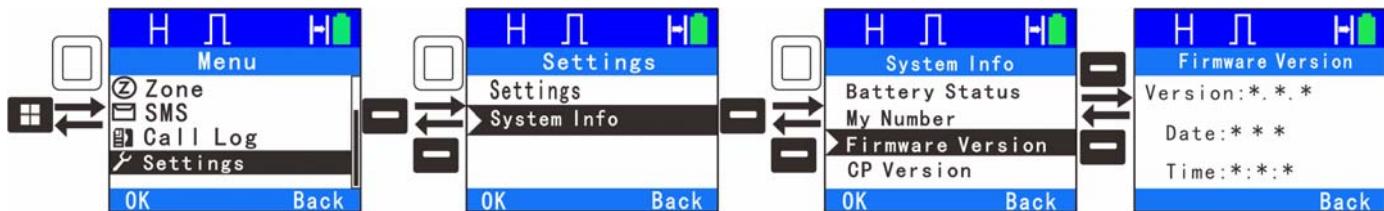
- Battery Status: To view the radio's rest battery capacity. It's convenient for user to know battery capacity and charge the battery in time.



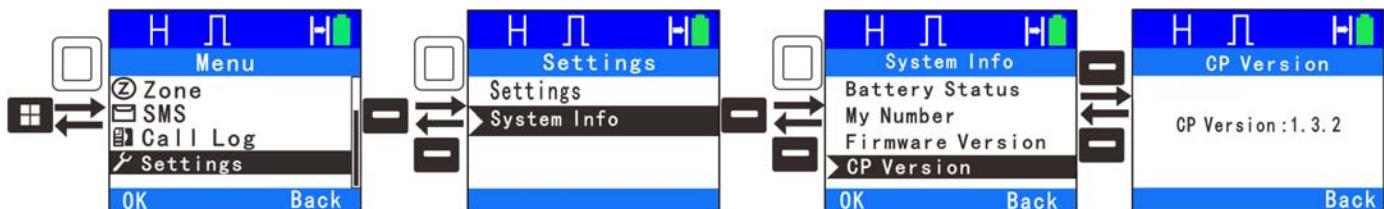
- **My Number:** Allow a user to view the radio ID number, which is same as device ID.



- **Firmware version:** View firmware version information.



- **CP Version:** To view CP version information.



Digital Emergency

In case of an emergency you can enter emergency mode to ask for help, for each emergency mode, there are three emergency types and three emergency mode available.

Emergency Type:

Regular: In emergency mode, the radio will give audible and visible indication;

Silent: In emergency mode, the radio won't give any audible or visible indication;

Silent with Voice: In emergency mode, the radio won't give any audible or visible indication, but will receive voice.

Emergency Mode:

Alarm: In this mode, you can send alarm information, while receive ACK or reach the maximum retries will exit emergency mode.

Alarm with Call: You can press programmed "Emergency On/Off" key to send emergency information, then press PTT to transmit an emergency call.

Alarm with voice to follow: You can press programmed "Emergency On/Off" key to send emergency information, then you can speak into the microphone, allowing your voice and background noise be transmitted automatically as you do not to press PTT key.

1. Send Emergency Alarm

If the current channel adds emergency system and the current channel as the emergency revert channel, press the programmed "emergency on/off" key to send alarm information, LED indicator glows red, the radio displays icon  as "regular" type.

2. Exit emergency mode

If choose regular type and emergency alarm mode, after send emergency information then receive ACK command or the alarm cycles expire, the radio will exit

the emergency mode automatically. And long press the programmed emergency key to exit the emergency mode; If choose silent or silent with voice type, press PTT key or long press programmed emergency key to exit the emergency mode.

3. Receive Emergency Information

When the feature "emergency alarm indication" is enable, if received emergency information, the radio displays icon , the transmitter's ID and name, an alarm tone will sound. To exit the emergency mode, long press the programmed emergency key.

Voice Encryption

The voice encryption can encrypt your audio signals to guarantee the privacy of your communication, via the programming 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 encryption key, otherwise the receiver is mute.

Note: This feature is effective on digital channel.

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 programming software, you can set TOT as 15-495 second.

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 warning tone will sound.

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

Battery Saver

This function 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

Low Battery Warning

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→RX low battery
internal

CTCSS Standard Frequency Table

CTCSS No.	Fre. [Hz]	CTCSS No.	Fre. [Hz]	CTCSS No.	Fre. [Hz]	CTCSS No.	Fre. [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

CDCSS NO	Positive Code	Negative Code	CDCSS NO	Positive Code	Negative Code	CDCSS NO	Positive Code	Negative Code
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			

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.