

## Index

Introduction.....	2
Including.....	3
NF-368 Diagram.....	4
Main Features.....	5
LCD Indication .....	7
Preparation for Using.....	9
Operation Guide .....	14
Functions Setting.....	15
Key Combination.....	17
Menus.....	19
Menu Description and Function Setting .....	20
Other Features and Setting.....	28
Maintenance.....	31
Troubleshooting.....	32

## Introduction to NF-368

Thanks for purchasing NANFONE UHF FM transceiver NF-368. Please read this manual carefully to learn its functions and operations before using.

With mini compact size, large LCD display, stable performance, and easy-to-use feature, transceiver NF-368 will be your best choice.

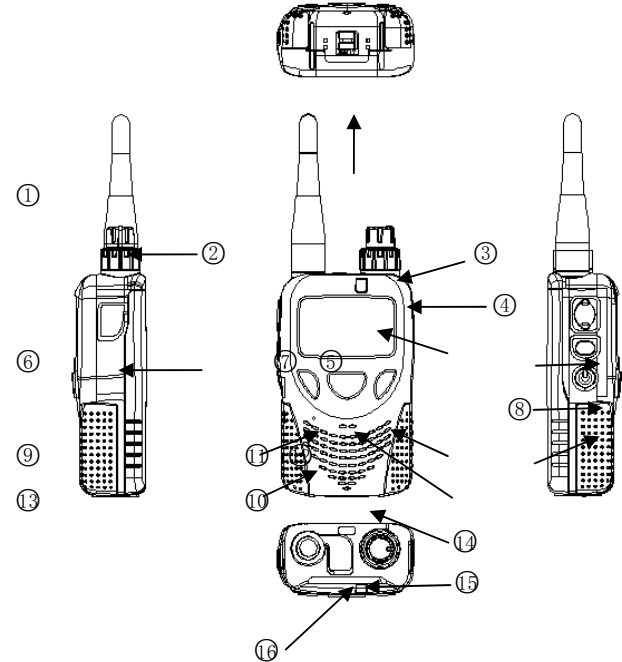
### Including

Please take the radio out carefully from the package, and check again before disposing of the packing to make sure that all the following items are contained in the packaging. If any of them are missing or damaged during transportation, please contact with the vendor for service.

**Accessories List:**

Description	Unit	Quantity
Antenna	pc	1
Belt clip	pc	1
Hand strap	pc	1
Lithium battery pack	pc	1
Charger	pc	1
User Manual	pc	1
Earphone	pc	1
Warranty card	pc	1
QC passed card	pc	1

**I .NF-368 Diagram**



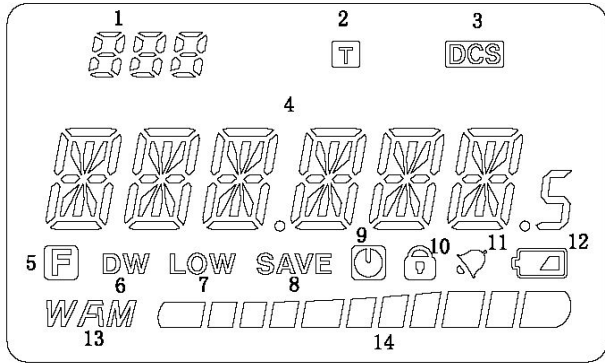
- 1. Battery snap;      2. Antenna;      3. Volume knob;
- 4. Coded selector;    5. PTT button;   6. Power supply jack;
- 7. Indicator light;    8. Monitor/FM radio; 9. FUN key;
- 10. MENU key;        11. MR key;      12. Power control button;
- 13. MIC jack;        14. Speaker;      15. Hand strap hole;
- 16. Earphone jack

## II .Main Features

- 1.Easy operation following menus with clear LCD display
- 2.Battery: 3.7V 1200mAh rechargeable Lithium battery
- 3.Frequency: 400MHz~470MHz
- 4.Wide/Narrow band selectable: 25KHz/12.5KHz
- 5.TX output power: High: 2W,Low: 0.5W
- 6.CTCSS (40) and DCS (82)
- 7.Memory channels: 99 memory channels (1 emergency channel)
- 8.TOT (Time-Out-Timer) (OFF, 30s, 60s, 90s, 120s, 150s, 180s)
- 9.VOX function (OFF/1/2/3)
- 10.Audio-call (1750KHz) function
- 11.Emergency channel operating (Emergency Alarm)
- 12.Busy channel lockout (BCLO)

- 13.Dual-frequency standby
- 14.CTCSS
- 15.DCS
- 16.Code
- 17.Scan: VFO scan/channel scan
- 18.Squelch level setting (level 0-4)
- 19.Signal/power indicator table
- 20.Background light ON/OFF
- 21.Power-save function
- 22.Monitor function
- 23.Automatically check when powered on and then display voltage
- 24.Low battery alert
- 25.Keypad indicate tone
- 26.Keypad locked
27. APO (Automatically Power Off)
- 28.FM radio function (frequency range: 87.500 ~ 108.000MHz)

### III. LCD Indication



No.	Icon	Description	Operation
1		Memorize the using memory channel No. in call-out state	[MR]
2		CTCSS	Use menu 02 and 03
3		DCS	Use menu 02 and 03
5		Activate another function	[F]

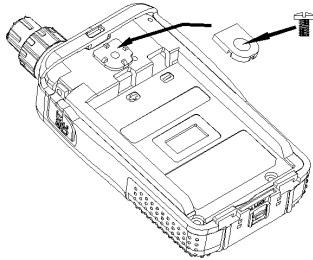
6		Dual frequency standby	Use menu 01
7		High/Low power	Use menu 13
8		Power save function	Use menu 8
9		APO	Use menu 10
10		Keypad locked	[F]+[MODE]
11		Keypad indicate tone	Menu 9
12		Low battery alert	
13		Wide/Narrow band setting	Menu 14

### IV. Preparation Before Using

#### Install belt clip overlay

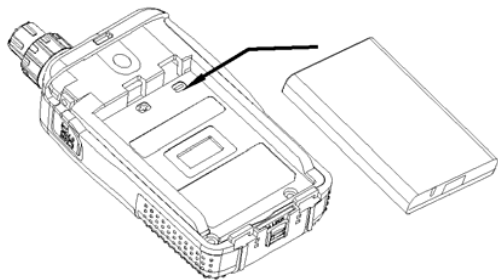
Install the belt clip overlay on the back of NF-368

rechargeable battery case as following (Usually, it has been installed well in factory.).



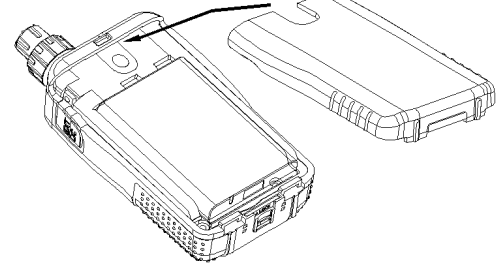
### **Install Lithium battery pack**

Put the original Lithium battery pack into the transceiver correctly as following picture shows.



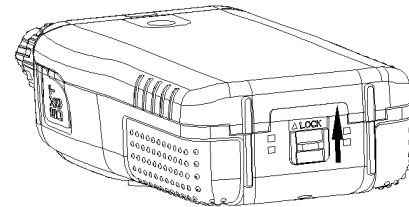
### **Install rear case**

Install the battery rear case properly as following picture.



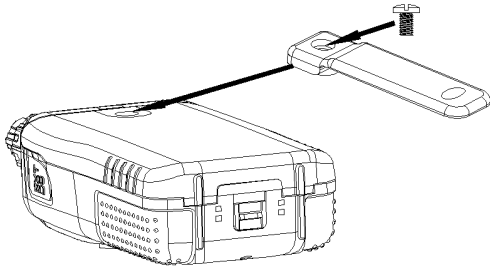
### **Fix the rear case**

As picture, pull up the button in “lock” direction to avoid the rear case sliding.



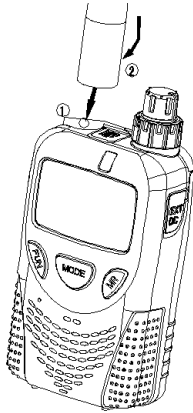
## Install the belt clip

Install the belt clip as picture.



## Install the antenna

Install the antenna as picture and rotate it clockwise till tight.

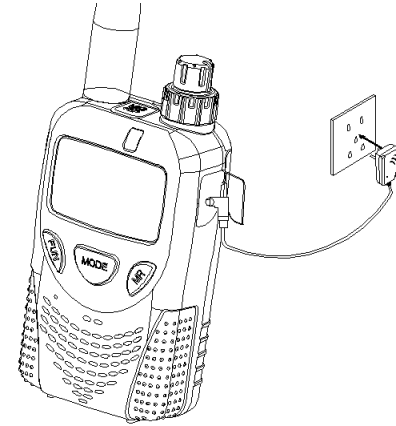


## Charge

The battery pack is without power when finished, and please charges it before using.

When used for the first time after purchased or stored over two months, the capacity of battery pack is less than normal. However, it will return normal after charged and discharged for five times.

**Please connect charger to the transceiver properly as following picture.**



## V. Operation Instruction

### Key functions:

**PTT button** TX key. Hold this key to transmit and release after transmission finished.

**POWER key** Key for powering ON/OFF, transceiver will be turned on or turned off by pressing and holding this key for 2 seconds.

**MONITOR/FM** Quickly press to monitor, and hold it to turn on or turn off the FM radio.

**DIAL knob** This knob is for main tuning, which is for operating frequency setting, function menu selecting and other adjustment.

**VOL knob** Volume control knob. Rotate it clockwise to turn up.

**F key** Quickly press it to activate another function, and hold it to make emergency call.

**MODE key** Setting functions via MODE key.

**MR key**

Quickly press it to select VFO mode or channel mode, and hold it to memorize channels.

## VI. Functions Setting

(1) Press [MODE] key to enter [01]DW dual frequency standby selecting.

(2) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter [02] CODE selecting.

(3) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter [03] CTCSS setting.

(4) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter [04] DCS setting.

(5) Press [MODE] key and then rotate the “DIAL”

knob clockwise or withershins to enter **[05]** SQL level setting.

(6) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter **[06]** BCLO busy channel lockout setting.

(7) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter **[07]** LIGHT turn on or turn off the background light.

(8) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter **[08]** SAVE to activate power-save function.

(9) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter **[09]**K TONE to turn on or turn off the keypad tone.

(10) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter

**[10]**APO to set the automatically power off function.

(11) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter **[11]**TOT to set the TX time limit.

(12) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter **[12]**VOX to adjust the VOX function.

(13) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter **[13]**POWER to select high or low power output.

(14) Press [MODE] key and then rotate the “DIAL” knob clockwise or withershins to enter **[14]**HLF DEV to select wide or narrow band.



## VII. Functions of Key Combination

### 1. [F]+[MODE] for keypad locked

Press [F] key and the **F** icon will be showed on the bottom-left corner of LCD, and then press [MODE] to lock the keypad. Repeat above steps to unlock the keypad. **L** icon will display on the LCD when keypad locked.( Operation of MODE key, MR key and DIAL key will be invalid after keypad locked. )

### 2. [F]+[MR] for scanning

**Frequency scanning in VFO mode:** Press [F] key and then press [MR] button to start scanning (channel spacing is 12.5KHZ)when there is a **F** icon on bottom left corner of the LCD; short press [MR],[MODE]or [PTT] button to stop scanning (the frequency will stay at current frequency).

**Channel scanning in channel mode:** Press [F] key and then press [MR] button to start scanning when there is a **F** icon on bottom left corner of the

LCD. Rotate the code selector clockwise to scan in ascending order, and rotate the code selector withershins to scan channels in descending order. To stop scanning, please press [MR],[MODE]or [PTT] button to stop scanning (the channel will stay at current channel).

### 3. [F]+[DIAL] Wide Range Frequency Tuning

Press [F] key and then rotate the [DIAL] knob to start tuning at 1MHz space when there is a **F** icon on bottom left corner of the LCD. Rotate the code selector clockwise to tune in ascending order, and rotate it withershins to adjust in descending order.

### 4. [PTT] + [MON / FM] for Audio Call

Press [PTT] and then [MONITOR / FM] buttons to start Audio Call (1750 KHZ) function: The [MONITOR / FM] key to exit.

## VIII. Menu Description

No.	Display & Description	Setting Contents
1	DW ( Dual-frequency standby setting)	OFF--ON
2	CODE (Code setting)	OFF/CTCSS/DCS
3	CTCSS (CTCSS setting)	67Hz—254.1HZ
4	DCS (DCS setting)	023N---754N
5	SQL ( Squelch level setting)	0---4
6	BCLO (Busy channel lockout setting)	OFF--ON
7	LIGHT (Background light setting)	OFF--ON
8	SAVE ( Power-save function setting)	OFF--ON
9	KTONG (Keypad locked or unlocked setting)	OFF--ON
10	APO ( Automatically power off function setting)	OFF—ON(30 minutes)
11	TOT (TX time limit)	OFF-15/30/45/60/75/90/...../600S

12	VOX ( VOX function setting)	OFF, level 1-3
13	POWER (High/Low power setting)	HIGH--LOW
14	HLFDEV (Wide/Narrow band selection)	OFF--ON

## IX. Menu Function Description and Setting

### 1. Dual-frequency function (DW)

It is dual channels monitor scanning function, via which it can inspect a custom monitoring channel (channel 00) at VFO mode and channel mode operation. Namely: monitor and scan the current channel frequency and 00-channel frequency. If there is signal received at monitor channel, the scan stop at that frequency.

Following is process to start dual-channel monitoring function:

1) Press [MODE] key, and then tune [DIAL] knob to enter the menu 01. And DW is displayed.

- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: OFF to turn off dual-frequency standby, and ON to activate dual-frequency standby function.
- 4) After selected, press [MODE] key to confirm.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.

## **2. CODE selection**

This feature allows your radio keeping quiet when there is no specific call. Please set it as following steps:

- 1) Press [MODE] key, and then tune [DIAL] knob to enter menu 02. And CODE is showed.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: OFF / CTCSS / DCS.
- 4) Press [MODE] key to confirm after selected.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.

## **3. CTCSS code selection**

The audio system called "consecutive single-audio squelch system ". Please set the CTCSS as following steps:

- 1) Press [MODE] key, and then tune [DIAL] knob to enter menu 03. And CTCSS displays.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: 67Hz--254.1Hz (40 groups totally).
- 4) Press [MODE] key again to confirm after selected.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.

## **4. DCS code setting**

This is a relatively new anti-jamming advanced audio system which is better than CTCSS. Please set the DCS as following steps:

- 1) Press [MODE] key, and then tune [DIAL] knob to enter menu 04. And DCS displays.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise to rotate [DIAL] knob to select: 023N-754N (totally 82 groups).

## **5. SQL level setting**

Squelch system can eliminate background noise when there is no signal received, which not only make it more comfortable at standby mode, but also significantly reduces the standby power consumption. Please set the squelch level following

steps below:

- 1) Press [MODE] key and then tune [DIAL] knob to enter menu 05. And SQL is showed.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: 0/1/2/3/4 (usually set as 1, which is the best sensitivity point).
- 4) Press [MODE] key again to confirm after selected.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.

#### **6. Busy channel lockout setting (BCLO)**

BCLO function is for prohibiting transmitter when there are other signals to prevent breaking other people's communications inadvertently. Please set it as following steps:

- 1) Press [MODE] key and then tune [DIAL] knob to enter menu 06. And BCLO is displayed.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: ON or OFF.
- 4) After selected, press [MODE] key again to confirm.
- 5) Press [PTT] key to save the new settings and exit

to normal operating mode.

#### **7. LIGHT--Background Light ON / OFF Selection**

- 1) Press [MODE] key and then tune [DIAL] knob to enter menu 07. And LIGHT displays.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: ON / OFF.
- 4) Press [MODE] key again to confirm after selected.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.

When "OFF" is selected, the backlight will automatically turn off as the transceiver is at Sleep mode.

#### **8. SAVE -- Power-saving function**

The transceiver has a very important automatic power-saving receive function, which allows the radio to enter sleep state and wake up periodically to check and receive signal. If there is call in the channel, NF368 will stay at active status and then get back to sleep state after call finished. This feature can reduce battery consumption effectively. Following is the steps to activate the power-saving

function:

- 1) Press [MODE] key and then tune [DIAL] knob to enter menu 08. And SAVE displays.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: ON / OFF.
- 4) Press [MODE] key again to confirm after selected.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.


(ON is to activate the power-saving mode: LCD shows " **SAVE** " power-saving icon and the transceiver will enter power-saving mode without signal receiving in 10 seconds at standby state. OFF is to turn off power-saving feature.)

### **9. KTONE – Keypad tone setting ON / OFF**

If the keypad tone causes inconvenience (especially operating in the quiet room), it can cancel easily as following steps:

- 1) Press [MODE] key and then tune [DIAL] knob to enter menu 09. And KTONE displays.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: ON / OFF.

- 4) Press [MODE] key again to confirm after selected.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.

(ON is for activating the keypad tone, and LCD displays icon  . OFF is to turn off keypad tone).

### **10. APO Automatically Power Off setting**

Automatically Power OFF (APO) function refers to the transceiver turns off automatically without any operation when there is no signal received in 30 minutes, which helps extend the battery life. Following is steps to start the APO function:

- 1) Press [MODE] key and then tune [DIAL] knob to enter menu 10. And APO displays.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: ON / OFF.
- 4) Press [MODE] key again to confirm after selected.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.

### **11. TOT – Time Out Timer**

Time Out Timer (TOT) feature is to limit the continuous launching over time by a safety switch.

Please follow below steps to activate TOT function:

- 1) Press [MODE] key and then tune [DIAL] knob to enter menu 11. And TOT displays.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: ON / OFF.
- 4) Press [MODE] key again to confirm after selected.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.

### **12. VOX – Voice-operated Setting**

VOX function allows launching by voice only without pressing PTT key and launching stop automatically once speak stops. Following is VOX setting process:

- 1) Press [MODE] key and then tune [DIAL] knob to enter menu 12. And VOX displays.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: ON / OFF.
- 4) Press [MODE] key again to confirm after selected.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.

**Note:** 3 = high sensitivity, which is used when there is only low background noise.

2 = Medium sensitivity, which is used in most situations.

1 = low sensitivity, which is used in situation with high background noise.

### **13. POWER -- Power Selection**

Power of NF-368 can be set as high or low power according to actual using range and surrounding to reduce battery consumption. Following is process of high and low power settings:

- 1) Press [MODE] key and then tune [DIAL] knob to enter menu 13. And POWER displays.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: ON / OFF.
- 4) Press [MODE] key again to confirm after selected.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.

(HIGH refers to high-power 2W, and LOW refers to low-power 0.5W. When LOW is selected, the LCD displays icon **LOW**).

### **14. HLF DEV -- Wide / Narrow band selection**

In many areas, the required channel spacing is very small, which need to reduce the modulation bandwidth of launching to avoid interference to adjacent channels. Please adjust settings following steps below:

- 1) Press [MODE] key and then tune [DIAL] knob to enter menu 14. And HLF DEV displays.
- 2) Press [MODE] key again to enter the menu.
- 3) Clockwise or counterclockwise rotate [DIAL] knob to select: ON / OFF.
- 4) Press [MODE] key again to confirm after selected.
- 5) Press [PTT] key to save the new settings and exit to normal operating mode.  
(ON is to turn on narrowband 12.5KHz, and OFF is to activate wideband 25KHz. When OFF is selected, there is a **W** icon display on the bottom left corner of the LCD.)

## **X. Other features and settings**

### **1. Channel memorization:**

- A) Conventional channels memorization, numbered from 01-99.
- B) One special memorized channel (emergency

channel), No. 00.

Channel memorizing steps are as follow:

- 1) At VFO mode, select the required frequency, as well as setting the required CTCSS and DCS.
- 2) Hold the [MR] key for 2 seconds till display channel 00-99 flashes on the LCD. And then rotate [DIAL] knob and select a channel among 00-99 channels.
- 3) Press [MR] key again to store frequency and other data into the channel.
- 4) It is still working at the frequency mode (VFO) at this time. Meanwhile, repeating above steps to input another frequency and save it to other channels.

(Note: To launch and receive different frequency needs to programmed with Frequency Programmed Software)

### **2. Emergency channel operations (emergency calling function)**

NF-368 is built-in a very useful “emergency call” feature. Hold the [F] key for over 1 second and the

"emergency call" function can be activated. At this time:

- A) The radio switch to the most commonly used channel (OO-channel) to launch.
- B) The red indicator light flashes.
- C) The radio releases loud alarm sound.
- D) This function can be turned off by pressing launch button.

**When come across danger while walking outdoors, this function allows alarming to the family quickly. Loud alarm sound may set back attack from gangster and avoid hurt.**

### **3. FM Radio (FM)**

- 1) Hold [MONITOR / FM] button once for over 2 seconds to enter FM radio receiving mode.
- 2) Rotate [DIAL] knob to tune the frequency (the frequency range is among 87.5 ~ 108.0MHz, and step is 100KHZ).
- 3) Hold the [MONITOR/FM] key for over 2 seconds again or press [PTT] button to exit FM

radio mode.

★ At FM radio state, walkie-talkie function retains priority always, which means FM radio function exits automatically and turns to transceiver communication once there is same frequency signal received at FM radio receiving mode.

★ At FM radio frequency mode: FM radio channel memorizing mode can be entered by pressing [MR] key (there is 15 stored channels)

★ FM Radio Scanner

① Scanning frequency: at FM radio frequency mode, press [F] key and then [V / M] key is for whole frequency scanning: start from the current frequency to scan the whole frequency range. Clockwise rotate the encoder to scan from low to high and anti-clockwise rotate to scan in descending order. It stays when there is signal scanned. Rotate the encoder to continue to scan up or down, and press any key to exit.

② Channel scanning: at FM radio frequency mode,



press [V / M] key once to enter channel state. And press [F] and [MR] keys to enter channel scanning. Clockwise rotate the encoder to scan channels from low to high and anti-clockwise rotate to scan in descending order. It stays when there is signal scanned. Rotate the encoder to continue to scan up or down, and press any key to exit.

★ **radio-channel memorizing (The same as transceiver channel memorization)**

## ◆ Maintenance

Transceiver NF-368 you purchased is an exactitude design electronic products and please use it carefully. Following maintenance ways may help extend its lifetime.

1. Please don't try to disassemble the transceiver because non-technicians' processing may cause damage to the device.
2. To use stable power supply, please connect the specified USB cable to the DC jack of the transceiver.

3. Please don't put the transceiver in sun or hot place for long time, because the high temperature will shorten use life of electronic parts and cause distortion to plastic parts.

4. Please keep the transceiver dry, because rain and moisture will erode the electronic circuits.

5. Please power off the transceiver and remove its battery pack immediately once there is peculiar smell or smog emit from the device.

## ◆ Troubleshooting

Trouble	Solution
No power	<ul style="list-style-type: none"> <li>● The battery pack has been exhausted. Please change a new battery or recharge the battery.</li> <li>● The battery pack may be not installed correctly. Please install it again.</li> </ul>
The battery used out soon after recharged.	<ul style="list-style-type: none"> <li>● The use-life of the battery is over, please change new battery.</li> </ul>
Unable to talk with	<ul style="list-style-type: none"> <li>● Please check the</li> </ul>

<p>other members in the same group.</p>	<p>frequency and CTCSS/DCS you use are the same as other members use in the same group.</p> <ul style="list-style-type: none"> <li>● The distance between you and other group members may be too far. Please check if you are in the cover range of other group transceivers.</li> </ul>
<p>Other (not from group members) sound heard in channels.</p>	<ul style="list-style-type: none"> <li>● Please change your CTCSS/DCS NO. And it has to change all signal sound of the group transceivers.</li> </ul>