NEP-Series User Manual

E-TECH Co., Ltd.

E-TECH

LCD Display & Icons

Channel: 001

Symbol	Description	Symbol	Description
📶	Transmission or Reception Status	VOX	VOX
HL	Power level Indicator "H" is high power, "L" is low power.	🔒	Key Lock
Scan	Scan	◐	Scrambler
🔔	Alert(Beep) When beep sound is on	T	Tone Indicator When Tone is set up with frequency
🔋	Battery Level	Compander	Compander

1. Package Contents

- Main body (NEP-Series)
- Lithium ion battery
- Desktop rapid charger
- Antenna
- Hand strap
- Adapter
- Belt clip
- User Manual

* The contents may be changed on request.

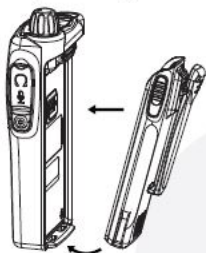# 2. Getting Started

2-1 Turning Your Radio On/Off

- Turn the volume/power switch clockwise to turn the radio on.
- Turn the volume/power switch counter-clockwise to turn the radio off until you hear ticking sound.

2-2 Installing the Antenna

- Turn the antenna clockwise on the antenna connector of the main body.

2-3 Installing the Battery

<Attaching the Battery>

- Fit the extensions at the bottom of the battery into the slots at the bottom of the radio's body.
- Press the top part of the battery towards the radio until you hear a click.

<Removing the Battery>

- Turn off the radio, if it is turned on.
- Slide the battery latches, on both sides of the battery, downwards.
- Pull the top part of the battery away from the radio's body, and remove the battery.

When You Charge

New batteries or unused batteries for long time should be charged before using the radio. If the voltage of battery is reduced, call distance will shorten, and the device cannot work its full performance.
Please charge the battery when it is in the following state.

- When red lamp on the front side of the product flickers during transmission or reception (0.5s cycle)
- When the battery icon on the LCD flickers
- When low battery alarm sound of "Beep~ Beep~" occurs during use.

How to Charge

- Insert the charger adapter into general power outlet. (AC100-240V)
- Turn off the radio when charging the radio attached with battery.
- The charger has two slots. The front slot can charge the radio attached with the battery, and the back slot can only charge a battery.
- After charging is done, the green lamp is on, but additional charging for about 30 minutes is continued for complete charging.
- Charging display lamp

Operation Status	Color
Charging	Red LED on
Completed	Green LED on
Error occurred	Red LED flickers

3. Function

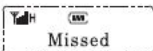## 3-1 Menu Navigation Chart
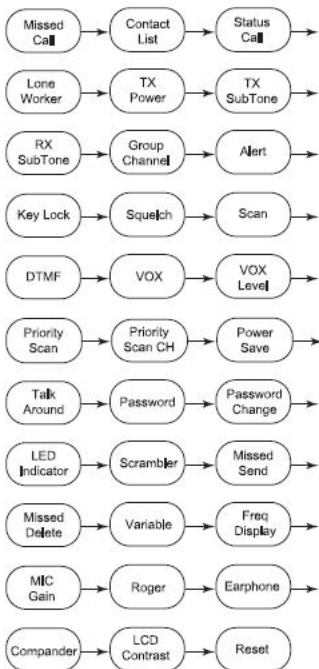
* Functions can be changed without notice for performance improvement

3-2 Missed Call List

If there is a call unchecked, the display is on. The list is saved by order of arrival, and the recent call is on the display. If Status Call is set, the status call transmits when you have a call.

1) ⬭ Menu.

```
 T⬚H   ⬚
         Missed
```

2) Use ⬭ ⬭ buttons until 'Missed' appears.

3) Select ⬭

4) Use ⬭ ⬭ and check the list.
   If there is no missed call, "Not Found" is displayed. Up to 16 calls can be stored, so that the 17th call is saved after the 1st call is deleted. If it is the status call, "S-" displays.

5) Select ⬭

3-3 Contact List

The contact list is the call received.

1) ⬭ Menu

```
 T⬚H   ⬚
         Contact
```

2) Use ⬭ ⬭ buttons until 'Missed' appears.

3) Select ⬭

4) Use ⬭ ⬭ and check the list.
   If there is no missed call, "Not Found" is displayed. Up to 16 calls can be stored, so that the 17th call is saved after the 1st call is deleted. If it is the status call, "S-" displays.

5) You can send the list selected when pushing the PTT button.

3-4 Status Call List

You can send the short message.

1) ⬭ Menu

```
 T⬚H   ⬚
         Status
```
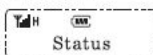
2) Use ⬭ ⬭ buttons until 'Status' appears.

3) Select ⬭

4) Use ⬭ ⬭ and choose the message you want to send.

5) Press the PTT button, then the message sends

3-5 Lone Worker

Option for use of Lone Worker function can be selected.

1) ⬭ Menu

```
 T⬚H   ⬚
         Loneworker
```
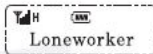
2) Use ⬭ ⬭ buttons until 'Lone Worker' appears.

3) Select ⬭

4) Use ⬭ ⬭ to set ON or OFF.

5) Select ⬭

3-6 TX Power
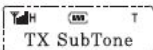
TX power can be selected.

1) Menu

> TX Power

2) Use ⏶ ⏷ buttons until 'TX Power' appears.

3) Select

4) Use ⏶ ⏷ to set HIGH or LOW.

5) Select

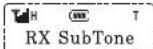## 3-7 TX Sub Tone

TX sub tone can be changed.

1) Menu

> TX SubTone

2) Use ⏶ ⏷ buttons until 'TX Sub Tone' appears.

3) Select

4) Use ⏶ ⏷ to set wanted sub tone, 'CTCSS: 001 ~ 053', 'CDCSS: 101 ~ 204', 'CUSTOM: 001 ~ 073'

5) Select
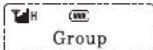
3-8 RX Sub Tone

RX sub tone can be changed.

1) Menu

> RX SubTone

2) Use ⏶ ⏷ buttons until 'RX Sub Tone' appears.

3) Select

4) Use ⏶ ⏷ to set wanted sub tone, 'CTCSS: 001 ~ 053' or 'CDCSS: 101 ~ 204'

5) Select

3-9 Group Channel

Use of group channel function can be selected.

1) Menu

> Group

2) Use ⏶ ⏷ buttons until 'Group' appears.

3) Select

4) Use ⏶ ⏷ to move to the wanted group channel. (Channels: 01 ~ 10)

5) Select

3-10 Alert Sound
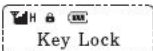
Use of alert sound can be selected.

1) ⌇ Menu

▼⊿H ♪(▩)	
Alert	

2) Use ⌃ ⌄ buttons until 'Alert' appears.

3) Select ⌇

4) Use ⌃ ⌄ to set ON or OFF.

5) Select ⌇

3-11 Key Lock

Use of key lock function can be selected.

1) ⌇ Menu

▼⊿H 🔒(▩)	
Key Lock	

2) Use ⌃ ⌄ buttons until 'Key Lock' appears.

3) Select ⌇

4) Use ⌃ ⌄ to set ON or OFF.

5) Select ⌇

3-12 Squelch Level

Squelch level can be adjusted.
(Squelch level is between 00 ~ 09.)

1) ⌇ Menu

▼⊿H (▩)	
Squelch	

2) Use ⌃ ⌄ buttons until 'Squelch' appears.

3) Select ⌇

4) Use ⌃ ⌄ to move from default level(level: 04) to the wanted level.

5) Select ⌇

3-13. Scan

Use of scan function can be selected.

1) ⌇ Menu

▼⊿H (▩) ↪	
Scan	

2) Use ⌃ ⌄ buttons until 'Scan' appears.

3) Select ⌇ (Scan starts right away)

4) Press the PTT button to stop

3-14 DTMF

Use of DTMF function can be selected.

1) ⌣ Menu

> ▟H ▭
>   DTMF

2) Use ⌃ ⌄ buttons until 'DTMF' appears.
3) Select ⌣
4) Use ⌃ ⌄ to set Disable/Encoder/ Encoder + Decoder.
5) Select ⌣

3-15 VOX

Use of VOX function can be selected.

1) ⌣ Menu

> ▟H ▭◌
>   VOX

2) Use ⌃ ⌄ buttons until 'VOX' appears.
3) Select ⌣
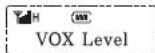4) Use ⌃ ⌄ to set ON or OFF.
5) Select ⌣

3-16 VOX Level

VOX detection level can be configured.

1) ⌣ Menu

> ▟H ▭
>   VOX Level

2) Use ⌃ ⌄ buttons until 'VOX Level' appears.
3) Select ⌣
4) Use ⌃ ⌄ to move from default level(level: 08) to the wanted level. (Range of VOX level is 01 ~ 15.)
5) Select ⌣

3-17 Priority Scan

Use of scanning function for priority channel can be selected.

1) ⌣ Menu

> ▟H ▭
>   P Scan

2) Use ⌃ ⌄ buttons until 'P Scan' appears.
3) Select ⌣
4) Use ⌃ ⌄ to set ON or OFF.
5) Select ⌣

3-18 Priority Scan Channel

Channel to be scanned when using scan function can be configured.

1) ⏺ Menu

> ▾ᴴ (ᴀᴺ)
> P Scan Ch

2) Use ⏶ ⏷ buttons until 'P Scan Ch' appears.

3) Select ⏺

4) Use ⏶ ⏷ to move to the channel for which priority scan is to be used.
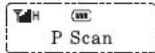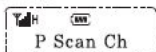
5) Select ⏺

3-19 Power Save

Use of power save mode can be selected.

1) ⏺ Menu

> ▾ᴴ (ᴀᴺ)
> Power Save

2) Use ⏶ ⏷ buttons until 'Power Save' appears.

3) Select ⏺

4) Use ⏶ ⏷ to set ON or OFF.

5) Select ⏺

3-20 Talkaround

Use of Talkaround function can be selected.

1) ⏺ Menu

> ▾ᴴ (ᴀᴺ)
> Talkaround
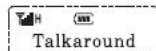
2) Use ⏶ ⏷ buttons until 'Talkaround' appears.

3) Select ⏺

4) Use ⏶ ⏷ to set ON or OFF.

5) Select ⏺

3-21 Password

Use of password function can be selected.

1) ⏺ Menu

> ▾ᴴ (ᴀᴺ)
> Password
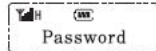
2) Use ⏶ ⏷ buttons until 'Password' appears.

3) Select ⏺

4) Use ⏶ ⏷ to set ON or OFF.

5) Select ⏺

3-22 Password Change

Password can be changed.
(Old Password is '1234'.)

1) ⏻ Menu

> 📶H 🔋
> Psw Change
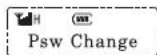
2) Use ⬆⬇ buttons until 'Psw Change' appears.

3) Select ⏻

4) Use ⬆⬇ to select numbers and letters. Move digits with and enter the old password, "1234".

5) Use ⬆⬇ to selected wanted number(0 ~ 9) or alphabet (A ~ Z). Select ⏻ (move digit) and enter new password. Once 4-digit password is entered, the device automatically exits to menu screen.

3-23 LED Indicator

Use of LED indicator lamp function can be selected.

1) ⏻ Menu

> 📶H 🔋
> LED Indicator
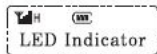
2) Use ⬆⬇ buttons until 'LED Indicator' appears.

3) Select ⏻

4) Use ⬆⬇ to set ON or OFF.

5) Select ⏻

3-24 Scramble Setting

Use of scramble function can be selected.

1) ⏻ Menu

> 📶H 🔋
> Scramble
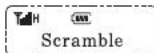
2) Use ⬆⬇ buttons until 'Scramble' appears.

3) Select ⏻

4) Use ⬆⬇ to set ON or OFF.

5) Select ⏻

3-25 Send Missed Call

Re-send the missed call list.

1) ⏻ Menu

> 📶H 🔋
> Miss Send
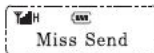
2) Use ⬆⬇ buttons until 'Miss Send' appears.

3) Select ⏻

4) Use ⬆⬇ and choose the list you want to send.

5) Press the PTT button, then the list sends.

3-26 Delete Missed Call

You can delete the missed call list.

1) ⬤ Menu

```
┌──────────────────┐
│ ▚H    ▭          │
│      List Delet  │
└──────────────────┘
```
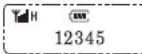
2) Use ⬆⬇ buttons until 'List Delete' appears.

3) Select ⬤

4) Use ⬆⬇ and choose the list you want to delete.

5) Select ⬤

3-27 Send Variable Codes

Send a call with a prearranged code

1) ⬤ Menu

```
┌──────────────────┐
│ ▚H    ▭          │
│      Variable    │
└──────────────────┘
```
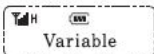
2) Use ⬆⬇ buttons until 'Variable' appears.

3) Select ⬤

```
┌──────────────────┐
│ ▚H    ▭          │
│      12345       │
└──────────────────┘
```

4) Use ⬆⬇ (change numbers), ⬤ (move digits), and set the code.

5) Press the PTT button, and then send the code.

3-28 Frequency Display

You can display the frequency on the LCD.

1) ⬤ Menu

```
┌──────────────────┐
│ ▚H    ▭          │
│      Freq Display│
└──────────────────┘
```
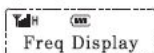
2) Use ⬆⬇ buttons until 'Freq Display' appears.

3) Select ⬤

4) Use ⬆⬇ and choose 'On': frequency, or 'Off': channel.

5) Select ⬤

3-29 MIC Gain

You can adjust the microphone sensitivity.

1) ⬤ Menu

```
┌──────────────────┐
│ ▚H    ▭          │
│      MIC Gain    │
└──────────────────┘
```

2) Use ⬆⬇ buttons until 'MIC Gain' appears.

3) Select ⬤

4) Use ⬆⬇ choose the gain level (00~05).

5) Select ⬤

3-30 Roger

Use of roger sound function can be selected.

1) ☞ Menu

> 📶H 🔋
> Roger
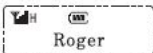
2) Use △ ▽ buttons until 'Roger' appears.
3) Select ☞
4) Use △ ▽ to set ON or OFF.
5) Select ☞

3-31 Earphone

(When accessories are used) Use of earphone function can be selected to prevent a hearing loss.

1) ☞ Menu

> 📶H 🔋
> Earphone
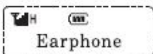
2) Use △ ▽ buttons until 'Earphone' appears.
3) Select ☞
4) Use △ ▽ to set Normal / Earphone Only / Earphone Auto.
5) Select ☞

3-32 Compander

Use of Compander function can be selected.

1) ☞ Menu

> 📶H 🔋 📖
> Compander

2) Use △ ▽ buttons until 'Compander' appears.
3) Select ☞
4) Use △ ▽ to set ON or OFF.
5) Select ☞

3-33 LCD Contrast

LCD contrast can be adjusted.

1) ☞ Menu

> 📶H 🔋
> LCD Contrast
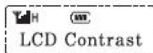
2) Use △ ▽ buttons until 'LCD Contrast' appears.
3) Select ☞
4) Use △ ▽ to adjust the contrast.
5) Select ☞

3-34 Reset

Use of reset function can be selected.

1) Menu

```
Reset
```

2) Use ⏶ ⏷ buttons until 'Reset'
   appears.
3) Select
4) Use ⏶ ⏷ to set ON or OFF.
5) Select

3-35 Information

You can check the information of the radio.

1) Menu

```
Information
```
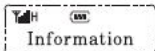
2) Use ⏶ ⏷ buttons until 'Information'
   appears.
3) Select
4) Use ⏶ ⏷ to see.

S/W: X.XX.XX

Voltage: X.XXV

A/S Center: XXX-XXX-XXXX

CTCSS/DCS TONE

CTCSS

NO	Freq (Hz)	NO	Freq (Hz)	NO	Freq (Hz)	NO	Freq (Hz)
001	67.0	015	110.9	029	179.9	043	196.6
002	71.9	016	114.8	030	186.2	044	199.5
003	74.4	017	118.8	031	192.8	045	206.5
004	77.0	018	123.0	032	203.5	046	229.1
005	79.7	019	127.3	033	210.7	047	254.1
006	82.5	020	131.8	034	218.1	048	71.0
007	85.4	021	136.5	035	225.7	049	165.5
008	88.5	022	141.3	036	233.6	050	171.3
009	91.5	023	146.2	037	241.8	051	177.3
010	94.8	024	151.4	038	250.3	052	198.0
011	97.4	025	156.7	039	069.3	053	202.7
012	100.0	026	162.2	040	159.8		
013	103.5	027	167.9	041	183.5		
014	107.2	028	173.8	042	189.9		

DCS

NO	Code	NO	Code	NO	Code	NO	Code	NO	Code	NO	Code
101	023	119	131	137	261	155	431	173	654	191	252
102	025	120	132	138	263	156	432	174	662	192	255
103	026	121	134	139	265	157	445	175	664	193	266
104	031	122	143	140	271	158	464	176	703	194	274
105	032	123	152	141	306	159	465	177	712	195	325
106	043	124	155	142	311	160	466	178	723	196	332
107	047	125	156	143	315	161	503	179	731	197	356
108	051	126	162	144	331	162	506	180	732	198	446
109	054	127	165	145	343	163	516	181	734	199	452
110	065	128	172	146	346	164	532	182	743	200	454
111	071	129	174	147	351	165	546	183	754	201	455
112	072	130	205	148	364	166	565	184	053	202	462
113	073	131	223	149	365	167	606	185	122	203	523
114	074	132	226	150	371	168	612	186	036	204	526
115	114	133	243	151	411	169	624	187	145		
116	115	134	244	152	412	170	627	188	212		
117	116	135	245	153	413	171	631	189	225		
118	125	136	251	154	423	172	632	190	246		

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SAFETY TRAINING INFORMATION

Your FM radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as "Occupational Use Only", meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is NOT intended for use by the "General Population" in an uncontrolled environment.

This radio has been tested and complies with the FCC RF exposure limits for "Occupational Use Only." In addition, your FM radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.

- American National Standards Institute (C95.1 – 1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

- American National Standards Institute (C95.3 – 1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave.

Restricted to occupational use to satisfy
FCC RF energy exposure limits.
See user manual for awareness and
control info.

- **DO NOT** operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with

this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this radio.

- **DO NOT** transmit for more than 50% of total radio use time ("50% duty cycle"). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the "TX indicator" lights red. You can cause the radio to transmit by pressing the "PTT" switch.

- **ALWAYS use** Icom authorized accessories (antennas, batteries, belt clips, speaker/mics, etc). Use of unauthorized accessories can cause the FCC RF exposure compliance requirements to be exceeded.

- **ALWAYS keep** the antenna at least 2.5cm (1 inche) away from the body when transmitting and only use the belt-clips which supplied when attaching the radio to your belt, etc., to ensure FCC RF exposure compliance requirements are not exceeded. To provide the recipients of your transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from mouth, and slightly off to one side.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates within the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, your Icom radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. **DO NOT** operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void user's authority to operate the equipment.