

-  Mesh speaker
-  Stainless steel
-  Output Power: 10W
-  Battery Capacity: 4000mAh

**solid&abrable**

**Prevent the iron scrap from pasting**

**Antimagnetic**

## USER'S MANUAL



4009919912



4009919912

**NUT**

FM PORTABLE  
RADIO  
www.sznut.com

## 使用说明书

**防磁** 

**防铁屑** 

**坚固耐磨** 

-  电池容量4000mAh
-  输出功率10W
-  超长待机350小时
-  不锈钢网状喇叭

鸣谢！

感谢您惠购 **NUT** 品牌系列对讲机.这部对讲机设计新颖,功能强大,性能稳定且易于操作,我们深信本产品的质量和功能将会使您感到满意.

根据《中华人民共和国无线电管理条例》规定:

购买、使用本设备属于设置使用无线电台(站)的行为,必须依法办理设台审批手续,领取无线电台执照。在使用设备过程中,应当按照电台执照核定的项目工作。擅自设置使用无线电台(站)、干扰无线电业务、不按核定项目工作以及其他违反无线电管理法规的行为,由无线电管理机构给予行政处罚。严重的无线电违法行为,还可能触犯《刑法》第288条或《治安管理处罚法》第28条,将被处以三年以下有期徒刑、拘役或者管制,并处或者单处罚金的刑事处罚或者由公安机关处以拘留的行政处罚。

功能特点

- 输出功率10W
- 不锈钢网状喇叭
- 防磁、防铁屑
- 采用国际最新聚合物锂离子电池
- 外壳采用进口PC材料,坚固耐磨
- 超长待机350个小时
- 电脑编程
- 语音报号(中/英文)
- 照明功能
- 数字/模拟亚音频
- 身份码及发码设置 ( PTT-ID )
- 信道扫描
- 发射定时
- 低电提示
- 宽/窄带选择
- 调整静噪等级
- 高/低功率选择
- 双守候
- 双音多频 ( DTMF)信号
- 发送1750信号
- 尾音消除
- 提示音

## 使用前注意事项

- ▶ 请将对讲机及其所有部件和配件放在小孩子接触不到的地方。
- ▶ 请不要试图拆开对讲机，非专业人员对对讲机的处理可能会造成损坏。
- ▶ 请使用本公司配套的电池组及充电器，以免损坏对讲机。
- ▶ 请使用本公司配套的天线，以免缩短通讯距离。
- ▶ 请不要将对讲机长时间暴露于阳光下，或放在过热的地方。
- ▶ 请不要将对讲机放在有灰尘或潮湿的地方。
- ▶ 请不要用烈性化学制品，清洗剂或强洗剂清洗对讲机。
- ▶ 未安装天线时，请不要发射。
- ▶ 如果发现对讲机发出异味或烟雾，请立即关断对讲机的电源，并且从对讲机取下电池组，并与九伯通经销商联络。

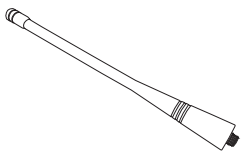
## ⚠ 注意

- 易爆环境（气体、粉尘及烟雾等）
- 在加油或者停车于加油站时，请关闭对讲机电源。

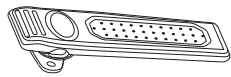
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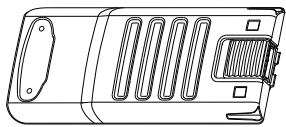
⚠ 请小心从包装箱内取出对讲机,我们建议在废弃包装材料之前确认一下箱内是否有下列物品。



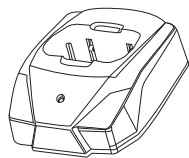
天线



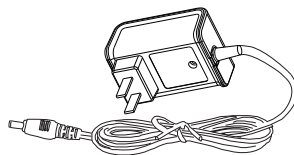
皮带夹



聚合物锂电池 7.2V



充电器



火牛



产品说明书

### 充电须知(1)

对Li-ion电池组充电, 注意事项:

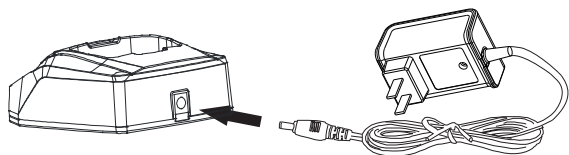
- ① 电池在出厂时未充电,请在使用前先进行充电。
- ② 在购买后或长期存放(两个月以上)后,第一次对电池充电不能使电池达到它的通常使用容量,应反复充/放电两、三次后,电池容量才能达到正常的使用容量。

**【警告】** 1. 如果电池已经完全充电,请勿再行充电,否则,电池的寿命会缩短或受损。  
 2. 当电池充电饱和时,请将它从电池充电器上取下。  
 3. 请勿短路电池端子或将电池丢弃于火中。  
 4. 切勿擅自拆卸电池的外壳。

- ③ 在充电前,请将装有Li-ion电池的对讲机电源关闭.若使用正在充电的对讲机,则会妨碍电池的正常充电。
- ④ 在完全正确的充电后,使用时间不增加,则表示电池的寿命已到,请更换新电池。
- ⑤ 随带的电池的平均使用时间为14个小时.平均使用时间是以5%发射时间、5%接收时间和90%待命时间进行计算的。

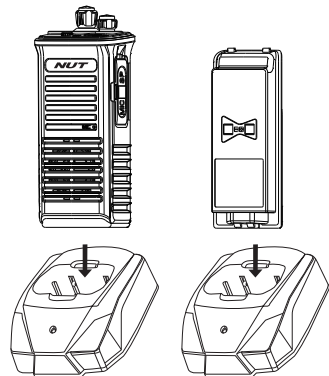
## 充电须知(2)

- 1 先将“火牛”的输出小插头插入“充电器”后的插座上，再将“火牛”的插头插入市电电源。（如图所示）



- 2 将Li-ion电池或装有Li-ion电池的对讲机插在充电座上。（如右图）

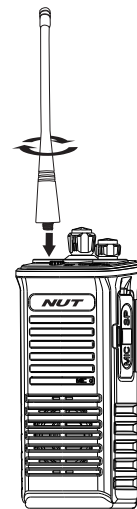
○ 确认电池与充电端子接触正常。充电时红灯亮起，充电开始，充电后绿灯亮起。



## 安装天线

- 1 握住天线底座，按顺时针方向将天线旋入对讲机顶部的连接器中，直到旋紧为止。

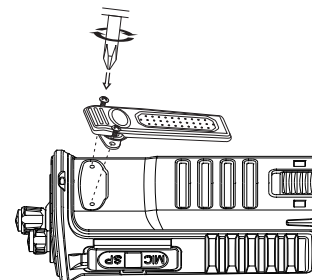
○ 请不要将天线用作把柄、把钥匙串或外接式扬声器/麦克风挂在天线上，这样使用会损坏天线并降低对讲机的性能。



## 安装皮带夹

- 1 请用随带的两只螺丝锁紧皮带夹。

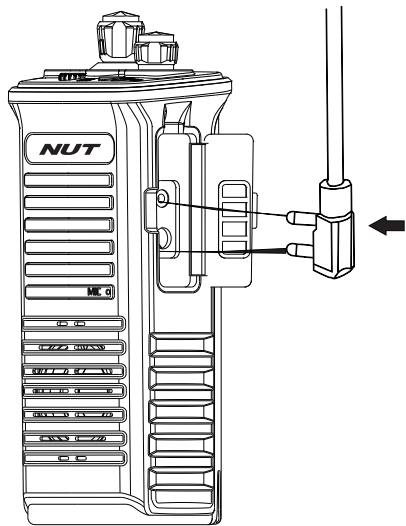
○ 请在安装皮带夹时，勿使用防止螺丝松动的胶，否则会损坏对讲机的外壳。



## 安装外接式扬声器/麦克风耳机

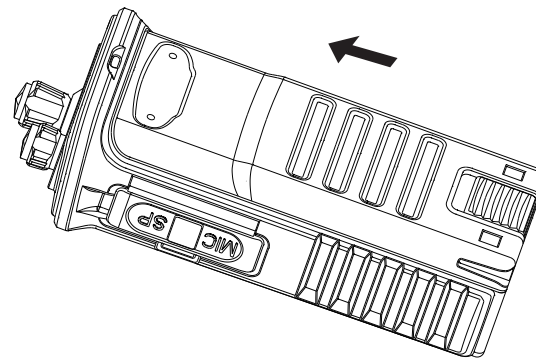
- ▶ 将扬声器/麦克风耳机直接插入扬声器/麦克风的插孔上。

○ 使用扬声器/麦克风时，对讲机不能完全防水。



## 装/卸电池组

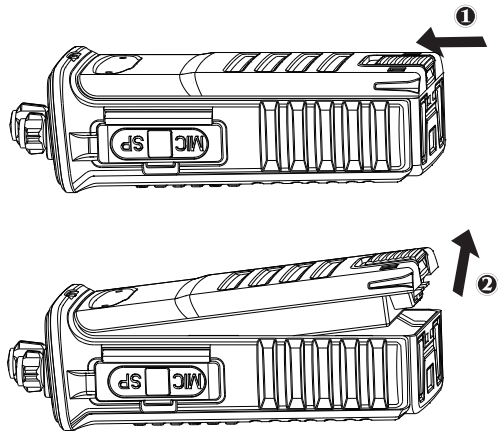
- ▶ 要装电池组时，将电池组对准对讲机背面铝框上相应位置，然后顺势将电池推入后压下，直听到“咔嗒”声。



## 装/卸电池组

① 要卸电池组时，请先关闭对讲机。

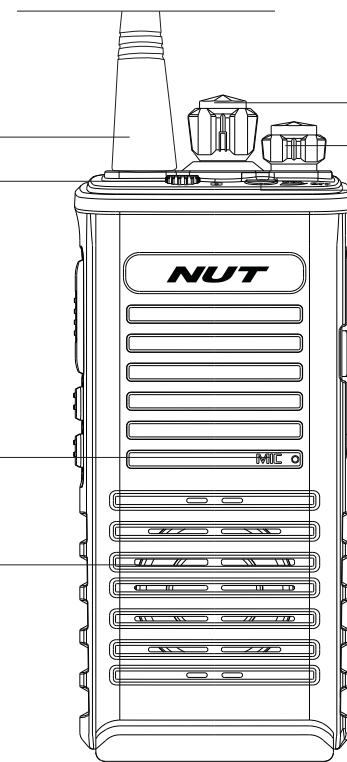
- 先将对讲机尾部的电池释放扣向内推。
- 同时将电池往上提。
- 顺着方向将电池取出。



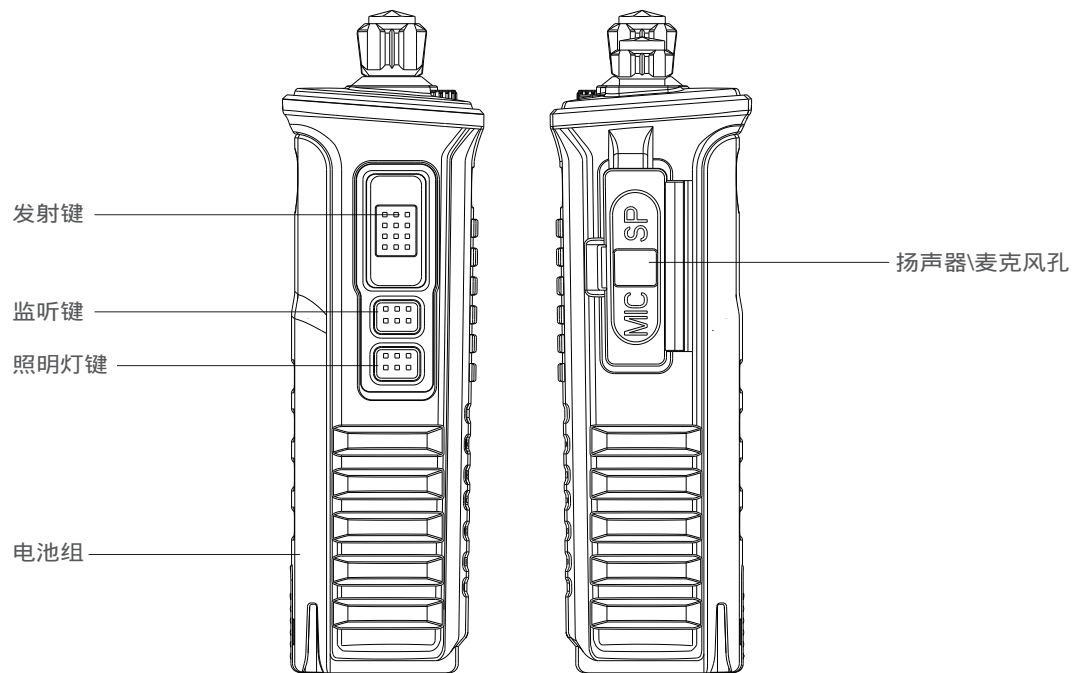
## 各部名称及其功能

天线  
照明灯

麦克风  
扬声器

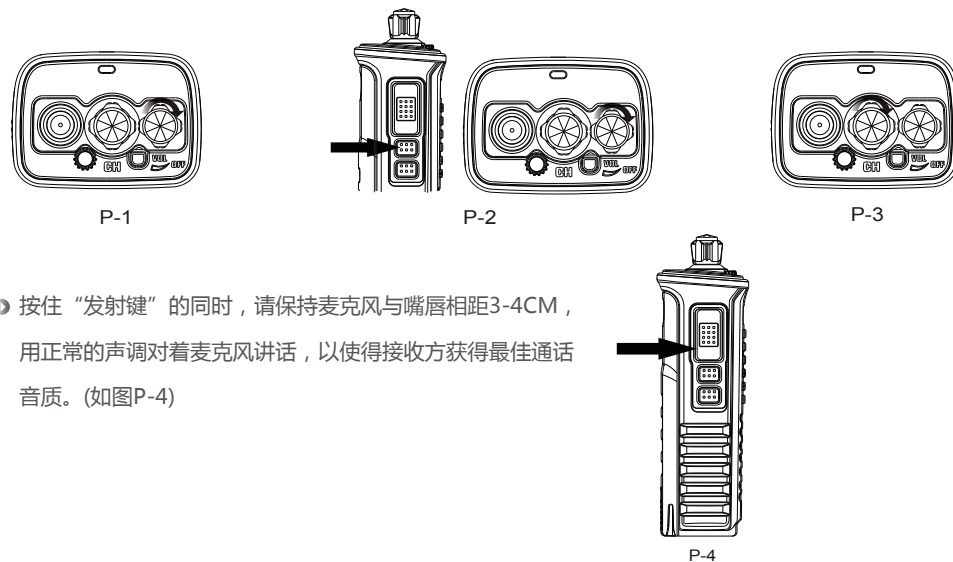


信道旋钮  
电源开关/音量调整  
接收/发射指示灯



### 电源开关/音量调整/信道旋钮

- ▶ 顺时针旋转该旋钮并听到一声轻响后,打开对讲机电源,语音提示所处信道。(如图P-1)
- ▶ 按住监听键的同时转动电源开关/音量调整控制器调节音量。(如图P-2)
- ▶ 转动信道旋钮选择您要使用的频道。(如图P-3)
  - 当您接收到适当的信号时,扬声器会传出声音。



- ▶ 按住“发射键”的同时,请保持麦克风与嘴唇相距3-4CM,用正常的声调对着麦克风讲话,以使得接收方获得最佳通话音质。(如图P-4)



## 电脑编程

先用电脑把对讲机内频率读出来,再进行信道设置。可设置以下功能：发射定时，静噪等级，语音报号，模拟亚音频/数字亚音频，宽/窄带选择，高/低功率，PPT-ID 尾音消除选择。

## 照明灯

按【照明灯】键,照明灯亮;再按【照明灯】键,照明灯关闭。

## 模拟亚音频和数字亚音频

模拟亚音频/数字亚音频设置可以避免相同设置的信号干扰。

模拟亚音频50组，数字亚音频208组。

（详情参阅14-16页亚音表、亚音数码表）

## 信道扫描(SCAN)

用信道旋钮选到第16信道，按住“监听键”开机，语音提示“扫描”此时本机依次从1至16信道进行信道扫描工作；关闭对讲机，退出信道扫描。

○ 第16信道一定要有频率，不能有空频。

## 语音提示(中/英文)

语音报号有中、英两种，可以信道编程中完成语言种类设置。转动信道旋钮，选择所需频道，有语音提示，共16信道。

## 发射定时

防止任何呼叫对方占用时间过长，如果连接发射超过设定的编程时间，对讲机会停止发射并响起警告声。

## 低电量提示(LA)

电量不足时,语音提示“请充电”。关闭对讲机电源（请用户及时充电）

## 宽/窄带选择

频率间隔>25KHz，选择宽带，频率间隔<25KHz，选择窄带。

## 调整静噪等级

调整静噪等级，是使接收处于较好的状态，又没有噪音干扰。

## 高低功率选择

发射功率在信道编程时可以设置，分高低两个级别。

## 双守候

双守候是指1~15信道，每个信道都可以与第16信道的频率相互接收。即可以收到本信道的频率，也可收到第16信道的频率。

○ 第16信道一定要有频率，不能有空频。

操作如下：

按住“监听键”开机，语音提示“扫描”用信道旋钮选到要设双守候信道，该信道接收频率与第16信道接收频率，轮换守候。没有收到第16信道频率信号时，按“发射键”只能发射该信道发射频率。只有收到第16信道信号，便可发射第16信道发射频率，与第16信道通话。信号消失后5秒，恢复双守候。关闭对讲机，退出双守候。

### PTT按键发码（PTT-ID）和双音多频（DTMF）信号

此功能可设置本机按PTT键发射或松开时发松双音多频码的声音。

1. 需要在写频软件中设置参数。
2. 安装好软件请先将专用写频线连接电脑读取对讲机信息，在工具栏点击“编辑”后再点击“可选功能”请在PTT参数框中选择设置。
  - A：DTMF CODE为设置双音多频发码字符
  - B：PTT为设置发码模式（结束发射，开始发射，两者皆）
  - C：PTT-延时为设置发码延迟时间（100ms-1000ms）
3. 关闭或开启发码请在写频界面点击“PTT-ID开或关”。

○ 正常使用请设置关闭，以免影响对讲机的正常工作。

### 发射1750信号

在写频软件读取对讲机信息在工具栏点击“编辑”后再点击“可选功能”请在PTT参数框中选择1750设置开关。按对讲机PTT+MON可发送1750信号，主要是用于打开欧洲中转台的一个发射信号，国内的中转台此功能无效。

### 尾音消除

此功能可设置对讲机在接收到尾音静噪功能关闭指令后延迟关闭接收通道。

在写频软件读取对讲机信息在工具栏点击“编辑”后在点击“可选功能”FUN框中选择尾音消除，可设置关和100ms-1000ms用于调整关闭接收通道时间的长短。

### 尾音开关

此功能可设置本机发射通话结束后，自动发送尾音静噪功能关闭指令给接收机，接收完毕后不会提示尾音“嘟”音。

在写频软件读取对讲机信息在工具栏点击“编辑”后再点击“可选功能”FUN框中选择尾音开关，可设置开和关。

尾音功能正常使用请选择开，以免影响对讲机接收完毕后提示“嘟”静噪音。

○ 在使用“尾音消除”“尾音检测”尾音开关需要开启才有效。

### 尾音检测

此功能可设置对讲机在自动发射尾音静噪功能关闭指令后延迟关闭发射指令。

在写频软件读取对讲机信息在工具栏点击“编辑”后在点击“可选功能”FUN框中选择尾音检测，可设置关和100ms-1000ms用于调整延迟关闭发射指令时间的长短。

### 提示音

此功能可设置对讲机在发射开始或结束的时候发出“滴滴”的提示音告知对方。

写频软件读取对讲机信息在工具栏点击“编辑”后再点击“可选功能”FUN框中选择提示音，可选择“开始发射”“结束发射”和“两者皆”提示对方，选择关没有提示音。

| CTCSS/亚音频表 |      |    |       |    |       |    |       |    |       |
|------------|------|----|-------|----|-------|----|-------|----|-------|
| 01         | 67.0 | 11 | 94.8  | 21 | 131.8 | 31 | 171.3 | 41 | 203.5 |
| 02         | 69.3 | 12 | 97.4  | 22 | 136.5 | 32 | 173.8 | 42 | 206.5 |
| 03         | 71.9 | 13 | 100.0 | 23 | 141.3 | 33 | 177.3 | 43 | 210.7 |
| 04         | 74.4 | 14 | 103.5 | 24 | 146.2 | 34 | 179.9 | 44 | 218.1 |
| 05         | 77.0 | 15 | 107.2 | 25 | 151.4 | 35 | 183.6 | 45 | 225.7 |
| 06         | 79.7 | 16 | 110.9 | 26 | 156.7 | 36 | 186.2 | 46 | 229.1 |
| 07         | 82.5 | 17 | 114.8 | 27 | 159.8 | 37 | 189.9 | 47 | 233.6 |
| 08         | 85.4 | 18 | 118.8 | 28 | 162.2 | 39 | 192.8 | 48 | 241.8 |
| 09         | 88.5 | 19 | 123.0 | 29 | 165.5 | 39 | 196.6 | 49 | 250.3 |
| 10         | 91.5 | 20 | 127.3 | 30 | 167.9 | 40 | 199.5 | 50 | 254.1 |

| DCS/亚音数码表 |       |    |       |    |       |    |       |    |       |     |       |
|-----------|-------|----|-------|----|-------|----|-------|----|-------|-----|-------|
| 01        | D023N | 18 | D115N | 35 | D212N | 52 | D306N | 69 | D431N | 86  | D546N |
| 02        | D025N | 19 | D116N | 36 | D223N | 53 | D311N | 70 | D432N | 87  | D565N |
| 03        | D026N | 20 | D122N | 37 | D225N | 54 | D315N | 71 | D445N | 88  | D606N |
| 04        | D031N | 21 | D125N | 39 | D226N | 55 | D325N | 72 | D446N | 89  | D612N |
| 05        | D032N | 22 | D131N | 39 | D243N | 56 | D331N | 73 | D452N | 90  | D624N |
| 06        | D036N | 23 | D132N | 40 | D244N | 57 | D332N | 74 | D454N | 91  | D627N |
| 07        | D043N | 24 | D134N | 41 | D245N | 58 | D343N | 75 | D455N | 92  | D631N |
| 08        | D047N | 25 | D143N | 42 | D246N | 59 | D346N | 76 | D462N | 93  | D632N |
| 09        | D051N | 26 | D145N | 43 | D251N | 60 | D351N | 77 | D464N | 94  | D654N |
| 10        | D053N | 27 | D152N | 44 | D252N | 61 | D356N | 78 | D465N | 95  | D662N |
| 11        | D054N | 28 | D155N | 45 | D255N | 62 | D364N | 79 | D466N | 96  | D664N |
| 12        | D065N | 29 | D156N | 46 | D261N | 63 | D365N | 80 | D503N | 97  | D703N |
| 13        | D071N | 30 | D162N | 47 | D263N | 64 | D371N | 81 | D506N | 98  | D712N |
| 14        | D072N | 31 | D165N | 48 | D265N | 65 | D411N | 82 | D516N | 99  | D723N |
| 15        | D073N | 32 | D172N | 49 | D266N | 66 | D412N | 83 | D523N | 100 | D731N |
| 16        | D074N | 33 | D174N | 50 | D271N | 67 | D413N | 84 | D526N | 101 | D732N |
| 17        | D114N | 34 | D205N | 51 | D274N | 68 | D423N | 85 | D532N | 102 | D734N |

DCS/亚音数码表

|     |       |     |       |     |       |     |       |     |       |     |       |
|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 103 | D743N | 121 | D114I | 139 | D212I | 157 | D311I | 175 | D445I | 193 | D612I |
| 104 | D754N | 122 | D115I | 140 | D223I | 158 | D315I | 176 | D446I | 194 | D624I |
| 105 | D023I | 123 | D116I | 141 | D225I | 159 | D325I | 177 | D452I | 195 | D627I |
| 106 | D025I | 124 | D122I | 142 | D226I | 160 | D331I | 178 | D454I | 196 | D631I |
| 107 | D026I | 125 | D125I | 143 | D243I | 161 | D332I | 179 | D455I | 197 | D632I |
| 108 | D031I | 126 | D131I | 144 | D244I | 162 | D343I | 180 | D462I | 198 | D654I |
| 109 | D032I | 127 | D132I | 145 | D245I | 163 | D346I | 181 | D464I | 199 | D662I |
| 110 | D036I | 128 | D134I | 146 | D246I | 164 | D351I | 182 | D465I | 200 | D664I |
| 111 | D043I | 129 | D143I | 147 | D251I | 165 | D356I | 183 | D466I | 201 | D703I |
| 112 | D047I | 130 | D145I | 148 | D252I | 166 | D364I | 184 | D503I | 202 | D712I |
| 113 | D051I | 131 | D152  | 149 | D255I | 167 | D365I | 185 | D506I | 203 | D723I |
| 114 | D053I | 132 | D155I | 150 | D261I | 168 | D371I | 186 | D516I | 204 | D731I |
| 115 | D054I | 133 | D156I | 151 | D263I | 169 | D411I | 187 | D523I | 205 | D732I |
| 116 | D065I | 134 | D162I | 152 | D265I | 170 | D412I | 188 | D526I | 206 | D734I |
| 117 | D071I | 135 | D165I | 153 | D266I | 171 | D413I | 189 | D532I | 207 | D743I |
| 118 | D072I | 136 | D172I | 154 | D271I | 172 | D423I | 190 | D546I | 208 | D754I |
| 119 | D073I | 137 | D174I | 155 | D274I | 173 | D431I | 191 | D565I |     |       |
| 120 | D074I | 138 | D205I | 156 | D306I | 174 | D432I | 192 | D606I |     |       |

技术指标

| 技术指标                |                       |               |                     |
|---------------------|-----------------------|---------------|---------------------|
| 一般规格                |                       |               |                     |
| 频率范围                | 400-480MHz            |               |                     |
| 额定电压                | DC7.2V(可充式聚合物锂电池)     |               |                     |
| 记忆频道                | 16个信道                 |               |                     |
| 天线阻抗                | 50Ω                   |               |                     |
| 工作方式                | 同频单工或异频单工             |               |                     |
| 体积                  | 145mmX61mmX44mm       |               |                     |
| 发射部分                |                       | 接收部分          |                     |
| 输出功率                | 10W                   | 参考灵敏度         | -122dBm(12dB SINAD) |
| 调制方式(宽带, 窄带)        | 16KΦF3E, 11KΦF3E      | 调制接收带宽        | 5KHz                |
| 最大频偏(宽带, 窄带)        | ≤5K/≤2.5KHz           | 音频功率          | ≤0.5W               |
| 杂散辐射                | ≤7.5μW                | 音频失真          | <10%                |
| 预加重特性               | 6dB/每倍频递增             | 阻塞            | ≥85dB               |
| 发射电流                | <3.0A                 | 互调(宽带, 窄带)    | ≥60dB ≥55dB         |
| 亚音频/数字亚音频频偏(宽带, 窄带) | 0.7±0.1KHz/0.4±0.1KHz | 邻道选择性(宽带, 窄带) | ≥65dB ≥60dB         |
| 调制灵敏度               | 8-12mV                | 杂波抑制          | ≥65dB               |
| 调制失真                | ≤10%                  |               |                     |

○ 规格如因技术改进而有变动, 恕不另行通知。

## DCS

|     |       |     |        |     |       |     |       |     |       |     |       |
|-----|-------|-----|--------|-----|-------|-----|-------|-----|-------|-----|-------|
| 103 | D743N | 121 | D114I  | 139 | D212I | 157 | D311I | 175 | D445I | 193 | D612I |
| 104 | D754N | 122 | D115I  | 140 | D223I | 158 | D315I | 176 | D446I | 194 | D624I |
| 105 | D023I | 123 | D116I  | 141 | D225I | 159 | D325I | 177 | D452I | 195 | D627I |
| 106 | D025I | 124 | D122I  | 142 | D226I | 160 | D331I | 178 | D454I | 196 | D631I |
| 107 | D026I | 125 | D125I  | 143 | D243I | 161 | D332I | 179 | D455I | 197 | D632I |
| 108 | D031I | 126 | D131I  | 144 | D244I | 162 | D343I | 180 | D462I | 198 | D654I |
| 109 | D032I | 127 | D132I  | 145 | D245I | 163 | D346I | 181 | D464I | 199 | D662I |
| 110 | D036I | 128 | D134I  | 146 | D246I | 164 | D351I | 182 | D465I | 200 | D664I |
| 111 | D043I | 129 | D143I  | 147 | D251I | 165 | D356I | 183 | D466I | 201 | D703I |
| 112 | D047I | 130 | D145I  | 148 | D252I | 166 | D364I | 184 | D503I | 202 | D712I |
| 113 | D051I | 131 | D152   | 149 | D255I | 167 | D365I | 185 | D506I | 203 | D723I |
| 114 | D053I | 132 | D155I  | 150 | D261I | 168 | D371I | 186 | D516I | 204 | D731I |
| 115 | D054I | 133 | D156I  | 151 | D263I | 169 | D411I | 187 | D523I | 205 | D732I |
| 116 | D065I | 134 | D162I  | 152 | D265I | 170 | D412I | 188 | D526I | 206 | D734I |
| 117 | D071I | 135 | D165I  | 153 | D266I | 171 | D413I | 189 | D532I | 207 | D743I |
| 118 | D072I | 136 | D172I  | 154 | D271I | 172 | D423I | 190 | D546I | 208 | D754I |
| 119 | D073I | 137 | D174II | 155 | D274I | 173 | D431I | 191 | D565I |     |       |
| 120 | D074I | 138 | D205I  | 156 | D306I | 174 | D432I | 192 | D606I |     |       |

## SPECIFICATIONS

## GENERAL

|                   |   |
|-------------------|---|
| Frequency range   | 400-480MHz  |
| Rated voltage     | DC 7.2V (Rechargeable Polymer Li-ion battery)                           |
| Memory channel    | 16 channels   |
| Antenna impedance | 50Ω   |
| Working manner    | Same frequency single operation or different frequency single operation |
| Dimensions        | 145mmX61mmX44mm   |

## TRANSMITTER

## RECEIVER

|                                     |                       |                                |                     |
|-------------------------------------|-----------------------|--------------------------------|---------------------|
| Output power                        | 10W                   | Sensitivity                    | -122dBm(12dB SINAD) |
| Modulation mode (W/N)               | 16KΦ F3E,11KΦ F3E     | Modulation receiving bandwidth | 5KHz                |
| Maximum frequency deviation (W/N)   | ≤5K/≤2.5KHz           | Audio power                    | ≤ 0.5W              |
| Spurious radiation                  | ≤7.5uW                | Audio distortion               | <10%                |
| Preemphasis character               | 6dB/per fold          | Blocking                       | ≥85dB               |
| Emission current                    | ≤ 3.0A                | Intermodulation (W/N)          | ≥60dB ≥55dB         |
| CTCSS/DCS frequency deviation (W/N) | 0.7±0.1KHz,0.4±0.1KHz | Adjacent channel selectivity   | ≥65dB ≥60dB         |
| Modulation sensitivity              | 8-12mV                | Spurious radiation             | ≥65dB               |
| Modulation distortion               | ≤10%                  |                                |                     |

◦ All stated specifications are subject to change without notice or obligation.

| CTCSS |      |    |       |    |       |    |       |    |       |
|-------|------|----|-------|----|-------|----|-------|----|-------|
| 01    | 67.0 | 11 | 94.8  | 21 | 131.8 | 31 | 171.3 | 41 | 203.5 |
| 02    | 69.3 | 12 | 97.4  | 22 | 136.5 | 32 | 173.8 | 42 | 206.5 |
| 03    | 71.9 | 13 | 100.0 | 23 | 141.3 | 33 | 177.3 | 43 | 210.7 |
| 04    | 74.4 | 14 | 103.5 | 24 | 146.2 | 34 | 179.9 | 44 | 218.1 |
| 05    | 77.0 | 15 | 107.2 | 25 | 151.4 | 35 | 183.6 | 45 | 225.7 |
| 06    | 79.7 | 16 | 110.9 | 26 | 156.7 | 36 | 186.2 | 46 | 229.1 |
| 07    | 82.5 | 17 | 114.8 | 27 | 159.8 | 37 | 189.9 | 47 | 233.6 |
| 08    | 85.4 | 18 | 118.8 | 28 | 162.2 | 39 | 192.8 | 48 | 241.8 |
| 09    | 88.5 | 19 | 123.0 | 29 | 165.5 | 39 | 196.6 | 49 | 250.3 |
| 10    | 91.5 | 20 | 127.3 | 30 | 167.9 | 40 | 199.5 | 50 | 254.1 |

| DCS |       |    |       |    |       |    |       |    |       |     |       |
|-----|-------|----|-------|----|-------|----|-------|----|-------|-----|-------|
| 01  | D023N | 18 | D115N | 35 | D212N | 52 | D306N | 69 | D431N | 86  | D546N |
| 02  | D025N | 19 | D116N | 36 | D223N | 53 | D311N | 70 | D432N | 87  | D565N |
| 03  | D026N | 20 | D122N | 37 | D225N | 54 | D315N | 71 | D445N | 88  | D606N |
| 04  | D031N | 21 | D125N | 39 | D226N | 55 | D325N | 72 | D446N | 89  | D612N |
| 05  | D032N | 22 | D131N | 39 | D243N | 56 | D331N | 73 | D452N | 90  | D624N |
| 06  | D036N | 23 | D132N | 40 | D244N | 57 | D332N | 74 | D454N | 91  | D627N |
| 07  | D043N | 24 | D134N | 41 | D245N | 58 | D343N | 75 | D455N | 92  | D631N |
| 08  | D047N | 25 | D143N | 42 | D246N | 59 | D346N | 76 | D462N | 93  | D632N |
| 09  | D051N | 26 | D145N | 43 | D251N | 60 | D351N | 77 | D464N | 94  | D654N |
| 10  | D053N | 27 | D152N | 44 | D252N | 61 | D356N | 78 | D465N | 95  | D662N |
| 11  | D054N | 28 | D155N | 45 | D255N | 62 | D364N | 79 | D466N | 96  | D664N |
| 12  | D065N | 29 | D156N | 46 | D261N | 63 | D365N | 80 | D503N | 97  | D703N |
| 13  | D071N | 30 | D162N | 47 | D263N | 64 | D371N | 81 | D506N | 98  | D712N |
| 14  | D072N | 31 | D165N | 48 | D265N | 65 | D411N | 82 | D516N | 99  | D723N |
| 15  | D073N | 32 | D172N | 49 | D266N | 66 | D412N | 83 | D523N | 100 | D731N |
| 16  | D074N | 33 | D174N | 50 | D271N | 67 | D413N | 84 | D526N | 101 | D732N |
| 17  | D114N | 34 | D205N | 51 | D274N | 68 | D423N | 85 | D532N | 102 | D734N |

- After the signal disappears for 5s, it comes back to "dual-watch". Turn off the radio to exit.

### PTT-ID & DTMF

This function can set the sound when you press PTT key to transmit or release to send PTT-ID.

- Set up parameters in the programming software.
- Connect the computer and the radios by specified programming cable, then read the information from the radio; Open "toolbar", click "edit", then click "optional functions", then to set the parameter.
  - A. DTMF CODE: sending the DTMF characters.
  - B. PTT: setting the sending mode (Press: TX; Release: TX; Both)
  - C. PTT-Prolong: setting the prolong time of the radio's PTT-ID (100ms - 1000ms) Pls click PTT-ID "ON" or "OFF" when setting the parameter (Note: Select "OFF" when using in case of affecting the radio)

### 1750Hz Call Tone

- Read the information from the radio, open "toolbar", click "edit", then click "optional functions", then select "ON" or "OFF" in the PTT.
- Press PTT+BAND to send 1750Hz call tone. (This function is for the repeater of European market.)

### Tail Tone Switch

The radio will send closing command of tail tone squelch to receiving radio when call is end, the receiving end won't hear "beep" tail tone.

- Please click "Edit" and select open or close tail tone elimination in "Option function" box after read-in radio.
- Pls open it in normal use, at least there is always "beep" when the call is end. (Note: The "Tail tone elimination" and "Tail tone test" are valid only when you open it.)

### Tail Tone Elimination

To make a delay in closing receiving channel after receiving close command of tail tone squelch function.

- You can select the tail tone elimination in "Option function" box after click "Edit" in PC program, then set 100ms -1000ms to adjust the length in closing receiving channel.

### Tail Tone Test

To make a delay in closing transmitting command after the radio send close command of tail tone squelch function automatically.

You can select the tail tone elimination in "Option function" box after click "Edit" in PC program, then set 100ms -1000ms to adjust the length of delay in closing transmitting command.

### Roger

It will beep when TX is starting/ending. Pls click "Optional functions" after you click "Edit" in software programming, you will see there are four options in "Roger" functional block: starting or ending or both or close

**PC programmable**

Please use NUT standard programming software. You can set the following features through the software: Time-out-timer, Squelch level, Voice prompt, CTCSS/DCS, Wide/Narrow bandwidth, High/Low power selection, Tail tone elimination, PTT-ID.

**Jacklight**

Press(Jacklight key), the jacklight is ON. Press it again, the jacklight is OFF.

**CTCSS/DCS**

Set up workgroups/users with unique CTCSS/DCS to prevent disturbance in the same frequency.

CTCSS: 50 groups    DCS: 208 groups.

**Channel Scan**

Rotate the channel knob to channel 16, press Monitor key to turn on the radio, you will hear the voice prompt of "Scan". It will scan from channel 1 to channel 16. Turn off the radio to exit.

NOTE: There must be frequency in channel 16.

**Voice Prompt (Chinese or English)**

You could set Chinese or English as the voice prompt by programming software.

**Time-Out-Timer (TOT)**

To limit the calling time, the radio will stop transmitting, and you will hear the warning tone if it transmits over the set time.

**Low Power Alarm**

Audible tone will remind you when the battery is running down.

**Wide/Narrow Bandwidth**

Frequency space>25KHz, it is wide bandwidth.

Frequency space<25KHz, it is narrow bandwidth.

**Squelch Level Adjustable**

It helps to minimize interference from undesired signals and helps weak signals to be heard.

**High/Low Power Selective**

You can choose high or low power through the programming software.

**Dual-watch Operation**

"Dual-watch"between the current working channel and channel 16.

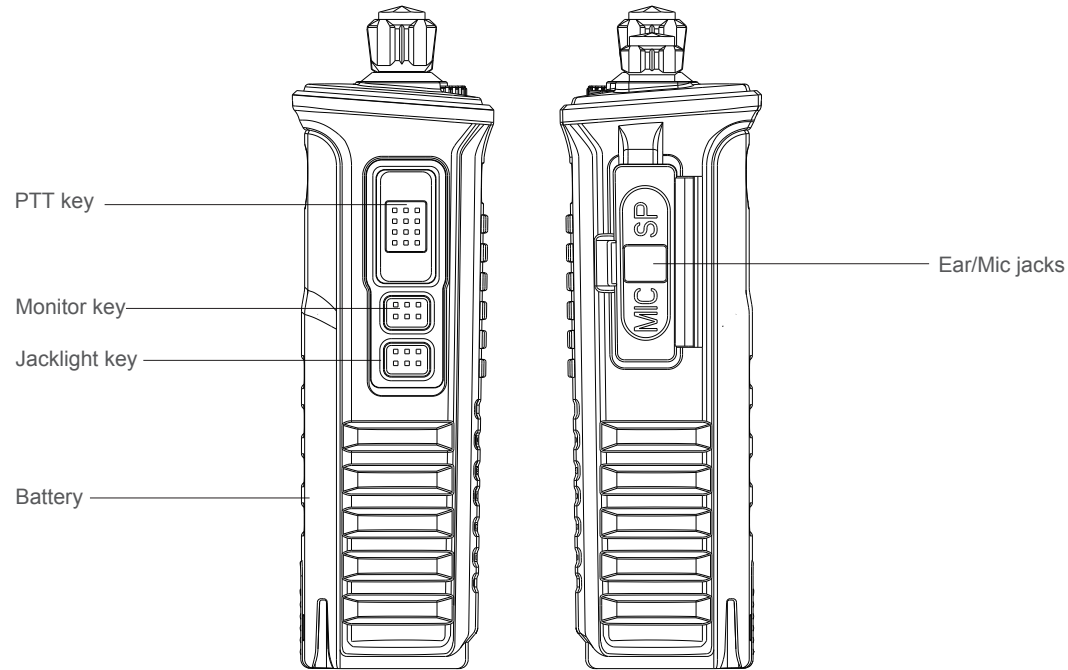
The current working channel can receive its own frequency as well as the frequency of channel 16.

NOTE: There must be frequency in channel 16.

The operation steps are as follows:

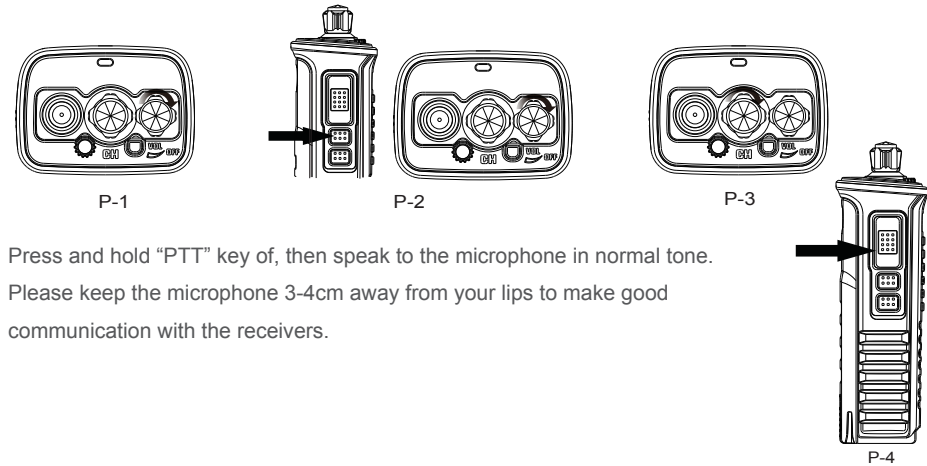
- Press Monitor key to turn on the radio, and you will hear the voice prompt of"scan". Rotate the channel knob to the channel you want to set, the channel will be in"dual-watch"with channel 16.
- It could transmit only the frequency of the current channel by pressing PTT without receiving the signal of channel 16, and it could communicate with the16th channel only after receiving the signal of channel 16.





### BASIC OPERATION

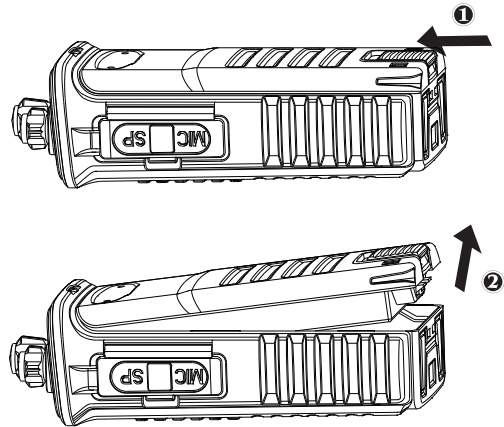
- Turn the Power/Volume knob clockwise to turn the power on, the radio will beep and remind you the current channel. (As P-1)
- Pressing the "Monitor" key, turn the Power/Volume knob at the same time to adjust the volume. (As P-2)
- Turn the channel knob to choose the channel you want. (As P-3)
  - When you receive signal, the speaker will make a sound.



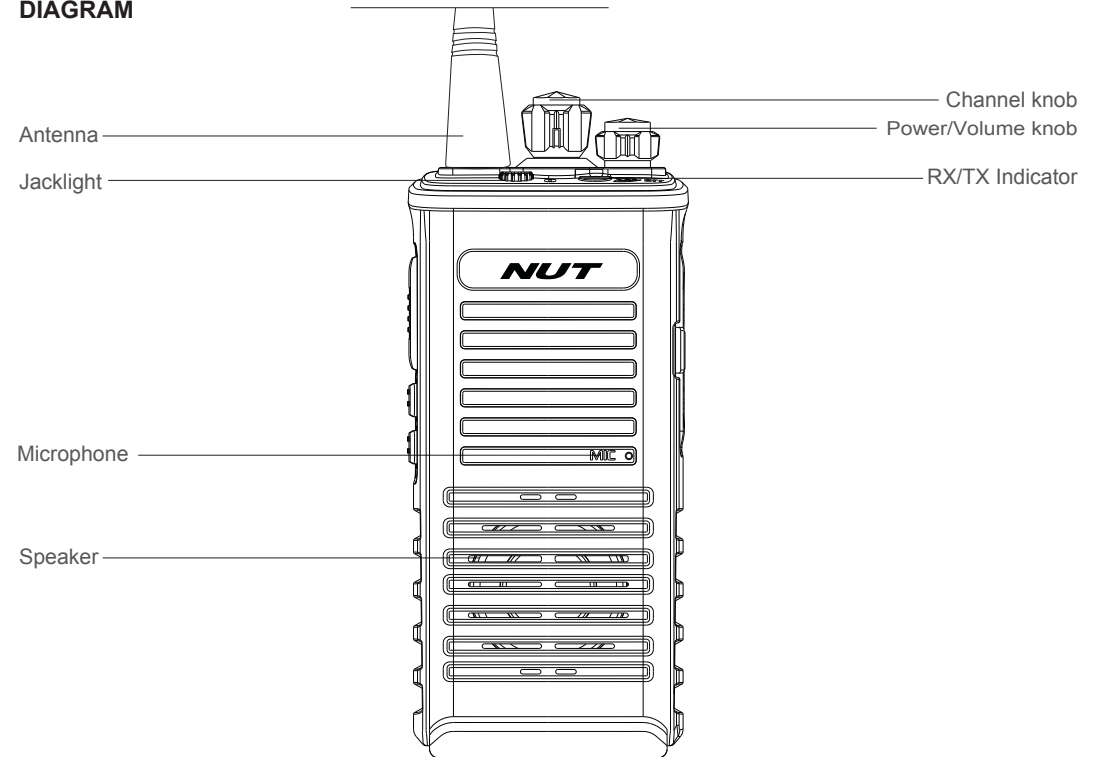
- Press and hold "PTT" key of, then speak to the microphone in normal tone. Please keep the microphone 3-4cm away from your lips to make good communication with the receivers.

## RELEASING THE BATTERY PACK

- ▶ Turn off the radio before releasing the battery pack.
- Press the battery releasing button in the direction of arrow ① as show below.
- Then push the battery in the direction of arrow ②.
- And then release the battery pack.

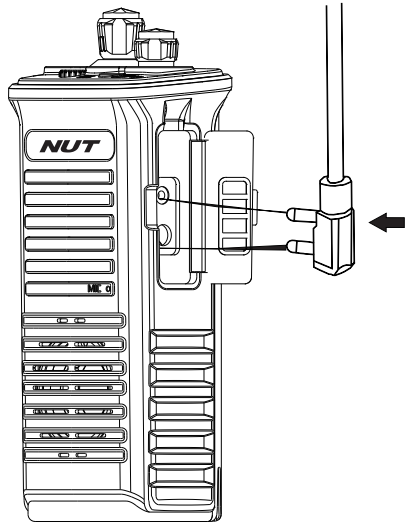


## DIAGRAM



## INSTALLING EXTERNAL SPEAKER/MICROPHONE

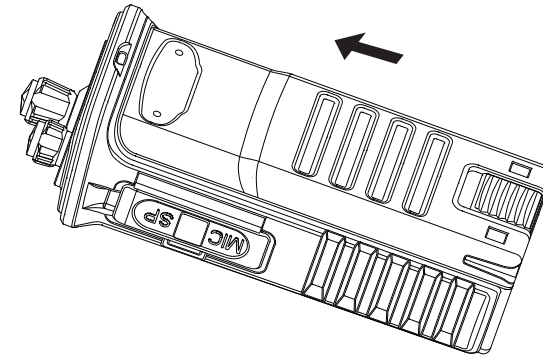
- ▶ Insert the speaker/microphone plugs into the speaker/microphone jacks.



NOTE: The radio is not fully rain-resistant while using the external speaker/microphone.

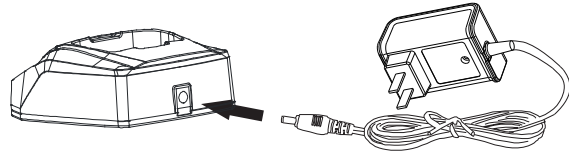
## ATTACHING THE BATTERY PACK

- ▶ Slide the battery pack into the back of the radio in the direction of the arrow. Slide the battery pack until the battery releasing button makes a “clicking” sound.



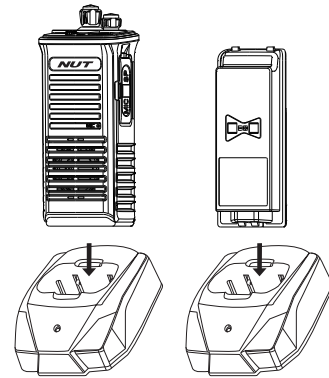
## CHARGING NOTES (2)

- 1 Plug the AC adapter into the back of the charger. Then plug the power cable of the adapter into city electric power.



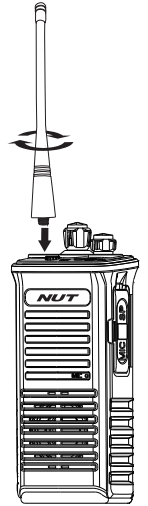
- 2 Slide the Li-ion battery pack or radio with a Li-ion battery pack into the charger.

- Make sure the battery pack is in connected with the charging terminals.
- When charging begins, the RED LED light displays.
- When the battery pack is charged to its greatest capacity, the GREEN LED light displays.



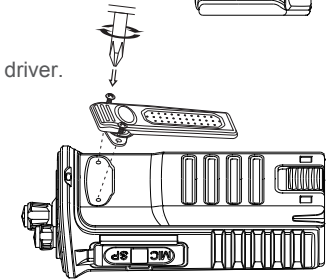
## INSTALLING ANTENNA

- 1 Attach the antenna to the radio as illustrated on the right.



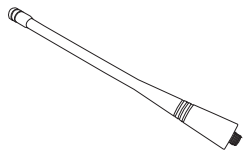
## INSTALLING BELT CLIP

- 1 Attach the belt clip with the supplied screws by using a phillips screw driver.

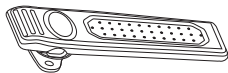


To attach the belt clip

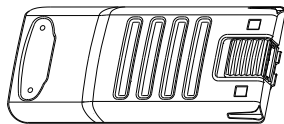
**⚠ Carefully unpack the portable radio. We suggest that you check the following items before you throw away the packing materials.**



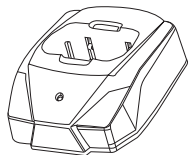
Antenna



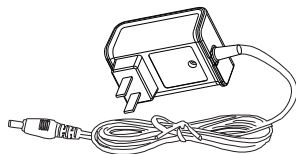
Belt Clip



Polymer Li-ion battery pack (7.2V)



Battery Charger



Adapter



User's Manual

### CHARGING NOTES (1)

- Battery packs are not charged when they are shipped. Charge them before use.
- Initially charging the battery pack after purchased or extended storage (longer than 2 months) will not bring the battery pack to its greatest capacity or its normal charge, which can be done only after repeatedly charging and discharging for two or three times.

### [ CAUTIONS ]

- After the battery is charged to its highest capacity, don't charge anymore. Otherwise it will effect the life of the battery , please take it out from the charger.
- Do not short-circuit the battery terminals or throw the battery into fire.
- Never attempt to remove the casing from the battery pack.

- Please turn the power off before charging .
- If the radio still shows low power after the normal charge, please change a new battery.
- The average usage time of battery pack is 14 hours. Average usage time is 5% for transmitting, 5% for receiving and 90% for standby.

### PRECAUTIONS BEFORE USING

- ❶ Please read the User's Manual before using . It gives you important information about how to operate the portable radio.
- ❷ Please put the radio and accessories where the children can not touch.
- ❸ Maintenance can only be performed by professional technicians.
- ❹ Please use the standard battery pack and charger in order not to destroy the radio.
- ❺ Please use the standard antenna , in order not to shorten the distance.
- ❻ Do not expose the radio to sunlight for a long period of time , nor put it near the heat , nor use it in a high temperature environment.
- ❼ Keep it dry . ( Rain or moisture will erode the electronic board ) .
- ❽ Do not transmit when the antenna is not installed .
- ❾ If you find bad smell or smog , please turn off the radio immediately . And take the battery off the radio , then contact with NUT agent.

Warning:

- Easily exploded environment (gas,dust and mist,etc)
- Cut off the power supply while refueling or parking at the gas station.

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## ***NUT***

Thank you for purchasing this NUT Radio.

We believe this easy-to-use radio will provide reliable and dependable communication.

NUT Radio incorporates the latest advanced technology.

As a result, we know that you will be pleased with the quality and features of this product.

## **FEATURES**

- Output power: 10W
- Stainless steel mesh speaker
- Antimagnetic, prevent the iron scrap from pasting
- Adopting newest polymer Li-ion battery
- Adopting imported PC material in case to make it solid&abradable
- 350 hours' super-long standby time
- PC programmable
- Voice prompt (Chinese or English)
- Jacklight
- CTCSS/DCS
- PTT-ID & DTMF
- Channel scan
- Time-out-timer(TOT)
- Low power alarm
- Wide/Narrow bandwidth
- Squelch level adjustable
- High/Low power selective
- Dual-watch operation
- 1750Hz call tone
- Tail tone elimination
- Roger