



OWNER'S MANUAL

使用说明书

DIGITAL PORTABLE RADIO

数字手持终端

DIGITAL TRUNKING PORTABLE RADIO

数字集群手持终端



Preface

Thanks for your favor in our product. This manual is helpful for you to quickly know how to use the product. For detailed features and operations, please refer to the Feature Description and Operation Manual along with the product.

To avoid body injury or property loss caused by misoperation, please read the Safety Information Booklet carefully before use.

This manual is applicable to the following product:
X1ei Digital Portable Radio

Icon Conventions



Indicates functions that are available on digital channel only.



Indicates functions that are available on analog channel only.

Functions marked with no icon are available on both analog and digital channels.

Disclaimer

Hytera Communications Corporation Limited (the Company) endeavors to achieve the accuracy and completeness of this manual, but no warranty of accuracy or reliability is given. All the specifications and designs are subject to change without notice due to continuous technology development. No part of this manual may be copied, modified, translated, or distributed in any manner without the express written permission of us.

We do not guarantee, for any particular purpose, the accuracy, validity, timeliness, legitimacy or completeness of the Third Party products and contents involved in this manual.

If you have any suggestions or would like to learn more details, please visit our website at: <http://www.hytera.com>.

RF Radiation Information

This product must be restricted to operations in an occupational/controlled RF exposure environment. Users must be fully aware of the hazards of the exposure and able to exercise control over their RF exposure to qualify for the higher exposure limits.

RF Radiation Profile

Radio Frequency (RF) is a frequency of electromagnetic radiation in the range at which radio signals are transmitted. RF technology is widely used in communication, medicine, food processing and other fields. It may generate radiation during use.

RF Radiation Safety

In order to ensure user health, experts from relevant industries including science, engineering, medicine and health work with international organizations to develop standards for safe exposure to RF radiation. These standards consist of:

- United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J;
- American National Standards Institute (ANSI)/ Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992;
- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999;
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998;

FCC Regulations

Federal Communication Commission (FCC) requires that all radio communication products should meet the requirements set forth in the above standards before they can be marketed in the U.S, and the manufacturer shall post a RF label on the product to inform users of operational instructions, so as to enhance their occupational health against exposure to RF energy.

Operational Instructions and Training

Guidelines




To ensure optimal performance and compliance with the occupational/controlled environment RF energy exposure limits in the above standards and guidelines, users should transmit not more than 50% of the time and always adhere to the following procedures:

RF energy will be generated only when the radio is transmitting.

EU Regulatory Conformance

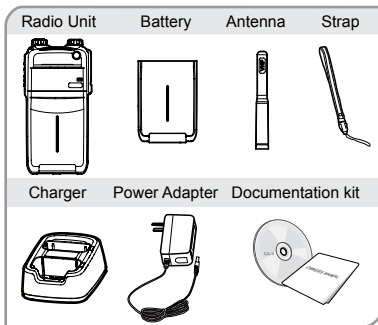
As certified by the qualified laboratory, the product is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC. Please note that the above information is applicable to EU countries only.

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Items in the Package

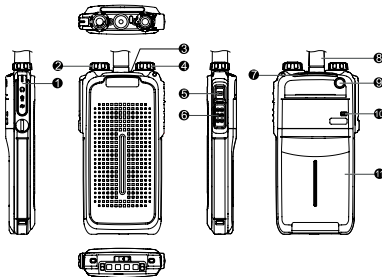
Please unpack carefully and check if all items listed below are received. If any item is missing or damaged, please contact your dealer.



Note: The frequency band is marked on the label of antenna; if not, please refer to the label on the radio for frequency band information.

Product Overview

Product Controls



No.	Part Name	No.	Part Name
1	Accessory Connector	7	Speaker
2	Power On/Off/Volume Control Knob	8	Antenna
3	LED Indicator	9	TK (Top Key)
4	Channel Selector Knob	10	Microphone
5	SK1 (Side Key 1)	11	Battery
6	PTT (Push-to-Talk) Key	/	/

Programmable Keys

For enhanced convenience, you may request your dealer to program the **TK** (Ⓚ) and **SK1** as shortcuts to certain functions. Please refer to the Feature Description and Operation Manual along with the product for more details.



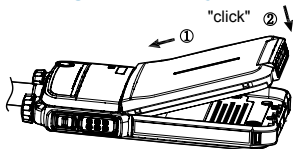
Caution: The **TK** key is programmed with emergency feature by default (short press: Emergency On; long press: Emergency Off). It is programmable by your dealer.

LED Indicator

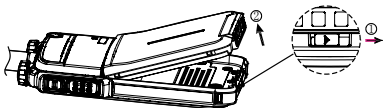
LED Indication	Radio Status
The LED indicator flashes green.	Powering on
The LED indicator glows green.	Receiving
The LED indicator glows red.	Transmitting
The LED indicator flashes orange slowly.	Scanning or Roaming
The LED indicator flashes orange rapidly.	Emergency
The LED indicator glows orange.	Call hung period. No voice is being transmitted or received on the traffic channel during a call. Within such period, you can hold down the PTT key to talk to the other party.
The LED indicator glows blue and then flashes once every three seconds.	LED indicator glowing blue indicates the BT feature is being started; LED indicator flashing blue once every three seconds indicates the BT feature is enabled, but no wireless device is connected.
The LED indicator flashes once every two seconds.	A wireless device is connected.

Before Use

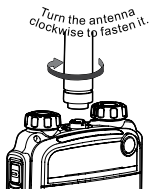
Attaching the Battery



To remove the battery, turn off the radio first. Slide the battery latch in direction as arrow ① shows to unlock the battery, and then remove the battery as arrow ② shows.



Attaching the Antenna

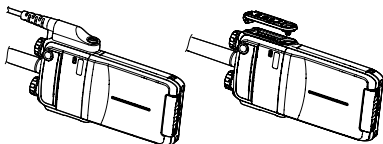


Caution: Do not hold the radio by its antenna, otherwise the performance and lifespan of the antenna will be reduced.

Attaching the Accessories

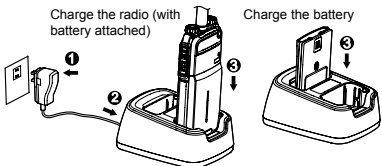
Caution: Please attach the accessory properly; otherwise, waterproof performance of the radio may get affected.

1. Loosen the screw on the accessory connector cover to uncover the connector.
2. Align the accessory plug with the connector.
3. Tighten the screw on the accessory plug.



Charging the Battery

- Caution:**
- Use the charger specified by the Company to charge the battery.
 - Make sure the radio is powered off before charging. Read the Safety Information Booklet in advance to get necessary safety information.
 - Charge a new battery for at least 3.5 hours before initial use for best performance.



Charging Status Indication (on charger):

LED Indication	Charging Status
The LED Indicator flashes red slowly.	Standby (no load)
The LED Indicator glows red.	Charging
The LED indicator glows orange.	90% charged
The LED indicator glows green.	Fully charged
The LED Indicator flashes red rapidly.	Charging failed

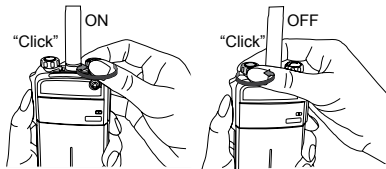
Checking the Battery Power

You can check the current battery power by holding down the programmed **Battery Power Indicator** key preset by your dealer. And release the key to exit. Battery power indications and alert tone are listed below:

LED Indication/Tone	Battery Power
The LED Indicator glows green.	High
The LED Indicator glows orange.	Medium
The LED Indicator glows red.	Low
The LED Indicator glows red and an alert tone sounds.	The battery runs low. Please recharge or replace the battery for proper radio operation

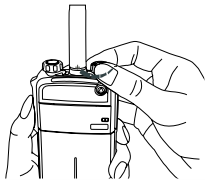
Basic Operation

Turning the Radio On/Off



Adjusting the Volume

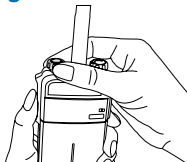
You can adjust the volume of output voice, alert tone and channel notification tone by rotating the **Volume Control Knob**. For other tones, the volume will be configured by the dealer.



Selecting a Zone

A zone is a group of channels with the same property, which can facilitate convenient management over the channels. The radio supports 3 zones, each of which consists of up to 16 channels. Your dealer can program the zone for your specific needs. You can switch to the appropriate zone by pressing the programmed **Zone Up** or **Zone Down** key preset by your dealer.

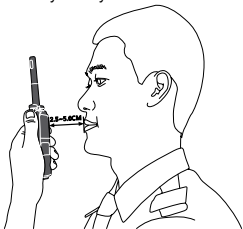
Selecting a Channel



Note: If the Channel Notify feature is enabled by your dealer, the radio will announce the channel number upon channel switching.

Call Services

After the radio is powered on, you can make and receive calls. To ensure optimal volume of the receiving radio, keep the microphone about 2.5 to 5 centimeters away from your mouth when transmitting.



Private Call

Initiating a Private Call

In the home screen, hold down the **PTT** key to initiate a private call to the private contact preset for the current channel.

You may request your dealer to preset a regular private contact, group contact or all call contact for each digital channel.

Receiving and Responding to a Private Call

When you receive a private call, you can listen to it without any operation and hold down the **PTT** key to call back within the preset time.

Group Call

Initiating a Group Call

In the standby mode, hold down the **PTT** key to initiate a group call to the group contact preset for the current channel.

Receiving and Responding to a Group Call

When you receive a group call, you can listen to it without any operation and hold down the **PTT** key to call back within the preset time.

Call on Analog Channel (Without Signaling)

To transmit on an analog channel, hold down the **PTT** and speak into the microphone. To receive, release the **PTT** key.

Please refer to the *Feature Description and Operation Manual* along with the product for operation description on how to make and receive calls on the analog channel with signaling.

Emergency Alarm

In case of emergency, you can use Emergency Call to ask for help from your companion or the control center.

Emergency Call needs to be configured and enabled by your dealer. Please refer to the Feature Description and Operation Manual along with the product for details.

Troubleshooting

Phenomena	Analysis	Solution
The radio cannot be powered on.	The battery may be improperly installed.	Remove the battery and then reattach it.
	The battery power may run out.	Recharge or replace the battery.
	The battery may suffer from poor contact caused by dirtied or damaged battery contacts.	Clean the battery contacts.
During receiving, the voice is weak, discontinuous or totally inactive.	The battery voltage may be low.	Recharge or replace the battery.
	The volume level may be low.	Increase the volume by rotating the Volume Control Knob .
	The antenna may get loose or may be improperly installed.	Turn off the radio and reattach the antenna.
You cannot communicate with other members.	The speaker may be blocked or damaged.	Clean the surface of the speaker.
	The frequency or signaling may be inconsistent with that of other members.	Set your TX/RX frequency and signaling to the same as that of other members.
	The channel type (digital and analog) may be set inconsistently.	Make sure all members are on the same digital or analog channel.
Irrelevant communication or noise is heard on the channel.	You may be too far away from the group members.	Move towards other members.
	You may be interrupted by radios using the same frequency.	Change the frequency, or adjust the squelch level.
The noise is too loud.	The radio may be set without signaling.	Set signaling for all member radios to avoid interference at the same frequency.
	You may be too far away from other members.	Move towards other members.
	You may locate in an unfavorable position. For example, your communication may be blocked by high buildings or frustrated in the underground areas.	Move to an open and flat area, and restart the radio to try again.
The GPS cannot locate your position.	You may suffer from external disturbance (such as electromagnetic interference).	Stay away from equipment that may cause interference.
	GPS signals may not be received due to unfavorable position.	Move to an open and flat area to try again.
Wireless devices cannot be paired.	The battery power of wireless devices may be low.	Recharge the wireless devices.
	Wireless device may be too far away from the radio.	Move the wireless device towards the radio.

If the above solutions cannot fix your problems, or you may have some other queries, please contact us or your local dealer for more technical support.

Available Features

Available features of this radio are listed below. Please refer to the Feature Description and Operation Manual for detailed feature descriptions.

Feature Type	Detailed Feature
Basic Setting	<ul style="list-style-type: none">• Indication: LED, Tone, Vibration• Audio: Mic AGC, Treble Boost, LQO, Audio Feedback Suppression• Scanning: Scan On, Scan Off, Scan List• Other Features: Power Level, VOX, One Touch Call/Menu, Renting, Programming, Covert Mode
Digital Features	<ul style="list-style-type: none">• Voice Services: Group Call, Private Call, All Call• Control Services: Alert Call, Radio Check, Remote Monitor, Radio Enable, Radio Disable, Priority Interrupt, Receiving Vibration, Time-out Timer (TOT)• Personal Security Services: Emergency Alarm, Man Down, Lone Worker• Encrypt• Network: Talk Around, Roam• Other Features: Pseudo Trunking, Morse Code
Analog Features	<ul style="list-style-type: none">• Voice Services: Call without Signaling, Call with Signaling• Control Services: Compandor, Time-out Timer (TOT), Receiving Vibration, Monitor, Squelch Off, Squelch Level Adjustment, CTCSS/CDCSS• Personal Security Services: Emergency Alarm, Man Down, Lone Worker• Scrambler• Talk Around• Morse Code
Accessory-related Features	<ul style="list-style-type: none">• BT
API Features	<ul style="list-style-type: none">• GPS Report• Radio Registration Service• Telemetry

Care and Cleaning

To guarantee optimal performance as well as a long service life of the product, please follow the tips below.

Product Care

- Do not pierce or scrape the product.
- Keep the product far away from substances that can corrode the circuit.
- Do not hold the product by its antenna or earpiece cable directly.
- Attach the accessory connector cover when the accessory is not in use.

Product Cleaning




Caution: Turn off the product and remove the battery before cleaning.

- Clean up the dust and fine particles on the product surface and charging piece with a clean and dry lint-free cloth or a brush regularly.
- Use neutral cleanser and a non-woven fabric to clean the keys, control knobs and front case after long-time use. Do not use chemical preparations such as stain removers, alcohol, sprays or oil preparations, so as to avoid surface case damage.
- Make sure the product is completely dry before use.

Optional Accessories

The following items are the main optional accessories for the product, and please consult your local dealer for more other accessories.

 **Caution:** Use the accessories specified by the Company only. If not, the Company shall not be liable for any losses or damages arising out of use of unauthorized accessories.

Type	Model	Name
Power Supply	BL1103	Li-ion battery (1100 mAh)
	BL1809	Li-ion battery (1800 mAh)
	CH04L01	Portable Charger
	CHV09	Vehicle Adapter for Charger
	MCA05-X	Battery Optimizing System
	MCA10	MCU Multi-unit Rapid-rate Charger
	POA53	Li-ion Battery Adapter for X1ei Series
	POA58	Multi-unit Charger Battery Adapter for X1ei
Audio Accessories	EAN19	3-wire Surveillance Earpiece with Transparent Acoustic Tube (Beige)
	EAN21	3-wire Surveillance Earpiece with Transparent Acoustic Tube (Beige)
	EAN22	Detachable Earpiece with Transparent Acoustic Tube
	EAN24	2-wire Surveillance Earpiece with Transparent Acoustic Tube (Black)
	EHN20	Swivel Earset
	EHN21	C-Earset
	EHW02	Wireless Earpiece
	ESN14	Earbud
	EWN07	Digital Wireless Covert Earpiece With in-Line Controller (Neckloop Sensor)
	EWN08	Digital Wireless Covert Earpiece (Flatpack Sensor)
Cable	POA47	Wireless Ring PTT
Carrying Accessories	PC45	Programming Cable (USB port)
	NCN009	Covert Shoulder Harness
	PCN005	Belt Clip
	NCN009-C	Covert Radio Zip Up Vest (White)



致用户

非常感谢您对我们产品的青睐！本手册旨在让您快速掌握本产品的使用，如需了解产品详细功能和操作，请参阅本产品配套的《功能与操作手册》。

为了避免因不当操作而给您带来身体伤害或财产损失，请于使用本产品前仔细阅读《安全信息手册》。

本手册适用于以下机型：

X1ei 数字手持终端

图标说明



表示数字信道独有的功能，只能在数字信道上使用。



表示模拟信道独有的功能，只能在模拟信道上使用。

未用图标区分的功能在数字信道和模拟信道上都可使用。

免责声明

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射频辐射信息

本产品仅限于能够满足射频能量辐射要求的职业应用。使用者必须清楚了解射频辐射危害并可采取相应措施，满足射频辐射限定要求。

射频辐射常识

射频指可以辐射到空间的电磁频率，是通讯、医疗、食品加工等领域广泛使用的一种技术，在使用过程中会产生一定的射频辐射。

射频辐射安全

为了确保用户的身心健康，来自科学、工程、医药、

健康和工业的专家们与相关组织共同研究制定了射频辐射标准和准则，如下所示：

- 美国联邦通信委员会联邦政府法规汇编第 47 卷第 2 部分 J 子部分。
- 美国国家标准协会 (ANSI)/ 电气和电子工程师协会 (IEEE) 标准 C95.1-1992 版。
- 电气和电子工程师协会标准 C95.1-1999 版。
- 国际非电离辐射防护委员会 (ICNIRP) 于 1998 年颁布的标准。

美国联邦通信委员会监管要求

按照美国联邦通信委员会的监管要求，本产品必须符合美国联邦通信委员会射频辐射限制规定，否则不能在美国市场上销售。并要求制造商可通过在产品上张贴标签的方式，告知用户应注意的事项，提高用户的防辐射意识。

射频辐射控制及操作说明

为了使产品发挥最佳性能及确保符合上述标准中有关职业或受控环境中的辐射限制要求，发送时间不得超过额定因数的 50%（最高 50% 的时间发射），且需遵照下列说明：

仅在发射（讲话）时产生射频能量辐射，接收（收听）和待机时均不会产生。

欧盟指令符合性声明

本产品经独立第三方机构认证，符合欧盟指令“1999/5/EC”中的相关要求。

请注意，本声明仅适合欧盟国家。

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包装清单

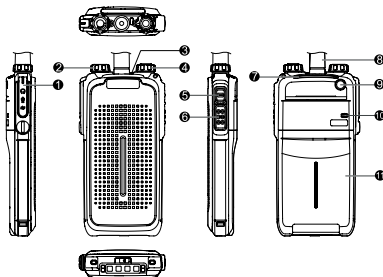
包装盒内含有以下物品。如有任何物品丢失或损坏，请与您所购产品的经销商联系。



备注:天线频段请参考天线底部色环标签内容。若标签未注明频段，则参考主机标签上的具体频段。

熟悉产品

部件介绍



编号	部件名称	编号	部件名称
1	附件接口	7	扬声器
2	电源开关 / 音量控制旋钮	8	天线
3	LED 指示灯	9	TK (顶部键)
4	信道选择旋钮	10	麦克风
5	SK1 (侧键)	11	电池
6	PTT 键 (发射键)	/	/

可编程键

为提升操作便利性，本产品提供 2 个可编程功能快捷键：TK (▲) 和 SK1。具体功能请咨询您的经销商，功能的详细介绍可参阅本产品配套的《功能与操作手册》。



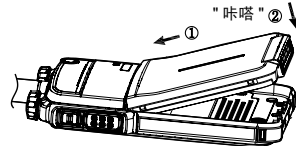
注意:出厂时短按 TK 键已设置为“紧急报警开启”功能，长按 TK 键已设置为“紧急报警关闭”功能。您可通过经销商设置为其他功能快捷键。

LED 指示灯

LED 指示灯	产品工作状态
绿灯闪烁	正在开机
绿灯长亮	正在接收
红灯长亮	正在发送
橙灯慢闪	正在扫描或者漫游
橙灯快闪	紧急状态
橙灯长亮	呼叫建立成功，在橙灯长亮期间您可以按住【PTT】键进行回呼
蓝灯长亮后每 3 秒闪烁一次	蓝灯长亮表示正在开启蓝牙功能，蓝灯每 3 秒闪烁一次表示已成功开启蓝牙功能，但未连接蓝牙设备
蓝灯每 2 秒闪烁一次	已连接蓝牙设备

用前准备

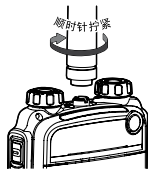
安装电池



如需卸下电池，请先关机。按下图①的箭头方向拨动卡扣以松开电池推钮，按下图②将底部电池推钮往上提起并取出电池。



安装天线



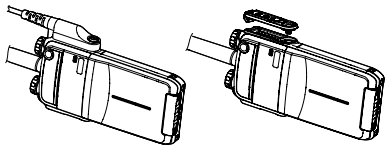
注意: 请勿手持天线顶端甩动本产品, 否则会降低本产品天线的工作性能和使用寿命。

安装附件



注意: 请正确安装附件, 否则本产品的防水性能可能会受到影响。

1. 松开附件接口上的螺钉, 打开附件接口。
2. 将附件插头对准附件接口。
3. 将附件插头上的螺钉拧紧。

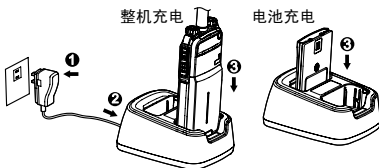


充电



注意:

- 请使用我司指定的充电座充电。
- 为整机充电时, 建议关机并提前参阅《安全信息手册》, 以获取必要的电池安全信息。
- 为获得最佳电池性能, 首次充电时, 请至少充电 3.5 小时。



观察充电座 LED 指示灯可了解当前充电状态:

LED 指示灯	当前充电状态
红色慢闪	待机 (空载)
红色长亮	正在充电
橙色长亮	已充电 90%
绿色长亮	已充满
红色快闪	充电故障

查看电量

如果经销商为本产品设置了【电池电量提示】快捷键, 那么您可以按住该快捷键通过 LED 指示灯和提示音查看电池剩余电量, 松开该快捷键取消查看电池剩余电量。

LED 指示灯 / 提示音	电池电量
LED 指示灯亮绿灯	电量高
LED 指示灯亮橙灯	电量中
LED 指示灯亮红灯	电量低
LED 指示灯亮红灯, 同时伴有低电提示音	电量不足, 请尽快充电或者更换电池

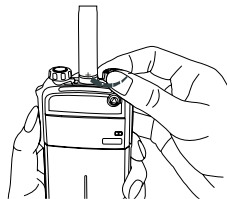
基本操作

开机与关机



调节音量

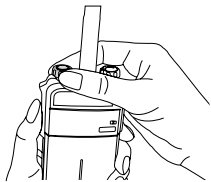
您可以调节输出语音、呼叫提醒提示音和信道播报的音量, 其他提示音的音量由经销商设置。



选择区域

区域是一个信道组, 您可以将具有相同属性的信道列入一个区域中, 便于您对现有信道进行有效管理。本产品支持 3 个区域, 每个区域最多包含 16 个信道。若经销商为您设置了【区域上调】/【区域下调】快捷键, 您可通过按此快捷键可切换至所需区域。

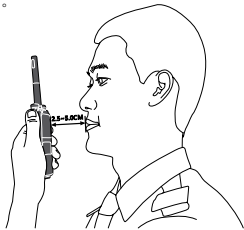
选择信道



如果经销商为本产品开启了信道播报功能，此处切换信道时本产品将播报信道号。

呼叫

开机成功后，您可以进行各种呼叫操作。为保证最佳接收音量，发射时请保持麦克风与嘴的距离为 2.5 ~ 5 厘米。



个呼

发起个呼

在待机界面下，按住【PTT】键即可对当前数字信道上预设的个呼联系人直接发起呼叫。

您可以通过经销商为每个数字信道预设一个“发射联系人”，该联系人可以是个呼联系人，也可以是组呼或全呼联系人。

接听和回复个呼

接收到个呼后，您无需任何操作即可接听，在预设时间内按住【PTT】键可发起回呼。

组呼

发起组呼

在待机状态下，按住【PTT】键即可对当前数字信道上预设的组呼联系人发起组呼。

接听和回复组呼

接收到组呼后，您无需任何操作即可接听，在预设时间内按住【PTT】键可发起回呼。

模拟信道呼叫（无信令）

在模拟信道上，如需发射，请按住【PTT】键并对着麦克风讲话。如需接收，请松开【PTT】键。

使用信令发起呼叫的操作方法请参阅本产品配套的《功能与操作手册》。

紧急报警

遇到紧急情况时，您可以通过此功能来向同伴或控制中心寻求帮助。

紧急报警功能需由经销商为您配置和开启，详情请参阅本产品配套的《功能与操作手册》。

故障处理

故障描述	原因分析	解决方法
无法开机	电池可能未正确安装	取出电池并重新装入
	电池电量可能已经耗尽	充电或更换电池
	电池触点污浊或受损而导致接触不良	清洁电池触点
接收信号时声音小、断续或无声	电池电压过低	充电或更换电池
	音量较小	通过【音量控制】旋钮调大音量
	天线松动或安装不到位	关机后重新安装天线
	扬声器堵塞或受损	进行简单的外部清洁
无法与组内其他成员通话	所用频率或信令设置与组内其他成员不同	设置与组内其他成员相同的频率和信令
	数字、模拟信道设置不当	设置相同的数字信道或模拟信道
	距离组内其他成员太远	尽量靠近其他成员，确认位于有效通讯范围
信道中出现其他通话声或杂音	受到同频用户的干扰	更改为新的频点，或调整静噪级别
	未设置信令	对组内所有对讲机进行信令设置，以防止同频干扰。但必须同时更改组内所有手持终端的信令设置
噪声较大	与其他成员之间的通讯距离过远	靠近其他成员
	所处位置不佳，如受高大建筑物阻挡，或位于地下室等	移至开阔平坦地后，开机重试
	受外界环境或电磁干扰	避开可能引起干扰的设备
GPS 无法定位	所处位置不佳，以致接收不到 GPS 信号	移至开阔平坦地后重试
蓝牙设备无法配对	蓝牙设备电量不足	为蓝牙设备充电
	蓝牙设备与本产品距离太远	将蓝牙设备移近本产品

如上述方法仍未解决您的问题，或您遇到一些其他的故障，请联系当地经销商或我司以获取更多的技术支持。

功能说明

本机型所支持的功能如下表所示，相关功能详细描述请参考《功能与操作手册》。

功能分类	具体功能
基本设置	<ul style="list-style-type: none">提示设置：指示灯，提示音，振动音频设置：麦克风自动增益，无条件高音增强，音质音量优化器，声反馈抑制扫描设置：开启扫描，关闭扫描，设置扫描列表其他：功率级别，声控，一键呼叫，租赁，编程，隐蔽模式
数字功能	<ul style="list-style-type: none">语音业务：组呼，个呼，全呼补充业务：呼叫提示，对讲机检查，远程监听，对讲机激活，对讲机遥毙，优先打断，接收振动，超时禁发个人安全：紧急报警，倒放，单独工作加密网络：脱网，漫游其他：虚拟集群，发射莫尔斯码
模拟功能	<ul style="list-style-type: none">语音业务：无信令呼叫，有信令呼叫补充业务：压扩，超时禁发，接收振动，监听，静噪打开，静噪级别调整，亚音频/亚音数码个人安全：紧急报警，倒放，单独工作扰频脱网发射莫尔斯码
附件扩展	<ul style="list-style-type: none">蓝牙
API	<ul style="list-style-type: none">GPS 上传对讲机注册服务遥测

保养与清洁

为了保证本产品发挥其良好性能，以及延长其使用寿命，请熟悉以下内容，以便更好地对本产品进行日常保养与清洁。

保养

- 请勿用硬物穿刺或刮花本产品。
- 请勿将本产品存放于含有腐蚀电子电路物质的环境。
- 携带或使用本产品过程中，请勿用手提天线或耳机线。
- 当不使用附件时，请盖好附件接口盖。

清洁



注意：清洁之前，请关机并取出电池。

- 请定期使用洁净干燥的无绒布或毛刷拭去本产品表面及充电极片附着的粉尘。
- 本产品的按键、控制旋钮和机壳极易变脏。可用中性洗涤剂和无纺布对其进行清洁，请勿用去污剂、酒精、喷雾剂或石油制剂等化学药剂进行清洁，以避免产品表面和外壳受损。
- 清洁之后，务必保证本产品彻底干燥，否则请勿使用。

选购配件

本产品主要的选购附件已包含在如下列表中，如需更多附件信息，请咨询您当地的经销商或拨打我司服务热线 400-830-7020。



注意：请使用我司指定的配件。若擅自使用未经许可的配件，则由此所导致的一切后果，由用户自行负责。

配件类型	配件型号	配件名称
电源类	BL1103	锂离子电池（1100mAh）
	BL1809	锂离子电池（1800mAh）
	CH04L01	携带式充电器
	CHV09	座充车载电源适配器
	MCA05-X	电池分析仪
	MCA10	X1ei 排充
	POA53	锂电适配器
	POA58	X1ei 系列排充电池充电兜
音频类	EAN19	三线透明管双 PTT 线控耳机（米色）
	EAN21	三线透明管监控耳机（米色）
	EAN22	分体式透明管耳机
	EAN24	二线透明管监控耳机（黑色）
	EHN20	分体可调节耳挂式耳机
	EHN21	分体 C 型耳挂式耳机
	EHW02	无线耳机
	ESN14	分体耳塞式耳机
	EWN07	无线线控数字隐形耳机（项圈式感应器）
	EWN08	无线数字隐形耳机（扁平式感应器）
POA47	无线指环 PTT	

配件类型	配件型号	配件名称
线材类	PC45	编程连接线（USB 接口）
携带类	NCN009	隐藏式背心
	PCN005	携带夹
	NCN009-C	携带背心（白色）

保修范围与期限

我司承诺，凡我司生产的产品，自购买之日起，在正常使用、操作与维护条件下，出现材料或制造工艺方面的缺陷，可享受以下规定的保修服务。

主机 24 个月
标配附件（包括电池、充电器） 12 个月



Preface

Thanks for your favor in our product. This manual is helpful for you to quickly know how to use the product. For detailed features and operations, please refer to the Feature Description and Operation Manual along with the product.

To avoid body injury or property loss caused by misoperation, please read the Safety Information Booklet carefully before use.

This manual is applicable to the following product:

X1ei Digital Trunking Portable Radio

Disclaimer

Hytera Communications Corporation Limited (the Company) endeavors to achieve the accuracy and completeness of this manual, but no warranty of accuracy or reliability is given. All the specifications and designs are subject to change without notice due to continuous technology development. No part of this manual may be copied, modified, translated, or distributed in any manner without the express written permission of us.

We do not guarantee, for any particular purpose, the accuracy, validity, timeliness, legitimacy or completeness of the Third Party products and contents involved in this manual.

If you have any suggestions or would like to learn more details, please visit our website at: <http://www.hytera.com>.

RF Radiation Information

This product must be restricted to operations in an occupational/controlled RF exposure environment. Users must be fully aware of the hazards of the exposure and able to exercise control over their RF exposure to qualify for the higher exposure limits.

RF Radiation Profile

Radio Frequency (RF) is a frequency of electromagnetic radiation in the range at which radio signals are transmitted. RF technology is widely used in communication, medicine, food processing and other fields. It may generate radiation during use.

RF Radiation Safety

In order to ensure user health, experts from relevant

industries including science, engineering, medicine and health work with international organizations to develop standards for safe exposure to RF radiation. These standards consist of:

- United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J;
- American National Standards Institute (ANSI)/ Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992;
- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999;
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998;

FCC Regulations

Federal Communication Commission (FCC) requires that all radio communication products should meet the requirements set forth in the above standards before they can be marketed in the U.S, and the manufacturer shall post a RF label on the product to inform users of operational instructions, so as to enhance their occupational health against exposure to RF energy.

Operational Instructions and Training Guidelines

To ensure optimal performance and compliance with the occupational/controlled environment RF energy exposure limits in the above standards and guidelines, users should transmit not more than 50% of the time and always adhere to the following procedures:

RF energy will be generated only when the radio is transmitting.

EU Regulatory Conformance

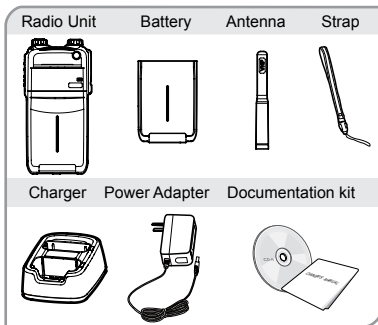
As certified by the qualified laboratory, the product is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC. Please note that the above information is applicable to EU countries only.

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Items in the Package

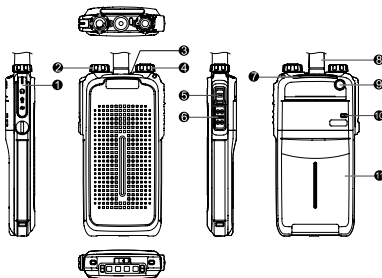
Please unpack carefully and check if all items listed below are received. If any item is missing or damaged, please contact your dealer.



Note: The frequency band is marked on the label of antenna; if not, please refer to the label on the radio for frequency band information.

Product Overview

Product Controls



No.	Part Name	No.	Part Name
1	Accessory Connector	7	Speaker
2	Power On/Off/Volume Control Knob	8	Antenna
3	LED Indicator	9	TK (Top Key)
4	Group Call Selector Knob	10	Microphone
5	SK1 (Side Key 1)	11	Battery
6	PTT (Push-to-Talk) Key	/	/

Programmable Keys

For enhanced convenience, you may request your dealer to program the **TK** (⊕) and **SK1** as shortcuts to certain functions. Please refer to the Feature Description and Operation Manual along with the product for more details.



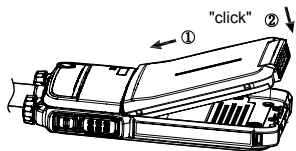
Caution: The **TK** key is programmed with emergency feature by default (short press: Emergency On; long press: Emergency Off). It is programmable by your dealer.

LED Indicator

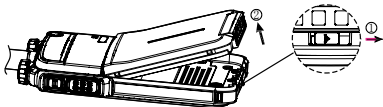
LED Indication	Radio Status
The LED indicator flashes green.	Powering on
The LED indicator flashes green slowly.	Standby
The LED indicator glows green.	Receiving
The LED indicator glows red.	Transmitting.
The LED indicator flashes red.	Establishing a call (the LED indicator on the calling radio flashes).
The LED indicator flashes orange rapidly.	Establishing a Full Off Air Call Set-Up (FOACSU) (the LED indicator on the called radio flashes).
The LED indicator flashes orange slowly.	Hunting
The LED indicator glows orange.	Call hung period. No voice is being transmitted or received on the traffic channel during a call. Within such period, you can hold down the PTT key to talk to the other party.
The LED indicator glows blue and then flashes once every three seconds.	The LED indicator glowing blue indicates the BT feature is being started; The LED indicator flashing blue once every three seconds indicates the BT feature is enabled, but no Bluetooth device is connected.
The LED indicator flashes once every two seconds.	A wireless device is connected.

Before Use

Attaching the Battery



To remove the battery, turn off the radio first. Slide the battery latch in direction as arrow ① shows to unlock the battery, and then remove the battery as arrow ② shows.



Attaching the Antenna



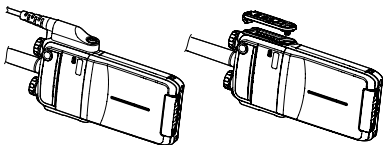
Caution: Do not hold the radio by its antenna, otherwise the performance and lifespan of the antenna will be reduced.

Attaching the Accessories



Caution: Please attach the accessory properly; otherwise, waterproof performance of the radio may get affected.

1. Loosen the screw on the accessory connector cover to uncover the connector.
2. Align the accessory plug with the connector.
3. Tighten the screw on the accessory plug.



Charging the Battery

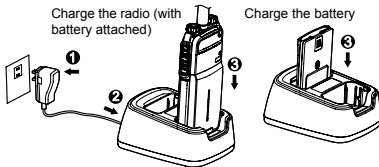


Caution:

- Use the charger specified by the Company to charge the battery.
- Make sure the radio is powered off before charging. Read the Safety Information Booklet in advance to get necessary safety information.
- Charge a new battery for at least 3.5 hours before initial use for best performance.

Charge the radio (with battery attached)

Charge the battery



Charging Status Indication (on charger):

LED Indication	Charging Status
The LED Indicator flashes red slowly.	Standby (no load)
The LED Indicator glows red.	Charging
The LED indicator glows orange.	90% charged
The LED indicator glows green.	Fully charged
The LED Indicator flashes red rapidly.	Charging failed

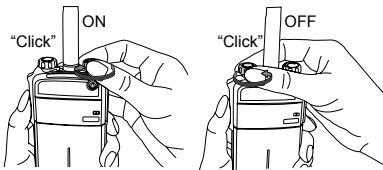
Checking the Battery Power

You can check the current battery power by holding down the programmed **Battery Power Indicator** key preset by your dealer. And release the key to exit. Battery power indications and alert tone are listed below:

LED Indication/Tone	Battery Power
The LED Indicator glows green.	High
The LED Indicator glows orange.	Medium
The LED Indicator glows red.	Low
The LED Indicator glows red and an alert tone sounds.	The battery runs low. Please recharge or replace the battery for proper radio operation

Basic Operations

Turning the Radio On/Off



Initial Registration

Before the radio can make the communication normally, it needs to register in the system. Once you turn on the radio, it will start hunting the control channels for available base station and attempt to make the registration automatically.

Hunting the Control Channel

The radio starts hunting the control channel for available base station automatically upon power-on. During hunting, the LED indicator flashes orange slowly. There are two hunt plans: Fixed Control Channel and Flexible Control Channel. You may request your dealer to set the appropriate plan for your radio. Please refer to the Feature Description and Operation Manual along with the product for details.

Registering

When the radio searches for a control channel, the radio determines whether the base station allows it to register. Upon successful registration, the radio is ready for communication. If you want the radio

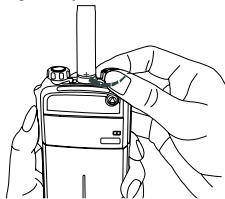
to register with another base station, press the programmed **Manual Current Hunt** key to hunt again.



Note: For smooth registration, it is highly recommended to put the frequently used frequencies of base stations in the control channel list via the dealer.

Adjusting the Volume

You can adjust the volume of output voice, signaling side tone and channel notification tone by rotating the **Volume Control Knob**. For other tones, the volume will be configured by the dealer.



Selecting a Group Contact

After the radio is registered successfully after power-on, you can select a group contact through any of the following methods:

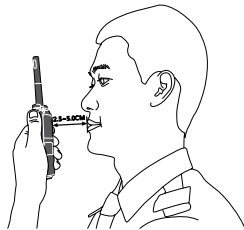
- **Knob:** Rotate the **Group Call Selector Knob** to select an appropriate group contact. An audio alert will be given in case of no group contact preset for this knob.
- **Shortcut key:** If the dealer predefines the programmed **Group Up** and **Group Down** keys, you can select the group contact in an ascending way or descending way by using the keys accordingly.

Call Services

After the radio is powered on and registered, you can make and receive calls. To ensure an optimal volume of the receiving radio, keep the microphone about 2.5 to 5 centimeters away from your mouth when transmitting.



Note: If the radio does not register successfully or you select an empty group by rotating the Group Call Selector Knob, the radio cannot initiate any call.



Private Call

There are two ways to answer the private call: FOACSU (Full Off Air Call Set-Up) and OACSU (Off Air Call Set-Up). The specific way is decided by the settings made for the called radio via the network management application.

- **FOACSU:** The called party needs to answer the call manually.
- **OACSU:** The called party answers the call without any operation.

Initiating a Private Call

After initiating a private call (FOACSU call), the radio will give the ring indication until the called party

answers this call. You can make a private call through any of the following ways:

- Press the programmed **ReDial** key to call the last person you have contacted, or press the programmed **BackDial** key to call the last person who has contacted you.
- If your dealer selects “Private Call Contact” for the One Touch Call/Menu feature, you can press the programmed **One Touch Call/Menu** key to initiate a private call.

Receiving a Private Call

- Upon the receipt of an FOACSU call, the radio will ring. You may hold down the **PTT** key within the preset time period to answer the call. After the call is established successfully, the radio will emit a tone.
- When receiving an OACSU call, the radio will establish it automatically.

Voice Communication

After a private call is established, either of the calling or called party can hold down the **PTT** key to talk when the talk right is free.

End of Communication

The call will be terminated when any of the following situations occurs:

- Neither party holds down the **PTT** key to talk before the preset time period expires.
- The call duration exceeds the time preset by the dealer.
- Either of the parties ends the ongoing call.
- The base station signal is lost.
- Either of the parties selects an empty group via the **Group Call Selector Knob** during the call.
- A pre-emptive call or an emergency call occupies the channel.

Group Call

The Group Call includes group call and broadcast group call. In a group call, both the calling party and the called party can talk. However, in a broadcast group call, only the calling party can talk while the called party can listen to it only. The radio cannot make a broadcast group call unless the dealer authorizes it.

As a broadcast group call is made in the same manner as a group call, we will only detail their differences in the following introductions.

Initiating a Group Call

You can make a group call through any of the following ways:

- If your dealer selects “Group Call Contact” for the One Touch Call/Menu feature, you can press the programmed **One Touch Call/Menu** key to initiate a group call.
- Rotate the **Group Call Selector Knob** to select the appropriate contact, and then hold down the **PTT** key to initiate a group call.

Receiving a Group Call

You can answer a group call without any operation after this call is established successfully. After the call is established successfully, the radio will emit a tone.

Late Entry

With the Late Entry feature, a group member that has missed the start of a group call can join this active group call later without any operation.

The Late Entry feature is applicable to the following situations:

- The radio moves within the coverage area after the group call is established.
- The radio is turned on after the group call is established.
- The radio is busy with other call services when the group call is established. After such other

call services end, the radio will join this group call.

- The signal of the base station recovers after the group call is established.
- The radio is added to the group after the group call is established.

Voice Communication

- Group call: After a group call is established, either of the calling or called party can hold down the **PTT** key to talk when the talk right is free.
- Broadcast group call: After the broadcast group call is established, only the calling party can talk by holding down the **PTT** key.

End of Communication

The call will be terminated when any of the following situations occurs:

- Neither party holds down the **PTT** key to talk before the preset time period expires (except in the broadcast group call).
- The call duration exceeds the time preset by the dealer.
- The calling party ends the in-progress call (if the called party ends the call, he/she will exit this group call but can rejoin via Late Entry feature).
- The base station signal is lost.
- A pre-emptive call or an emergency call occupies the channel.

Emergency Call

In case of emergency, you can use Emergency Call to ask for help from your companion or the control center.

Emergency Call needs to be configured and enabled by your dealer. Please refer to the Feature Description and Operation Manual along with the product for details.

Troubleshooting

Phenomena	Analysis	Solution
The radio cannot be powered on.	The battery may be improperly installed.	Remove the battery and then reattach it.
	The battery power may run out.	Recharge or replace the battery.
	The battery may suffer from poor contact caused by dirtied or damaged battery contacts.	Clean the battery contacts.
The radio cannot make a registration.	The radio may not detect signals from the base station.	Make sure the radio is within the coverage of the base station.
	The radio may be unauthorized.	Contact the base station manager to check whether the radio is authorized in the network management system.
The radio registers repeatedly.	The signal may be discontinuous.	Make sure the radio is within the coverage of the base station.
The radio cannot establish a call.	The signal may be poor.	Make sure the radio is within the coverage of the base station.
No voice is heard after a call is established.	The radio ID may be repeated.	Contact the base station manager to check whether the radio ID is repeated in the network management system.
The called party disconnects repeatedly during communication.	The signal may be discontinuous.	Make sure the radio is within the coverage of the base station.
During receiving, the voice is weak, discontinuous or totally inactive.	The battery power may be low.	Recharge or replace the battery.
	The volume level may be low.	Increase the volume by rotating the Volume Control Knob clockwise, or request your dealer to disable the Digital MIC AGC feature.
	The antenna may get loose or may be improperly installed.	Turn off the radio and reattach the antenna.
	The speaker may be blocked or damaged.	Clean the surface of the speaker.
You cannot communicate with other members.	The signal may be poor.	Make sure you and the talk party(ies) are within the communication range.
The voice is unclear.	The signal may be poor.	Make sure you and the talk party(ies) are within the communication range.
The noise is too loud.	The signal may be poor.	Make sure you and the talk party(ies) are within the communication range.
	You may locate in an unfavorable position. For example, your communication may be blocked by high buildings or frustrated in the underground areas.	Move to an open and flat area, and restart the radio to try again.
	You may suffer from external disturbance (such as electromagnetic interference).	Stay away from equipment that may cause interference.
Wireless devices cannot be paired.	The battery power of wireless devices may be low.	Recharge the wireless devices.
	Wireless device may be too far away from the radio.	Move the wireless device towards the radio.

5

If the above solutions cannot fix your problems, or you may have some other queries, please contact us or your local dealer for more technical support.

Available Features

Available features of this radio are listed below. Please refer to the *Feature Description and Operation Manual* for detailed feature descriptions.

Feature Type	Detailed Feature
Basic Setting	<ul style="list-style-type: none">• Indication: LED, Tone, Vibration• Audio: Mic AGC, Treble Boost, LQO, Audio Feedback Suppression• Operation Mode Switch• Other Features: Power Level, VOX, Covert Mode, One Touch Call/Menu, Renting
Mobility management	<ul style="list-style-type: none">• Hunt• Roam
Voice Services	<ul style="list-style-type: none">• Group Call• Private Call• PSTN/PABX Call• Broadcast Group Call• All Call• Priority• Call Queue• Time-out Timer (TOT)
Control Services	<ul style="list-style-type: none">• Over the Air Programming (OTAP)• Ambience Listening• Interrupt• Override
Personal Security Services	<ul style="list-style-type: none">• Emergency Alarm• Man Down• Lone Worker
Communication Security Services	<ul style="list-style-type: none">• Authentication• Encrypt• Stun• Revive• Kill
Accessory-related Features	<ul style="list-style-type: none">• BT

Care and Cleaning

To guarantee optimal performance as well as a long service life of the product, please follow the tips below.

Product Care

- Do not pierce or scrape the product.
- Keep the product far away from substances that can corrode the circuit.
- Do not hold the product by its antenna or earpiece cable directly.
- Attach the accessory connector cover when the accessory is not in use.

Product Cleaning




Caution: Turn off the product and remove the battery before cleaning.

- Clean up the dust and fine particles on the product surface and charging piece with a clean and dry lint-free cloth or a brush regularly.
- Use neutral cleanser and a non-woven fabric to clean the keys, control knobs and front case after long-time use. Do not use chemical preparations such as stain removers, alcohol, sprays or oil preparations, so as to avoid surface case damage.
- Make sure the product is completely dry before use.

Optional Accessories

The following items are the main optional accessories for the product, and please consult your local dealer for more other accessories.

 **Caution:** Use the accessories specified by the Company only. If not, the Company shall not be liable for any losses or damages arising out of use of unauthorized accessories.

Type	Model	Name
Power Supply	BL1103	Li-ion battery (1100 mAh)
	BL1809	Li-ion battery (1800 mAh)
	CH04L01	Portable Charger
	CHV09	Vehicle Adapter for Charger
	MCA05-X	Battery Optimizing System
	MCA10	MCU Multi-unit Rapid-rate Charger
	POA53	Li-ion Battery Adapter for X1ei Series
	POA58	Multi-unit Charger Battery Adapter for X1ei
Audio Accessories	EAN19	3-wire Surveillance Earpiece with Transparent Acoustic Tube (Beige)
	EAN21	3-wire Surveillance Earpiece with Transparent Acoustic Tube (Beige)
	EAN22	Detachable Earpiece with Transparent Acoustic Tube
	EAN24	2-wire Surveillance Earpiece with Transparent Acoustic Tube (Black)
	EHN20	Swivel Earset
	EHN21	C-Earset
	EHW02	Wireless Earpiece
	ESN14	Earbud
	EWN07	Digital Wireless Covert Earpiece With in-Line Controller (Neckloop Sensor)
	EWN08	Digital Wireless Covert Earpiece (Flatpack Sensor)
POA47	Wireless Ring PTT	
Cable	PC45	Programming Cable (USB port)
Carrying Accessories	NCN009	Covert Shoulder Harness
	PCN005	Belt Clip
	NCN009-C	Covert Radio Zip Up Vest (White)



致用户

非常感谢您对我们产品的青睐！本手册旨在让您快速掌握本产品的使用，如需了解产品详细功能和操作，请参阅本产品配套的《功能与操作手册》。

为了避免因不当操作而给您带来身体伤害或财产损失，请于使用本产品前仔细阅读《安全信息手册》。

本手册适用于以下机型：

X1ei 数字集群手持终端

免责声明

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如需更多信息或对本手册有任何建议，欢迎访问我们的网站：<http://www.hytera.com>，或拨打我司服务热线 400-830-7020。

射频辐射信息

本产品仅限于能够满足射频能量辐射要求的职业应用。使用者必须清楚了解射频辐射危害并可采取相应措施，满足射频辐射限定要求。

射频辐射常识

射频指可以辐射到空间的电磁频率，是通讯、医疗、食品加工等领域广泛使用的一种技术，在使用过程中会产生一定的射频辐射。

射频辐射安全

为了确保用户的身心健康，来自科学、工程、医药、健康和工业的专家们与相关组织共同研究制定了射频辐射标准和准则，如下所示：

- 美国联邦通信委员会联邦政府法规汇编第 47 卷第 2 部分 J 子部分。
- 美国国家标准协会 (ANSI)/ 电气和电子工程师协会 (IEEE) 标准 C95.1-1992 版。
- 电气和电子工程师协会标准 C95.1-1999 版。

- 国际非电离辐射防护委员会 (ICNIRP) 于 1998 年颁布的标准。

美国联邦通信委员会监管要求

按照美国联邦通信委员会的监管要求，本产品必须符合美国联邦通信委员会射频辐射限制规定，否则不能在美国市场上销售。并要求制造商可通过在产品上张贴标签的方式，告知用户应注意的事项，提高用户的防辐射意识。

射频辐射控制及操作说明

为了使产品发挥最佳性能及确保符合上述标准中有关职业或受控环境中的辐射限制要求，发送时间不得超过额定因数的 50%（最高 50% 的时间发射），且需遵照下列说明：

仅在发射（讲话）时产生射频能量辐射，接收（收听）和待机时均不会产生。

欧盟指令符合性声明

本产品经独立第三方机构认证，符合欧盟指令“1999/5/EC”中的相关要求。

请注意，本声明仅适合欧盟国家。

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包装清单

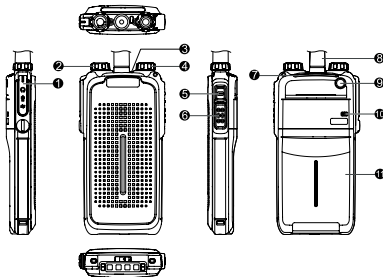
包装盒内含有以下物品。如有任何物品丢失或损坏，请与您所购产品的经销商联系。



备注: 天线频段请参考天线底部色环标签内容。若标签未注明频段，则参考主机标签上的具体频段。

熟悉本产品

部件介绍



编号	部件名称	编号	部件名称
1	附件接口	7	扬声器
2	电源开关 / 音量控制旋钮	8	天线
3	LED 指示灯	9	TK (顶部键)
4	组呼选择旋钮	10	麦克风
5	SK1 (侧键)	11	电池
6	PTT 键 (发射键)	/	/

可编程键

为提升操作便利性，本产品提供 2 个可编程功能快捷键：SK1、TK (⊙)。具体功能请咨询您的经销商，功能的详细介绍可参阅本产品配套的《功能与操作手册》。



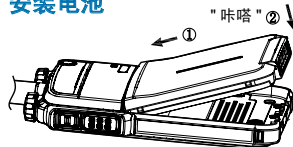
注意: 出厂时，短按【TK】键已设置为“紧急报警开启”功能，长按【TK】键已设置为“紧急报警关闭”功能。您可通过经销商设置为其他功能快捷键。

LED 指示灯

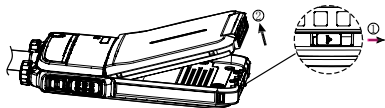
LED 指示灯	产品工作状态
绿灯闪烁	正在开机
绿灯慢闪	正常待机
绿灯长亮	正在接收
红灯长亮	正在发射
红灯闪烁	正在建立呼叫 (主叫方显示)
橙灯快闪	正在建立 FOACSU 个呼 (被叫方显示)
橙灯慢闪	正在扫描
橙灯长亮	橙灯长亮期间，您可以按住【PTT】键通话进行回呼
蓝灯长亮后每 3 秒闪烁一次	正在开启蓝牙时蓝灯长亮，成功开启蓝牙后蓝灯每 3 秒闪烁一次 (此时未连接蓝牙设备)
蓝灯每 2 秒闪烁一次	已连接蓝牙设备

用前准备

安装电池



如需卸下电池，请先关闭本产品。按下图①的箭头方向拨动卡扣以松开电池推钮，按下图②将底部电池推钮往上提起并取出电池。



安装天线

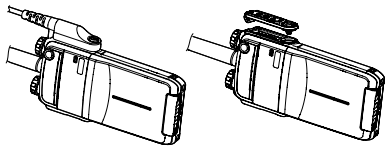


注意: 请勿手持天线顶端甩动本产品, 否则会降低本产品天线的工作性能和使用寿命。

安装附件

注意: 请正确安装附件, 否则本产品的防水性能可能会受到影响。

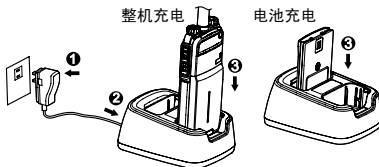
1. 松开附件接口上的螺钉, 打开附件接口。
2. 将附件插头对准附件接口。
3. 将附件插头上的螺钉拧紧。



充电

注意:

- 请使用我司指定的充电座充电。
- 为整机充电时, 建议关机并提前参阅《安全信息手册》, 以获取必要的电池安全信息。
- 为获得最佳电池性能, 首次充电时, 请至少充电 3.5 小时。



观察充电座 LED 指示灯可了解当前充电状态:

LED 指示灯	当前充电状态
红色慢闪	待机 (空载)
红色长亮	正在充电
橙色长亮	已充电 90%
绿色长亮	已充满
红色快闪	充电故障

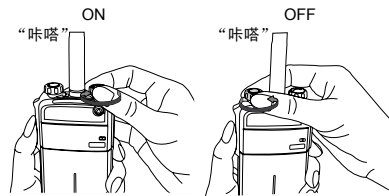
查看电量

如果经销商为本产品设置了【电池电量提示】快捷键, 那么您可以按住该快捷键通过 LED 指示灯和提示音查看电池剩余电量, 松开该快捷键取消查看电池剩余电量。

LED 指示灯 / 提示音	电池电量
LED 指示灯亮绿灯	电量高
LED 指示灯亮橙灯	电量中
LED 指示灯亮红灯	电量低
LED 指示灯亮红灯, 同时伴有低电提示音	电量不足, 请尽快充电或者更换电池

基本操作

开机与关机



登记

为保证本产品的正常使用, 开机后本产品将自动选择合适的基站上网登记。

扫描控制信道

本产品到基站登记时, 需要先扫描控制信道以搜索可进行登记的集群系统基站。

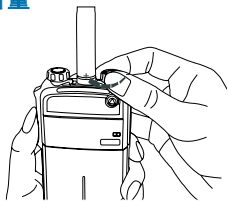
开机后自动开始扫描。扫描时, LED 慢闪橙灯。扫描控制信道所采用的方式有固定控制信道和灵活控制信道两种, 详情请参阅本产品配套的《功能与操作手册》。您需要通过经销商配置本产品采用的扫描方式。

登记

扫描到基站信号时, 判断该基站是否允许本产品入网登记。登记成功后, 您可以进行通信。如果您想选择其他的基站进行登记, 可按【手动执行扫描】快捷键重新扫描。

备注: 为保证登记顺畅, 请通过经销商将常用的基站频点写入扫描控制信道列表。

调节音量



您可以调节输出语音、信令侧音和组号播报的音量，其他提示音的音量由经销商设置。

选择组呼联系人

开机登记成功后，您可以通过以下方式选择组呼联系人：

- 旋钮：旋转【组呼选择】旋钮选择所需的组呼联系人。当旋钮没有对应的组呼联系人时，本产品将发出提示音，提示您当前选择的为空组。
- 快捷键：如果经销商已为您配置【组上调】或者【组下调】快捷键，那么您可以通过此快捷键按照递增或者递减方式切换组群中的组呼。

呼叫

开机登记成功后，您可以进行各种呼叫操作。为了保证接收音量最佳，发射时请保持麦克风与嘴的距离为2.5 ~ 5 厘米。



备注：当本产品未登记或【组呼选择】旋钮选择“空组”时，不能发起呼叫。



个呼

个呼呼叫类型有两种：完全停播呼叫建立（FOACSU）和停播呼叫建立（OACSU），该呼叫类型由集群系统设置。

- FOACSU 个呼：建立呼叫时，主叫方有铃声提示，被叫方需要手动接听建立呼叫。
- OACSU 个呼：建立呼叫时，主叫方无铃声提示，被叫方接收到呼叫后自动建立呼叫。

发起个呼

个呼发起后，在等待被叫应答过程中，本产品会发出铃声提示（FOACSU 个呼）。您可以通过以下方式发起个呼。

- 通过按【重拨】快捷键或者【回拨】快捷键，呼叫最近的呼出或者呼入联系人。
- 当经销商为您配置【一键呼叫】的呼叫对象为“个呼联系人”时，您也可以通过【一键呼叫】快捷键发起个呼。

接听个呼

- 当接收到 FOACSU 个呼时，本产品有来电振铃提示。如果您在预设时间内按【PTT】键，将建立呼叫。呼叫建立成功后，同时本产品将发出提示音。

- 当接收到 OACSU 个呼时，本产品呼叫自动建立。

语音通信

个呼建立后，主叫和被叫都可以在 PTT 空闲时按住【PTT】键进行讲话。

结束通信

当出现以下情况时，语音通信将结束：

- 双方无人按【PTT】键讲话，超过预设时间。
- 通话总时间超过预设时间（该时间可由经销商配置）。
- 通话过程中，主叫或被叫的任意一方挂机。
- 基站信号丢失。
- 主叫或被叫【组呼选择】旋钮指向空组。
- 抢占呼叫或紧急呼叫抢占了本通话的业务信道。

组呼

组呼分为普通组呼和广播组呼。普通组呼中，主被叫均可以发射语音，而广播组呼中，仅主叫可以发射语音，被叫只能接收语音。当经销商为您开启广播组呼权限时，您才能发起广播组呼。

两种组呼的操作方法大部分相同，此处仅介绍普通组呼，下文仅在差异处进行区分。

发起组呼

您可以通过以下方式发起组呼。

- 当经销商为您配置【一键呼叫】的呼叫对象为“组呼联系人”时，您也可以通过【一键呼叫】快捷键对当前组呼联系人发起呼叫。
- 通过旋转【组呼选择】旋钮选择所需的组呼联系人，按住【PTT】即可对当前组呼联系人发起呼叫。

接听组呼

接收到组呼后，本产品将自动建立呼叫。建立呼叫成功后，发出提示音。

迟后进入

组呼建立后，在通话过程中允许未能加入该组呼的成员加入该呼叫。该成员不需要执行任何操作，可自动加入该呼叫。

本功能常用于以下情况：

- 组呼发起时被叫未在通话组工作范围内，在通话过程中进入到通话组工作范围。
- 组呼发起时，被叫未开机，通话过程中被叫开机了。
- 组呼 A 发起时，被叫正参与其他个呼 B 或组呼 C，结束该呼叫（B 或 C）后，A 通话还在进行。
- 组呼发起时，被叫所在位置基站信号弱或受到无线干扰，通话过程中被叫所在位置信号好转。
- 组呼发起后，新加入该组的成员。

语音通信

- 普通组呼：组呼建立后，主叫和被叫都可以在 PTT 空闲时按住【PTT】键进行讲话。
- 广播组呼：组呼建立后，仅主叫可以按住【PTT】键进行讲话，被叫仅能接收语音。

结束通信

当出现以下任一情况时，语音通信将结束。

- 双方无人按【PTT】讲话，超过预设时间。（广播组呼除外）
- 通话总时间超过预设时间（该时间可由经销商配置）。
- 通话过程中，主叫挂机（被叫挂机仅自身退出组呼通信，通过“迟后进入”可以重新加入该呼叫）。
- 基站信号丢失。
- 预占呼叫或紧急抢占了本通话的业务信道。

紧急呼叫

遇到紧急情况时，您可通过此功能来向同伴或控制中心寻求帮助。

紧急呼叫功能需由经销商为您配置和开启，详情请参阅本产品配套的《功能与操作手册》。

故障处理

故障描述	原因分析	解决方法
无法开机	电池可能未正确安装	取出电池并重新装入
	电池电量可能已经耗尽	充电或更换电池
	电池触点污浊或受损而导致接触不良	清洁电池触点
无法登记	不能检测到基站信号	确保本产品在基站的有效信号范围内
	不是基站的合法用户，不能进行登记	联系基站负责人，确认本产品是否为基站网管系统的合法用户
反复登记	信号时断时续	确保本产品在基站的有效信号范围内
不能建立呼叫	通讯信号质量差	确保本产品在基站的有效信号范围内
呼叫建立后没有声音	产品 ID 可能重复	联系基站负责人，确认网管系统中本产品的 ID 是否重复
呼叫中被叫反复下线	信号时断时续，下线又迟后进入呼叫	确保本产品在基站的有效信号范围内
接收信号时声音小、断续或无声	电池电量过低	充电或更换电池
	音量较小	通过【音量控制】旋钮增大音量或者联系经销商关闭数字麦克风自动增益功能
	天线松动或安装不到位	关机后取下天线并重新装上，再开机
	扬声器堵塞或受损	进行简单的外部清洁
无法与组内其他成员通话	通讯信号质量差	确保通话成员在有效通讯范围内
话音不清晰	通讯信号质量差	确保通话成员在有效通讯范围内
	通讯信号质量差	确保通话成员在有效通讯范围内
	所处位置不佳，如受高大建筑物阻挡，或位于地下室等	移至开阔平坦地后，开机重试
噪声较大	受外界环境或电磁干扰	避开可能引起频率干扰的设备
	蓝牙设备电量不足	为蓝牙设备充电
蓝牙设备无法配对	蓝牙设备与主机距离太远	将蓝牙设备移近主机

如上述方法仍未解决您的问题，或您遇到一些其他的故障，请联系当地经销商或我司以获取更多的技术支持。

功能说明

本机型所支持的功能如下表所示，相关功能详细描述请参考《功能与操作手册》。

功能分类	具体功能
基本设置	<ul style="list-style-type: none">提示设置：指示灯，提示音，振动音频设置：麦克风自动增益，无条件高音增强，音质音量优化器，声反馈抑制模式切换其他：功率级别，声控，隐蔽模式，一键呼叫，租赁
移动管理	<ul style="list-style-type: none">扫描漫游
语音业务	<ul style="list-style-type: none">组呼个呼PSTN/PABX 呼叫广播呼叫全呼呼叫优先级呼叫排队超时禁发
补充业务	<ul style="list-style-type: none">空口写频环境侦听强插强拆
个人安全	<ul style="list-style-type: none">紧急报警倒放单独工作
通信安全	<ul style="list-style-type: none">鉴权加密遥晕复活遥毙
附件扩展	<ul style="list-style-type: none">蓝牙

保养与清洁

为了保证本产品发挥其良好性能，以及延长其使用寿命，请熟悉以下内容，以便更好地对本产品进行日常保养与清洁。

保养

- 请勿用硬物穿刺或刮花本产品。
- 请勿将本产品存放于含有腐蚀电子电路物质的环境。
- 携带或使用本产品过程中，请勿用手提天线或耳机线。
- 当不使用附件时，请盖好附件接口盖。

清洁



注意：清洁之前，请关机并取出电池。

- 请定期使用洁净干燥的无绒布或毛刷拭去本产品表面及充电极片附着的粉尘。
- 本产品的按键、控制旋钮和机壳极易变脏。可用中性洗涤剂和无纺布对其进行清洁，请勿用去污剂、酒精、喷雾剂或石油制剂等化学药剂进行清洁，以避免产品表面和外壳受损。
- 清洁之后，务必保证本产品彻底干燥，否则请勿使用。

选购配件

本产品主要的选购附件已包含在如下列表中，如需更多附件信息，请咨询您当地的经销商或拨打我司服务热线 400-830-7020。



注意：请使用我司指定的配件。若擅自使用未经许可的配件，则由此所导致的一切后果，由用户自行负责。

配件类型	配件型号	配件名称
电源类	BL1103	锂离子电池（1100mAh）
	BL1809	锂离子电池（1800mAh）
	CH04L01	携带式充电器
	CHV09	座充车载电源适配器
	MCA05-X	电池分析仪
	MCA10	X1ei 排充
音频类	POA53	锂电适配器
	POA58	X1ei 系列排充电池充电兜
	EAN19	三线透明管双 PTT 线控耳机（米色）
	EAN21	三线透明管监控耳机（米色）
	EAN22	分体式透明管耳机
	EAN24	二线透明管监控耳机（黑色）
	EHN20	分体可调节耳挂式耳机
	EHN21	分体 C 型耳挂式耳机
	EHW02	无线耳机
	ESN14	分体耳塞式耳机
线材类	EWN07	无线线控数字隐形耳机（项圈式感应器）
	EWN08	无线数字隐形耳机（扁平式感应器）
携带类	POA47	无线指环 PTT
	PC45	编程连接线（USB 口）
	NCN009	隐蔽式背心
	PCN005	携带夹
	NCN009-C	携带背心（白色）

保修范围与期限

我司承诺，凡我司生产的产品，自购买之日起，在正常使用、操作与维护条件下，出现材料或制造工艺方面的缺陷，可享受以下规定的保修服务。

主机	24 个月
标配附件（包括电池、充电座）	12 个月

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