



**MOTOROLA SOLUTIONS**

**en-US**

RF Energy Exposure Training and Product Safety Information for  
Portable Two-Way Radios

**zh-HK**

手提雙向無線電對講機的射頻能量接觸量培訓及產品安全資訊

MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license.

All other trademarks are the property of their respective owners.

© 2017 and 2023 Motorola Solutions, Inc. All rights reserved.

Printed in



**MN004535A01-AD**

[https://learning.motorolasolutions.com/User\\_Documentation](https://learning.motorolasolutions.com/User_Documentation)



## Caution

Before using this radio, read this booklet which contains important operating instructions.

For information on product details, brochures, user manuals and approved accessories. Please refer to [www.motorolasolutions.com](http://www.motorolasolutions.com).

## Compliance with RF Exposure Standards

National and international regulations require manufacturers to comply with the RF energy exposure limits for portable two-way radios before they can be marketed. Your Motorola Solutions two-way radio is designed, manufactured, and tested to comply with all applicable national and international regulations for human exposure to radio frequency electromagnetic energy.

## RF Energy Exposure Awareness and Control Information and Operational Instructions for General Population and Uncontrolled Environment Use

For more information on what RF energy exposure is, see the following websites:

- <https://www.fcc.gov/>
- <https://www.who.int/health-topics/electromagnetic-fields/>

For additional information, see <http://responsibility.motorolasolutions.com/index.php/ourapproach/wirelesscommhealth/>.

## RF Exposure Compliance and Control Guidelines

- Do not remove any of the RF Exposure Labels if present from this device or its related accessories.
- Attach these instructions to the device when you transfer it to other users.
- Do not use this device if the operational requirements described herein are not met.

## Operating Instructions

- Transmit no more than 50% of the time. To transmit (talk), press the **Push-To-Talk (PTT)** button. To receive calls, release the **PTT** button.
- Hold the radio in a vertical position in front of the face with the microphone (and other parts of the radio including the antenna) at least 1 in. (2.5 cm) away from the nose or lips. Antenna should be kept away from the eye.
- When worn on the body, always place the radio in a Motorola Solutions-approved clip, holder, holster, case, or body harness for this product.
- DO NOT hold the antenna when the radio is transmitting.

- DO NOT use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.
- To ensure continued compliance with applicable RF exposure limits, use only Motorola Solutions approved, supplied or replacement antennas, batteries, and accessories.
- For a list of Motorola Solutions approved accessories please refer to your user manual or visit [www.motorolasolutions.com](http://www.motorolasolutions.com)

## Acoustic Safety

Exposure to loud noises from any source for extended periods of time may temporarily or permanently affect your hearing. The louder the volume of the radio, the sooner your hearing will be affected. Hearing damage from loud noise is sometimes undetectable at first, and can have a cumulative effect.

To protect your hearing:

- Use the lowest volume necessary to do your job.
- Turn up the volume only if you are in noisy surroundings.
- Turn down the volume before adding headset or earpiece.
- Limit the amount of time you use headsets or earpieces at high volume.
- When using the radio without a headset or earpiece, do not place the radio's speaker directly against your ear.

## Medical Devices

If you use a personal medical device, such as a pacemaker or hearing aid, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

## Holsters Incorporating Magnets

Some Motorola Solutions holsters incorporate strong, neodymium magnets. If you use a personal medical device, such as a pacemaker or hearing aid, consult the manufacturer of your device to determine if it can be used in close proximity to magnets. Your physician may be able to assist you in obtaining this information. Also be aware that magnets can damage other products, including cell phones, computers, hard drives, and other electronic devices, as well as credit cards and magnetic media. Keep the holster away from any mechanical device that could be affected by a magnetic field. Consult the manufacturer of your product to determine if your device or product can be used in close proximity to magnets.

## Operational Warnings

The following explains the operational warnings:

### For Vehicle With Air Bags



#### Warning:

- Refer to vehicle manufacturer's manual prior to installation of electronic equipment to avoid interference with air bag wiring.
- DO NOT place a portable radio in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a portable radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to occupants of the vehicle.

### Potentially Explosive Atmospheres



#### Warning:

- Do not carry a radio that is not certified for Hazardous Locations into a potentially explosive atmosphere. It could result in a serious injury or death. You should only use a radio certified for hazardous locations in potentially explosive atmospheres.
- Explosive atmospheres refer to hazard classified locations that may contain hazardous gas, vapors, dusts, such as fueling areas below decks on boats, fuel or chemical transferor storage facilities, and areas where the air contains chemicals or particles such as grain, dust or metal powders. Areas with potentially explosive atmospheres are often, but not always, posted.
- DO NOT remove, install, or charge batteries in such areas, or remove or install antennas. Sparks in a potentially explosive atmosphere can cause an explosion or fire resulting in bodily injury or even death.

### Blasting Caps and Blasting Areas



**Warning:** To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a blasting area, or in areas posted: "Turn off two-way radio." Obey all signs and instructions.

### Batteries



**Caution:** Use only Motorola Solutions approved batteries.

- Risk of explosion if the battery is replaced by an incorrect type.
- Charge your battery using the approved Motorola Solutions charger.

- Use the battery in accordance with its water and/or dust Ingress Protection (IP) rating.
- Do not discard your battery into a fire.
- Do not replace the battery in any area labeled "Hazardous Atmosphere".
- Do not disassemble, crush, puncture, shred, or otherwise attempt to change the form of your battery.
- Do not dry a wet or damp battery with an appliance or heat source, such as a hair dryer or microwave oven.
- Do not allow conductive material such as jewelry, keys, or beaded chains to touch exposed battery terminals.
- Do not dispose of batteries with household waste.

## Safety Instructions for Power Supply

1. The power supply is for use with equipment according to IEC/EN/UL 62368-1/60950-1.
2. The power supply is for indoor use in dry locations.
3. The equipment shall be connected to a nearby and easily accessible socket outlet.
4. If the power supply is damaged or defective, do not repair or use the power supply.

## Repair



### Warning:

- Repairs to a Motorola Solutions Hazardous Location-Approved radio product certified by, for example, UL, CSA, CENELEC, should only be done at a location that has been audited under the certifying body's repair and service standard.
- Contact Motorola Solutions for assistance regarding repairs and service of Motorola Solutions Hazardous Location-Approved equipment.

A repair constitutes something done internally to the unit that would bring it back to its original condition.

Items not considered as repairs are those in which an action is performed on a unit which does not require the outer casing of the unit to be opened in a manner that exposes the internal electrical circuits of the unit.

## Do Not Substitute Options or Accessories

The Motorola Solutions communications equipment certified as intrinsically safe by the approving agency (UL, CSA, CENELEC) is tested as a complete system which consists of the listed agency Approved portable, Approved battery, and Approved accessories or options, or both. This Approved portable and battery

combination must be strictly observed. There must be no substitution of items, even if the substitute has been previously Approved with a different Motorola Solutions communications equipment unit. Approved configurations are listed by the Approving Agency (UL, CSA, CENELEC).

The Hazardous Location-Approved Label affixed to radio refers to the intrinsically safe classification of that radio product, and the approved batteries that can be used with that system.

The manual part number referenced on the Hazardous Location-Approved Label identifies the approved Accessories and or options that can be used with that portable radio unit.

Using a non-Motorola Solutions-Hazardous Location-Approved battery and/or accessory with the Motorola Solutions approved radio unit will void the Hazardous Location approval of that radio unit.

## **European Union (EU) Waste of Electrical and Electronic Equipment (WEEE) Directive**



The European Union's WEEE directive requires that products sold into EU countries must have the crossed out trash bin label on the product (or the package in some cases). As defined by the WEEE directive, this cross-out trash bin label means that customers and end-users in EU countries should not dispose of electronic and electrical equipment or accessories in household waste. Customers or end-users in EU countries should contact their local equipment supplier representative or service centre for information about the waste collection system in their country.

# Notes



## 注意

使用本無線電對講機前，請閱讀本小冊子的重要操作說明。  
有關產品詳情、小冊子、用戶指南和認可配件的資訊，請瀏覽  
[www.motorolasolutions.com](http://www.motorolasolutions.com)。

## 遵守射頻接觸量標準

國家和國際規定要求製造商必須遵守手提台雙向無線電對講機的射頻能量接觸量限制，方可在市場發售。Motorola Solutions 雙向無線電對講機的設計、製造和測試均符合人體接觸射頻電磁能量的所有適用國家和國際規定。

## 一般人士和在不受控制環境中使用的射頻能量接觸量意識、控制資訊及操作說明

了解更多有關射頻能量接觸量的資訊，請查看以下網站：

- <https://www.fcc.gov/>
- <https://www.who.int/health-topics/electromagnetic-fields/>

了解更多資訊，請瀏覽 <http://responsibility.motorolasolutions.com/index.php/ourapproach/wirelesscommhealth/>。

## 射頻接觸量合規及控制指引

- 切勿移除本裝置或其相關配件上的任何射頻接觸標籤。
- 將裝置交予其他使用者時，請同時附上相關說明。
- 如此處描述的操作要求與本裝置不相符，請勿使用本裝置。

## 操作說明

- 傳輸時間不應超過一半的使用時間。傳輸（說話）時，請按**一按通話 (PTT)** 按鈕。接收通話時，鬆開 **PTT** 按鈕。
- 將無線電對正面部垂直握著，麥克風（包括天線在內的其他無線電部分）則與鼻或唇距離至少 1 英寸（2.5 厘米）。天線應該遠離雙眼。
- 在身上佩戴無線電對講機時，請隨時將無線電對講機放於適用於本產品的 Motorola Solutions 認可扣夾、保護套、皮套、保護盒或全身式安全帶。
- 當無線電對講機正在傳輸時，切勿握著天線。
- 若手提無線電對講機的天線有任何損壞，切勿使用。若損壞的天線接觸到皮膚，可能會導致輕微灼傷。
- 為確保時刻符合適用的射頻接觸量限制，請只使用 Motorola Solutions 認可、隨附或取代的天線、電池和配件。
- 有關 Motorola Solutions 認可配件清單，請查看用戶指南或瀏覽 [www.motorolasolutions.com](http://www.motorolasolutions.com)

## 聽覺安全

長時間聆聽任何來源的高音量聲響，可能會暫時或永久影響聽力。無線電對講機的音量越大，聽力便會越早受到影響。你起初可能察覺不到高音量聲響會引起聽力受損，但其影響會日積月累。

保護聽覺方法：

- 工作時盡可能使用最低音量。
- 只在嘈雜的環境中才將音量提高。
- 佩戴耳機或耳塞前，先將音量調低。
- 使用耳機或耳塞時，限制聆聽高音量的時間。
- 在沒有佩戴耳機或耳塞的情況下使用無線電對講機時，請勿將無線電對講機的揚聲器直接放在耳邊。

## 醫療儀器

若使用起搏器或助聽器等個人醫療儀器，請諮詢儀器的製造商，以確定儀器是否足以防禦射頻能量。你的醫生或可協助你取得相關資訊。

## 磁鐵保護套

部分 Motorola Solutions 保護套採用強力釹磁鐵。若使用起搏器或助聽器等個人醫療儀器，請諮詢儀器的製造商，以確定儀器是否可以靠近磁鐵使用。你的醫生或可協助你取得相關資訊。此外，請注意磁鐵會損壞其他產品，包括手機、電腦、硬碟和其他電子裝置，以及信用卡和磁性媒體。保護套應該遠離任何可能受磁場影響的機械裝置。請諮詢產品製造商，以確定裝置或產品是否可以靠近磁鐵使用。

## 操作警告

以下為操作警告說明：

### 備有安全氣囊的車輛



#### 警告：

- 在安裝電子設備之前，請參閱車輛製造商的指南，以避免干擾安全氣囊的連接線。
- 切勿將手提台無線電對講機放在安全氣囊上方或安全氣囊展開的範圍內。安全氣囊充氣時會產生巨大衝力。如手提台無線電對講機放在安全氣囊的展開範圍內，一旦安全氣囊展開，無線電對講機可能受到巨大衝力撞擊，並造成車內乘客嚴重受傷。

### 潛在爆炸性環境



#### 警告：

- 切勿攜帶未經認證可用於危險位置的無線電對講機進入潛在爆炸性環境，否則可能會導致嚴重的人身傷害或死亡。在潛在爆炸性環境下，僅可使用經認證可用於危險位置的無線電對講機。
- 爆炸性環境指可能含有有害氣體、蒸氣、灰燼等分類為危險的位置，如船上甲板下的加油區域、燃料或化學品的轉換儲存設施，以及空氣中含有化學物質或顆粒、灰塵或金屬粉末等微粒的範圍。潛在爆炸性環境並非經常予以標示。
- 切勿在這些範圍內拆除、安裝或充電，也不要拆除或安裝天線。潛在爆炸性環境中產生的火花會引起爆炸或火警，導致人身傷害或甚至死亡。

### 雷管和爆破區



**警告：**為避免干擾爆破作業，請在靠近電子雷管、爆破區內或張貼「關閉雙向無線電對講機」警告字句的地方，關閉產品。請遵守所有告示牌和說明的指示。

### 電池



**注意：**請只使用 Motorola Solutions 認可的電池。

- 如使用類型不符的電池替代，可能會有爆炸風險。
- 使用認可的 Motorola Solutions 充電器為電池充電。
- 根據防水及/或防塵防護 (IP) 等級使用電池。
- 切勿將電池丟入火中。
- 切勿在標明「危險環境」的任何範圍內更換電池。
- 切勿拆開、擠壓、刺穿、壓碎或以其他方式嘗試改變電池的結構。
- 切勿使用電器或熱源（如風筒或微波爐）弄乾潮濕的電池。
- 切勿讓電池外露的端鈕接觸珠寶、鑰匙或珠鍊等導電物料。
- 請勿將電池與家居廢物一同棄置。

### 電源供應器安全說明

1. 電源供應器必須配合符合 IEC/EN/UL 62368-1/60950-1 的設備使用。
2. 電源供應器僅供室內使用，而其所在位置必須乾爽。
3. 設備應連接至就近且易於使用的電源插座。
4. 如電源供應器損壞或有缺陷，切勿自行維修或使用。

### 維修



**警告：**

- 經保險商試驗 (UL)、加拿大標準協會 (CSA)、歐洲電工技術標準化委員會 (CENELEC) 等機構認證的 Motorola Solutions 危險位置認證無線電產品，只能在經認證機構的維修和服務標準審核的地方進行維修。
- 有關 Motorola Solutions 危險位置認證的維修和服務，請聯絡 Motorola Solutions 以獲取協助。

維修是指修理單元的內部，使其恢復原來狀態。

無需開啟單元外殼便可使內部電路外露的檢查，並不視為維修。

## 切勿使用替代選件或配件

Motorola Solutions 通訊設備獲認證機構 (UL、CSA、CENELEC) 認可為本質安全，經全面系統測試，並備有上述機構的認可手提台對講機、認可電池和認可配件或選件，或兩者兼備。必須嚴格遵守認可手提台對講機和電池組合的使用規定。不得使用替代配件，即使替代配件已獲得認可用於另一型號的 Motorola Solutions 通訊設備。認證機構 (UL、CSA、CENELEC) 已列明認可設定。

貼於無線電對講機上的危險位置認證標籤是指該無線電產品分類為本質安全，而認可電池可用於該系統。

危險位置認證標籤上印有指南零件編號，該指南列出適用於該手提台無線電單元的認可配件及/或選件。

於 Motorola Solutions 認可無線電單元上使用非 Motorola Solutions 危險位置認證電池及/或配件，會使該無線電單元的危險位置認證失效。

## 歐盟 (EU) 廢棄電器及電子設備 (WEEE) 指令



歐盟的 WEEE 指令要求銷售到歐盟國家的產品，必須在產品 (或某些情況下的包裝) 上包括劃掉垃圾桶的標籤。正如 WEEE 指令列明，劃掉垃圾桶的標籤代表歐盟國家的客戶和最終使用者，不應將電子和電器設備或配件當作家居垃圾棄置。歐盟國家的客戶或最終使用者應該聯絡當地的設備供應商代表或服務中心，了解有關他們國家的廢物收集系統資訊。