

**A10**

**Arm Assist Robot**

**USER MANUAL**



## INSTRUCTIONS FOR USE

Thank you for choosing the A10 Arm Assist Robot. The A10 will become your powerful work partner and loyal assistant, helping to reduce shoulder pressure and decrease physical energy consumption.

Please read this manual carefully before using the product and operate according to the manual requirements to avoid losses or injuries caused by improper operation.

Failure to operate according to the manual requirements or violation of prompts and warnings may lead to injury or robot damage; Kenqing Technology will not bear any responsibility for losses or injuries resulting therefrom.

The A10 has strong power. To achieve optimal usage results, please note the following:

- **Wearing: Wear according to the steps in the manual. A tight fit against the body and tightened straps provide the best handling experience.**
- **Ensure the robot is powered off before removal.**

Please keep this manual safe. The images in this manual are for illustrative purposes only; refer to the actual product.

For any questions during use or information not mentioned in this manual, please contact Kenqing Technology or your local distributor promptly.



## RISK DISCLOSURE STATEMENT

1. Individuals with hypertension, heart disease, or poor physical motor function should use with caution.
2. Before use, check for rod breakage, strap damage, exposed wiring, or physical damage. If any issues exist, do not use and contact Kenqing Technology or your local distributor.
3. First-time users must adjust the height to match their stature.
4. Ensure correct wearing of the robot when using the A10.
5. During normal use, the A10 applies assisting torque to the upper arms. Initial use or improper adjustment may cause discomfort. Practice in a safe environment before daily use.
6. The A10 contains powered rotating components that may pinch fingers/body. Keep fingers away from moving parts. Prevent children from playing with the device. Use carefully in crowded environments.
7. Do not use the A10 when: immersed in water, near high temperatures/flames, strong magnetic/electric fields, or extreme temperatures.
8. In emergencies, turn off the power switch immediately.
9. Always power off the robot before removal.
10. When replacing batteries or removing the A10, prevent accidental drops.
11. Use only the specified power adapter. Do not handle plugs with wet hands. Non-standard adapters may cause battery damage or fire.

# 1. PRODUCT INTRODUCTION

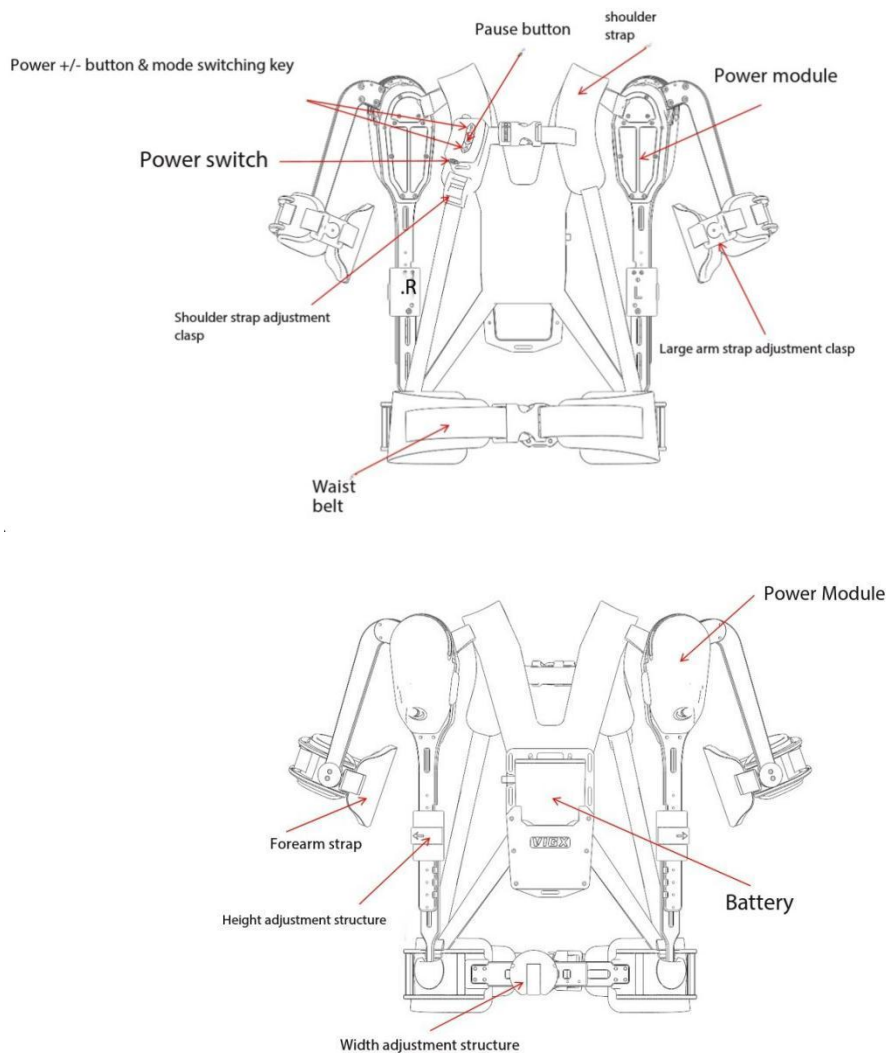
## 1.1. Product Overview

The A10 Arm Assist Robot is a powered exoskeleton designed for prolonged overhead work and heavy object handling in industrial, construction, logistics, agricultural, and medical fields.

It provides arm support through a rigid frame, reducing shoulder pressure and fatigue during overhead tasks, decreasing physical burden, lowering work intensity, saving energy, and extending endurance.

The A10 features simple structure, light weight, quick wearing, and easy operation.

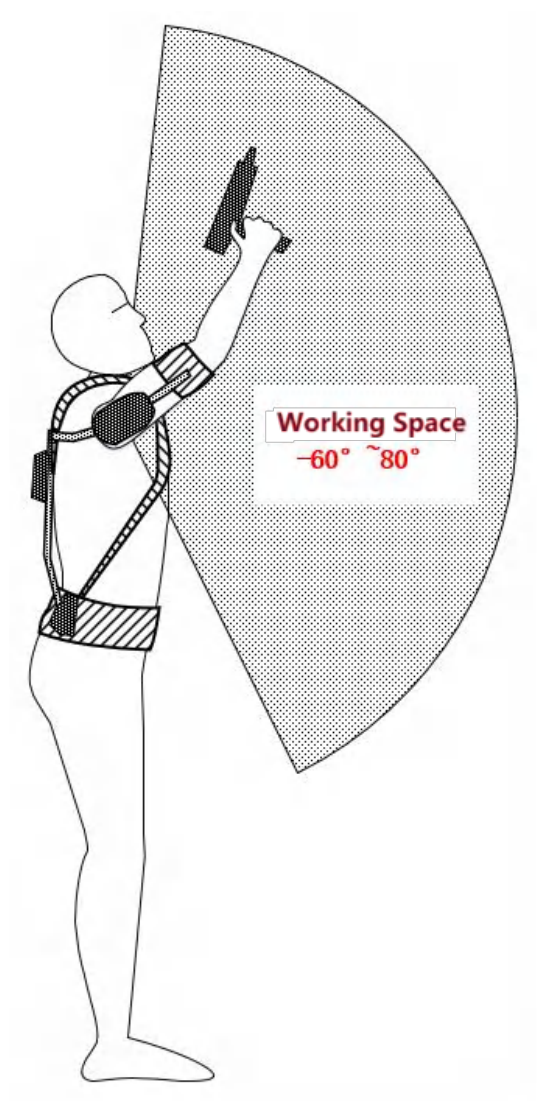
## 1.2. Exterior Structure



### 1.3. Accessory Description

| Category               | Item            | Quantity | Description                                                                                 |
|------------------------|-----------------|----------|---------------------------------------------------------------------------------------------|
| Standard Configuration | Main Unit       | 1 set    | Includes shoulder straps, waist belt, hip belt, and leg straps pre-installed at the factory |
|                        | Battery         | 1 unit   | Lithium-ion battery                                                                         |
|                        | Charging Device | 1 set    | Charger + Charging adapter                                                                  |
|                        | Straps          | 1 set    | Pre-installed on the main unit.                                                             |
|                        | Upper Arm Strap | 1 set    | Pre-installed on the main unit.                                                             |
|                        | Waist Belt      | 1 set    | Pre-installed on the main unit.                                                             |

### 1.4. Working Range



## 2. ASSEMBLY AND ADJUSTMENT

### 2.1. Battery Removal and Installation

**Step 1:**

Press the button on the battery left side to eject it.



**Step 2:**

Push the battery inward to lock it.



Note: Prevent battery drops during replacement.

### 2.2. Height Adjustment

Adjust height according to user's height before wearing.

**Step 1:**

Press the height adjustment button.



### Step 2:

Push/pull vertically to suitable height while holding the button.



## 2.3. Width Adjustment

Adjust width according to waist size before wearing.

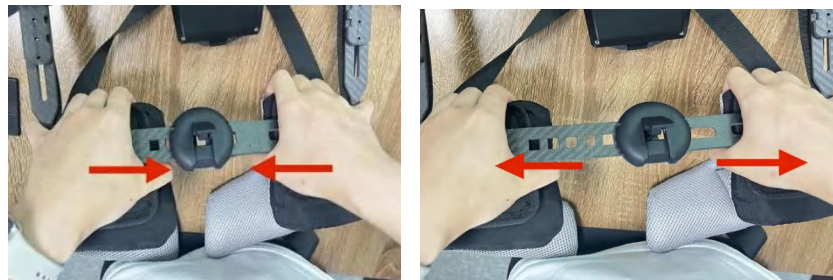
### Step 1:

Open the width adjustment latch.



### Step 2:

Push/pull horizontally to suitable position.



### Step 3:

Close the latch securely.



## 3. WEARING AND USAGE

### 3.1. Wearing

#### 3.1.1. Wearing Procedure

Before wearing, please adjust the width and height.

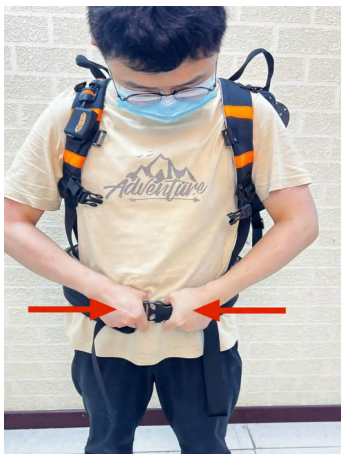
##### Step 1:

Place on back like a backpack, threading arms through shoulder straps.



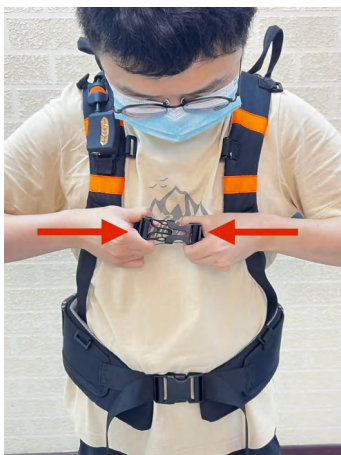
##### Step2:

Buckle and tighten the waist belt.



##### Step 3:

Buckle the chest strap.



#### Step 4:

Buckle the upper arm strap and pull it tight.



#### Step 5:

Open shoulder strap buckles, tighten straps, and relock buckles.



### 3.1.2. Removal

#### Step 1:

Unbuckle upper arm straps and remove them.



Step 2:

Release chest and waist buckles, take off the device.



 Note: Always power off before removal.

## 3.2. Usage

### 3.2.1. Buttons

Front:

: Increase

: Decrease

: Function button



Bottom:

: Emergency switch



### 3.2.2. Power On/Off

Press the switch below the right chest.

Self-check completes with voice prompt: "Remaining battery XX%" while power on.

Voice prompt: "Shutting down, please watch your step" while power off.

### 3.2.3. Assistance Adjustment

**Start/Pause:** Short press  button to activate with voice prompt and  led will be lighted on.

Double-click  to pause.

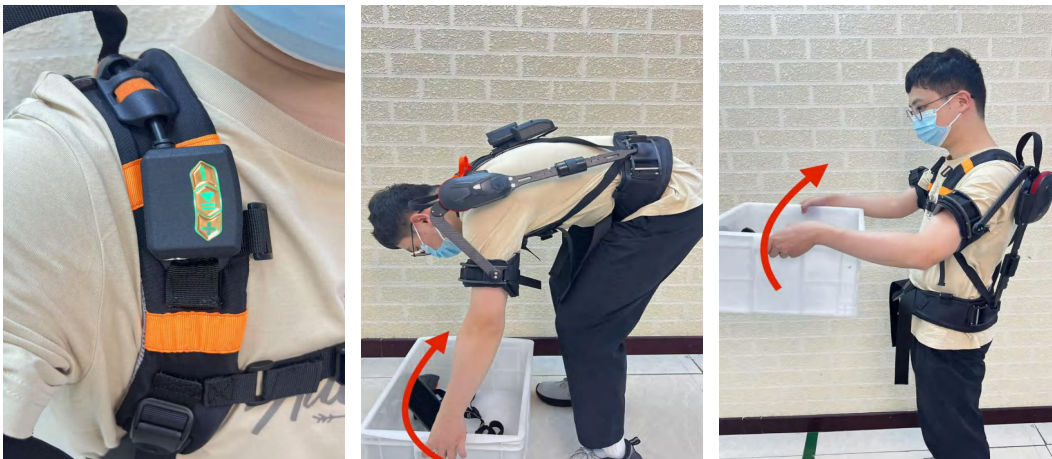
**Assistance Adjustment:** Short press  to increase assistance. Short press  to decrease assistance.

### 3.2.4. Working Modes

**Switch modes:** Switch modes by pressing  and  simultaneously in active state.

**Carry mode1:** Suitable for overhead handling tasks, such as lifting boxes/work pieces upward from a tabletop, the  and  buttons illuminate green simultaneously.

After activation, the robot continuously provides arm lifting assistance. The duration of the additional handling force can be set via the APP.

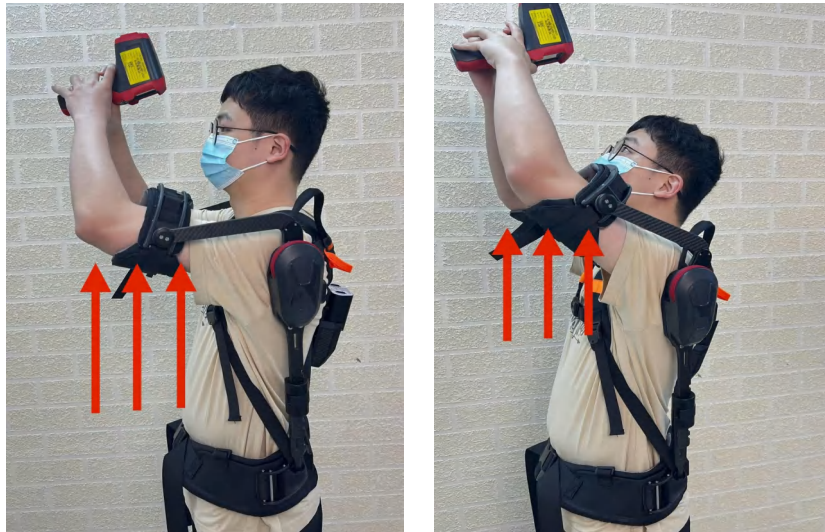


**Carry mode2:** Suitable for overhead lifting tasks. When both the  and  buttons glow blue, the device will provide assistance upon detecting a forward-leaning motion of the body.



**Lift mode:** Suitable for prolonged overhead arm operations, such as overhead painting, screw driving, etc, the  and  buttons illuminate white simultaneously.

The robot locks the position after the arm remains elevated at a certain height for 1 second. The user can unlock it by lifting or pressing down the arm slightly. Users can re-lock a new position at any time.



### 3.2.5. Battery Indicator

 **Button colors:**

Green——sufficient;

Yellow——low;

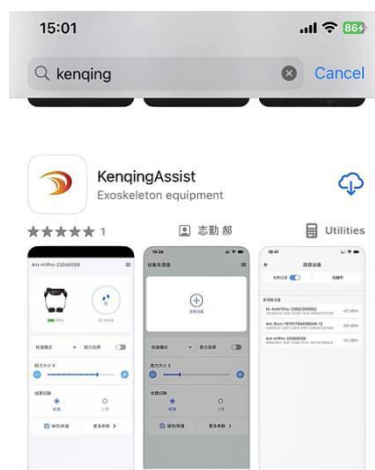
Red——depleted.

**Voice report:** Long press  button for battery level announcement.

### 3.2.6. App Download

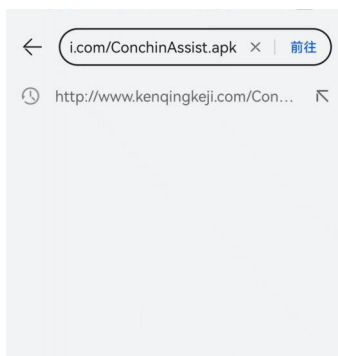
iOS:

Search  
"Kenqing  
Assist" in App  
Store.



Android:

Scan QR code  
or visit  
<http://www.kenqingkeji.com/ConchinAssist.apk>



⚠ Manual updates may be delayed. The actual features and interface shall be subject to the downloaded App.

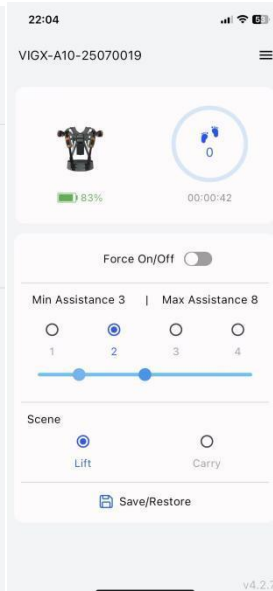
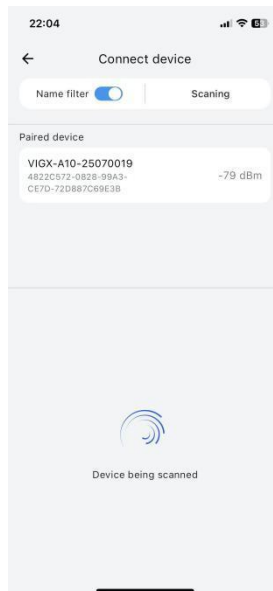
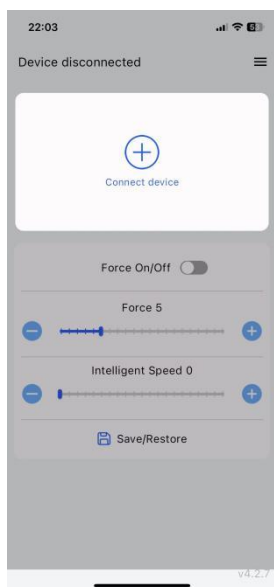
### 3.2.7. App Connection

#### Step 1:

Open APP,  
grant  
permissions,  
tap "Connect  
Device".

#### Step 2:

Select robot by  
last 8 digits of  
SN on label.



#### Step 3:

Press  to  
confirm  
connection on  
robot at first  
pairing.



## 4. MAINTENANCE

### 4.1. Charging

#### Step 1:

Connect charger to dock first.



#### Step 2:

Insert battery with correct orientation.



#### Step 3:

#### Charging indicator:

Charging: Red;

Complete: Green.

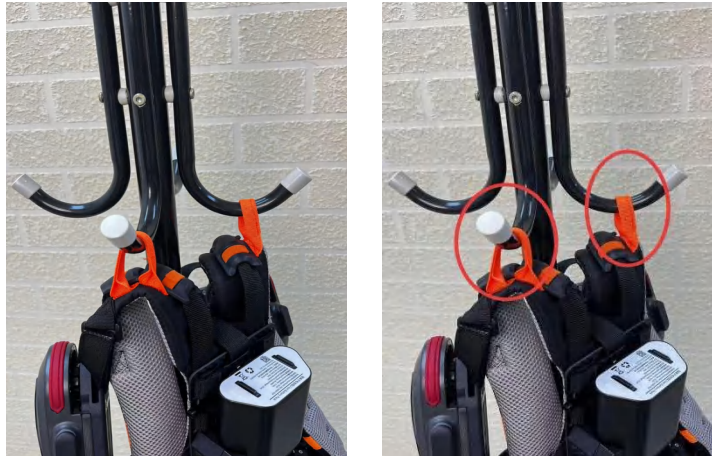


Note:

1. Using non-specified chargers may damage the battery or even cause a fire;
2. Avoid prolonged charging operations.

## 4.2. Storage

Hang robot using shoulder strap hooks.



## 4.3. Long-term Storage

Remove battery. Store in dry, ventilated area ( $10^{\circ}\text{C}$ - $45^{\circ}\text{C}$ ,  $\leq 75\%$  humidity). Avoid corrosive materials, heat, and flames. Recharge every 3 months.

## 4.4. Cleaning

- Fabric: Remove straps; wash in water with neutral detergent; air dry before reattaching.

- Surfaces: Wipe with damp cloth, then disinfect with alcohol wipes.



Note: Do not use water above  $40^{\circ}\text{C}$  for fabric cleaning.

## 5. COMMON TROUBLESHOOTING

| Fault Phenomenon          | Possible Cause Analysis                                                                                                                  | Troubleshooting                                                                                                      |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Failure to power on       | 1. Battery not installed<br>2. Battery depleted<br>3. Power switch not closed                                                            | Install the battery and charge it<br>Power on the robot correctly                                                    |
| No assistance             |  Button flashing, assistance paused                     | Press  button activate assistance |
| High-temperature shutdown | Voice prompt: "Temperature high, please note usage." Robot enters shutdown protection due to high ambient temperature                    | Use within suitable environmental temperatures                                                                       |
| Robot malfunction         | Voice prompt reports fault information,  button flashes | Customer Support                                                                                                     |
| Other faults              |                                                                                                                                          | Customer Support                                                                                                     |

 Note: If unresolved, do not disassemble; contact customer support.

## 6. TECHNICAL PARAMETERS

### 6.1. Basic Parameters

|                         |                                             |
|-------------------------|---------------------------------------------|
| Product Model           | A10                                         |
| Maximum Assistance      | Single arm: 8kg, Dual arms:16kg             |
| Recommended User Height | 150cm~190cm                                 |
| Battery life            | 6~8h(Battery replaceable)                   |
| Charging Time           | 1.5h                                        |
| Operating Temperature   | -20℃~45℃                                    |
| Charging Temperature    | 0℃~45℃                                      |
| Charging Voltage Limits | Device: 29.4V    Charger: 100V~240V 50/60Hz |
| Bluetooth               | BLE: 2402-2480Mhz                           |

### 6.2. Operating Environment

Temperature: -10℃ to 45℃ (operating), 0℃ to 45℃ (charging);

Protection: Dust and rain resistant (not waterproof).

### 6.3. Hazardous Substances Information

| Part Name                  | hazardous substances or elements |    |    |     |        |      |
|----------------------------|----------------------------------|----|----|-----|--------|------|
|                            | Pb                               | Hg | Cd | PBB | Cr(VI) | PBDE |
| PCBA                       | ×                                | ○  | ○  | ○   | ○      | ○    |
| Components (incl. modules) | ×                                | ○  | ○  | ○   | ○      | ○    |
| Battery                    | ×                                | ○  | ○  | ○   | ○      | ○    |
| Charger                    | ×                                | ○  | ○  | ○   | ○      | ○    |
| Metal Structural Parts     | ○                                | ○  | ○  | ○   | ○      | ○    |
| Plastic Structural Parts   | ○                                | ○  | ○  | ○   | ○      | ○    |
| Wrap                       | ○                                | ○  | ○  | ○   | ○      | ○    |

This form has been prepared in accordance with the provisions of SJ/T 11364.

○: It means that the content of the hazardous substance in all homogeneous materials of the component is below the limit requirements stipulated in GB/T 26572.

×: Indicates that the content of the hazardous substance in at least one homogeneous material of the component exceeds the limit requirements stipulated in GB/T 26572, and there is no mature alternative in the industry at present, which is in line with the environmental protection requirements of the EU RoHS Directive.



The numbers in this logo indicate that the product has an environmental life span of 10 years under normal use. Certain parts may also be labelled with an environmental life expectancy, and the environmental life expectancy is based on the number in the logo.

## 7. SERVICE AND SUPPORT

### APP download:



Android



iOS



Video Guide



Official Website

Address: A1, 1/F, Block A, Shanshui Building, Nanshan Yungu Innovation Industrial Park, Liuxian Avenue, Nanshan District, Shenzhen, China.

Contact: 400-876-8873.

### FCC Caution:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.