Sport Assist Robot

Model : π plus

USER MANUAL

VIGX

Content

1. OVERVIEW 3
1.1. WHAT'S Π 3
1.2. WEARING 3
1.3. APPEARANCES AND STRUCTURE 4
1.4. ACCESSORY LIST 5
2. ASSEMBLY & ADJUSTMENT 6
2.1 BATTERY ASSEMBLY / DISASSEMBLY 6
2.2 WAIST STRAPS ASSEMBLY 6
2.3 SHOULDER STRAPS ASSEMBLY 7
3. WEARING AND USING 8
3.1 WEARING 8
3.2 WEARING STANDARDS 10
3.3 USE 11
3.4 TAKE OFF THE DEVICE 17
4. MAINTENANCE 18
4.1 STORAGE 18
4.2 STRAPS ASSEMBLY / DISASSEMBLY 19
WAIST STRAPS: 19
LEG STRAPS: 19
4.3 CLEANING 19
5. COMMON TROUBLESHOOTING 20
6. FEATURES 21
6.1 MAIN PARAMETERS 21
6.2 SIZE OF THE POPULATION 21
6.3 OPERATING ENVIRONMENT 22
6.4 NAMES AND CONTENTS OF HAZARDOUS SUBSTANCES IN PRODUCTS 22
7. SERVICE & SUPPORT 23
8. FCC Caution 24

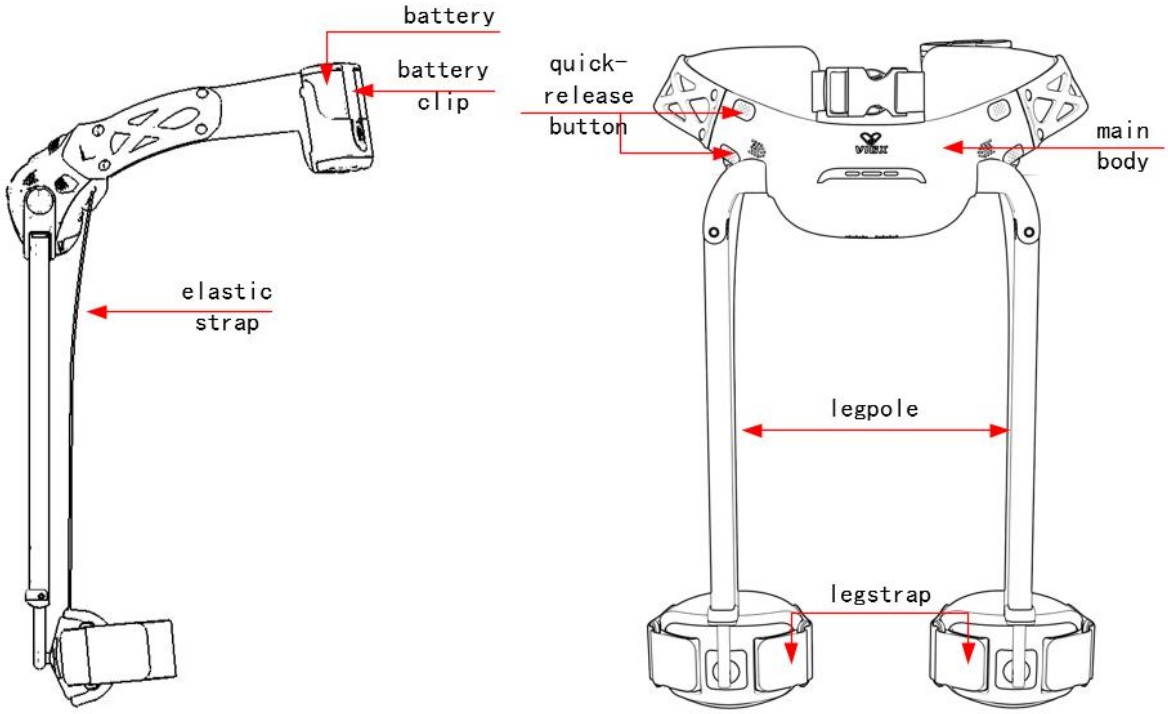
1. Overview

1.1. What's π

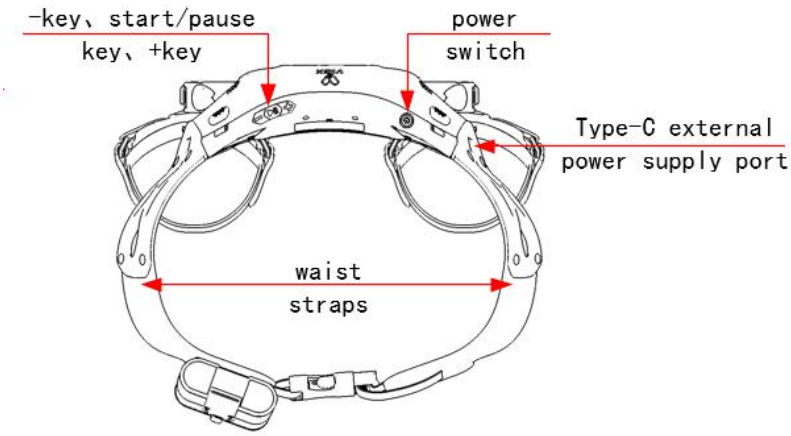
Sport Assist Robot π, with its hip-assisted function, is a powerful sports assistant for outdoor climbing, hiking and jogging. Wearing π, whether walking, hiking or running, can reduce the body's physical energy consumption, allowing you to climb higher, walk farther, exercise longer and exercise more fully. Built-in chip can keenly sense the movement and accurately output traction assistance to reduce the muscle burden on the hip and knee joints, reduce joint wear and tear during exercise, and protect your sports health.

1.2. Wearing

1. 3. Appearances and Structure



π Appearance Structure and Component Explanation Figure 1



π Appearance Structure and Component Explanation Figure 1

1. 4. Accessory list

Serial Number	Name	Quantity	Notes
1	Π equipment main body	1 unit	
2	waist straps	1 set	
3	battery	1 piece/2 pieces	2 pieces for the Plus version, 1 piece for the Basic version
4	leg straps	1 set	Installed on equipment
5	shoulder strap	1 set	
6	battery charging seat	1 unit	
7	battery charger	1 unit	Includes 1 metre of line
8	product user manual	1 copy	
9	equipment organizer	1	

2. Assembly & Adjustment

2. 1 Battery assembly / disassembly

Step 1: Open the battery tab.

Step 2: Remove the battery and insert another battery .

Step 3: Cover the battery tab.

2. 2 Waist straps assembly

Step 1 : Attach the back buckle.

Step 2 : Insertion of left and right side waist straps.

2.3 Shoulder straps assembly

Step 1:

Hang the two side hooks on the hanging holes at the front and back of the waist straps respectively;

Step 2:

The elasticity of the shoulder straps is adjusted according to the height of the user, so that the device is just weightless on the waist.

3. Wearing and Using

3.1 Wearing

3.1.1 Host Wear

Step 1:

Grasp the host, wrap the host waist around your waist and insert the loose waist straps .

Step 2:

Adjust the host position about 3-4 fingers below the belly key, then tighten the waist straps.

3.1.2 Leg straps

Step 1:

Adjust the length of the leg elastic band according to your height;

Step 2:

Thread the leather buckle on the front side of the leg straps;

Step 3:

Leg strap elasticity adjusted to fit;

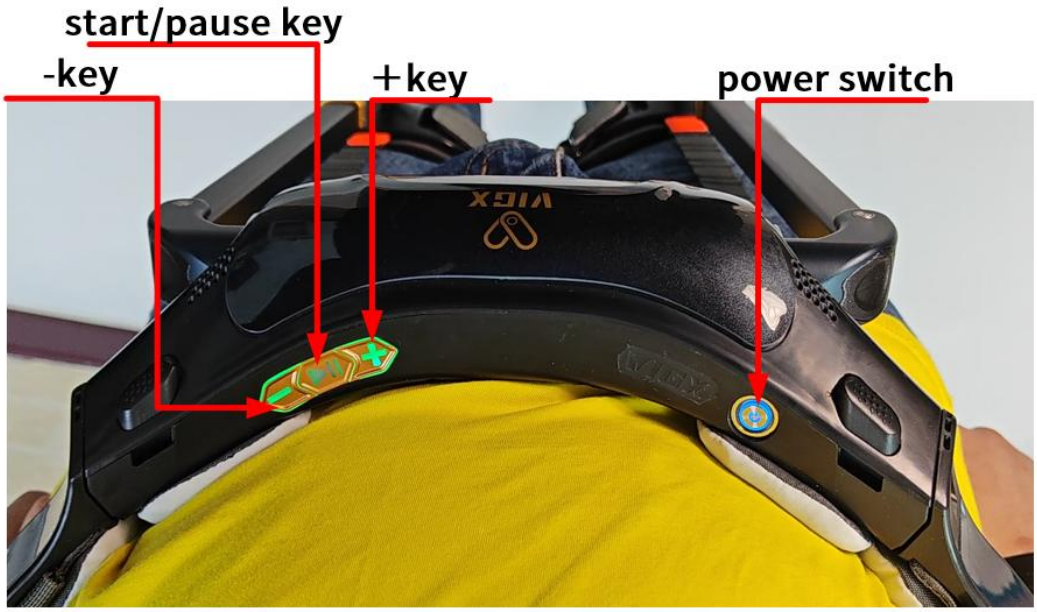
⚠Caution: Loose leg straps can cause the leg bar to pop up and easily cause injury.

3.2 Wearing Standards

- The upper edge of the host is 3-4 fingers under the navel;
- Wear it outside the hip bone;
- The wait starps is tightened and the person's waist has a certain corseted feeling;
- Leg shells above the knee, leg straps properly tightened.

3.3 Use

3.3.1 Key



3.3.2 Power on/off

Power on： Press the power switch ▬ , waiting for the device to start, start-pause key ▶II lights up.

⚠Caution：Before powering on, please make sure the battery is installed and the switch is in the power off state▬.

Power off： Press the power switch and the unit shuts down. After shutting down the device, the light of start-pause key goes out.

⚠Caution： Make sure to turn off the machine before unloading the device, otherwise the leg bar may pop up and cause injury easily.。

3.3.3 Adjust

Power startup / pause:

Short press the start-pause key , the robot startup and the light is always on;

Short press the start-pause key , the robot pause and the light flash;

Assist adjustment:

With the power assist on, short press the plus key , minus key to increase or decrease the power assist, and the voice announces the power gear;

Weight (kg)	Assist level
≤50	5
50-60	6-7
60-70	7-8
≥70	9-10

battery:

Long press the start-pause key, the device announces the current battery;

lamp:

Yellow light at 20% charge;

Orange light at 1% charge;

Scene Switching:

With the power assist on, press the plus + and minus − key briefly at the same time until the voice announces different scenes

Mode switching:

With the power assist pause, press and hold the plus + and minus − key at the same time until the voice announces different modes

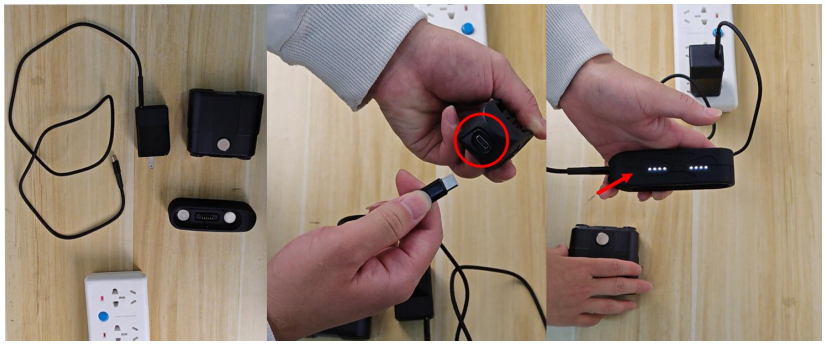
default configuration restored：

With the power assist pause, press and hold the plus ＋、 minus － and start-pause key ▶II at the same time until the voice announces “ default configuration restored”

3.3.4 Charging

Preparation：

As shown in the figure, connect the charging ports one by one, after power, the charging indicator is a slow running light

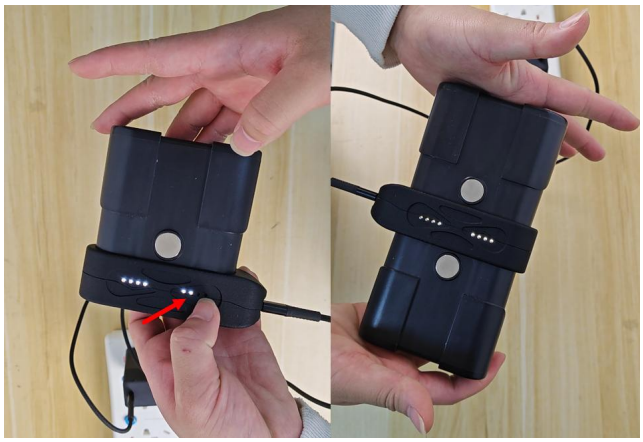


Charging：

Operate as shown in the figure, the indicator flows when the battery is charging;

The indicates green means the battery is full.

The indicates yellow means the battery is damaged.It should be replaced!



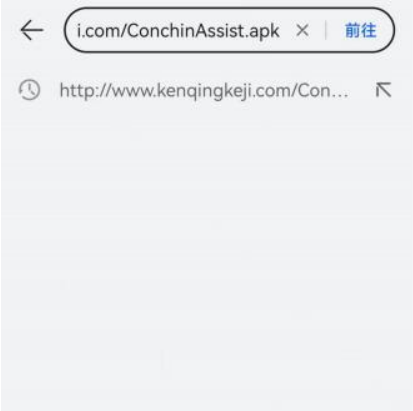
3.3.5 APP download

Android phones:

Method 1:please scan the QR code to download the APP.

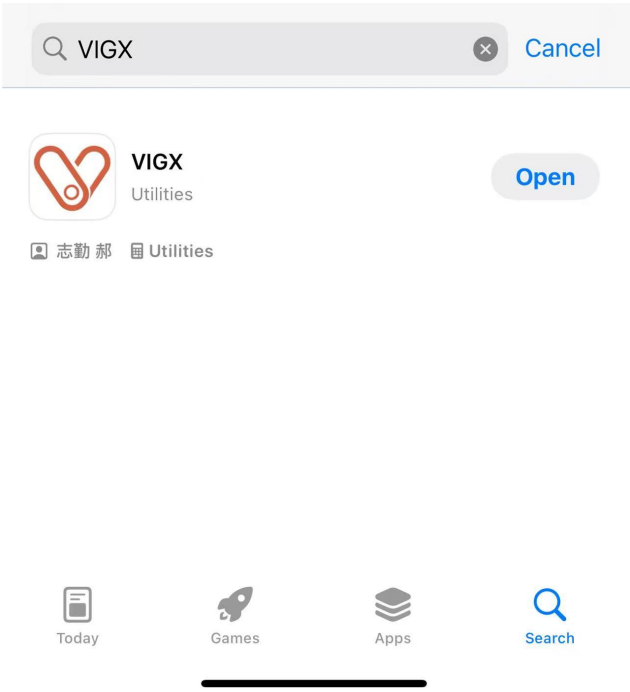
Method 2:please use your mobile browser to input URL: https://www.kenqingkeji.com/VIGX/VIGXAPP/VIGX.apk

Android APP Download



Iphone:

In App Store directly searches for "VIGX".



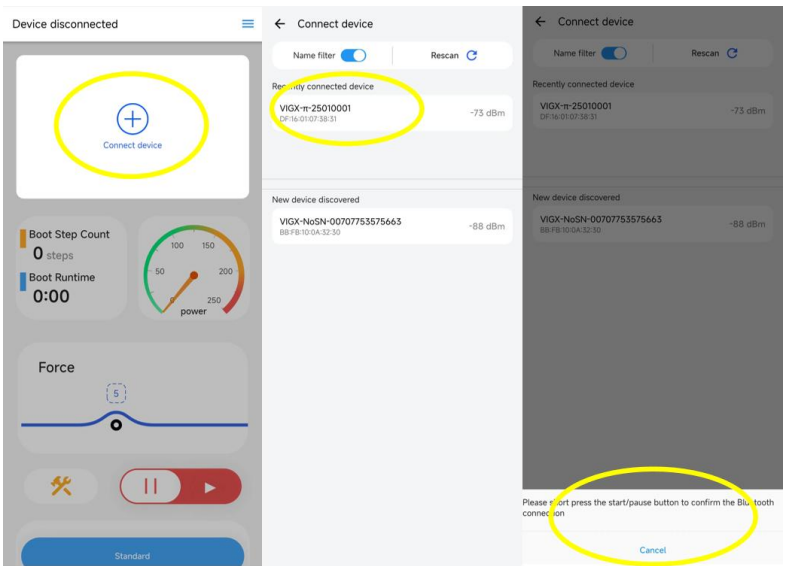
3.3.6 Connect APP

Step 1:

Click “Connect device”;

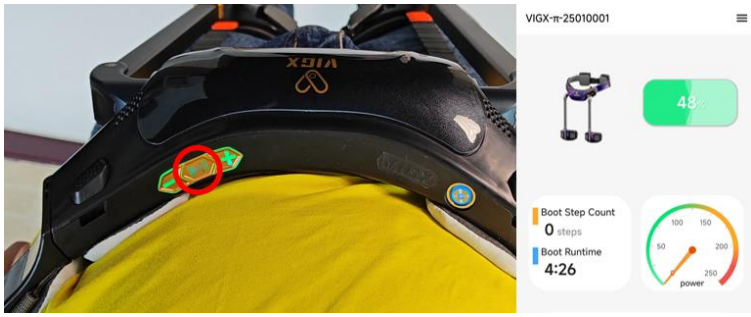
Step 2:

Click on the serial number to connect the device (serial number available on the device label,last 8 digits)



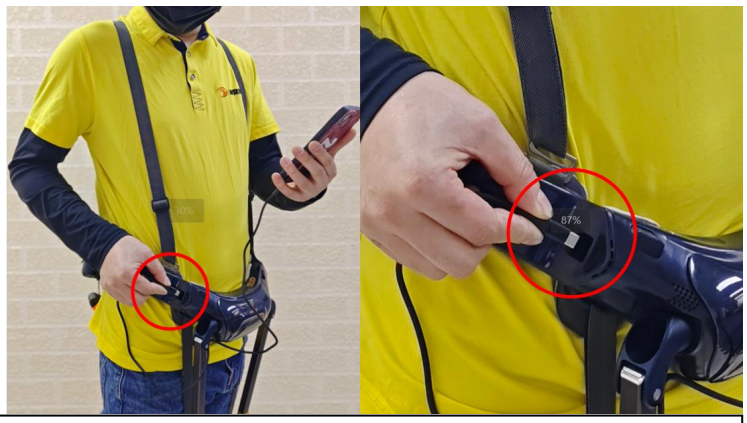
Step 3:

The first time to the device, you need to press the start-pause key to confirm the connection.



3.3.7 External power supply

The device supports Type-C interface 5v output, which can be used for external power supply.



⚠Caution： This Type-C port only supports external power supply and cannot be charged internally, please do not use a charger to charge it.

⚠Caution：

1、 π will be slightly heated during normal use, this is a normal phenomenon, please do not worry.

2、 Please do not walk when adjusting the size, parameters or mode during use to prevent the risk of unbalance and fall.

3.4 Take off the device

Step 1:

Peel off the front side velcro and take off the leg straps.

⚠Caution: Make sure the device is turned off before taking off the device, otherwise the leg bars may pop up easily causing injury.

Step 2:

Holding the main body of the unit.

Pull out the right waist straps while pressing the right release button.

⚠Caution: After unloading the device , take care to prevent the device from falling and causing injury.

4. Maintenance

4.1 Storage

Step 1:

Remove the waist straps on both sides of the device.

Step 2:

Folding host.

Step 3:

Pack.

4. 2 Straps assembly / disassembly

Waist straps:

The waist straps is attached by Velcro, so when you need to change and wash it, you just need to tear it.

Leg straps:

The leg straps is attached by Velcro, so when you need to change and wash it, you just need to tear it.

4. 3 Cleaning

4.4.1. Fabrics Cleaning

Right picture shows the washable part, for washing please use a laundry bag to avoid damaging;

Please install to the device after washing and drying.

⚠Caution: Do not use water temperatures above 40° C for cleaning

4.4.2. External Surface Cleaning

Wipe the robot with a non-dripping wet rag to remove dust and dirt or with alcohol wet towel for disinfection

5. Common Troubleshooting

Fault phenomenon	Analysis of possible causes	Fault resolution
Can't power on	1. The battery is not installed 2. The emergency switch is not closed 3. The battery is exhausted	1. Load battery 2. Close the emergency switch 3. Charge the battery
Wearing detection failed	1. Not worn 2. Not worn properly	Refer to chapter 3 for wearing
No power output	key blinking, power pause	Press the key to select the mode
No power output and prompt "Falling detected"	detects falling	Please press function key to start power output and walk normally
No power output and prompt "Over speed detected"	detects over running speed	Please press function key to start power output and run slowly
No power output and prompt "Temperature too high, device will shut down soon"	detects too high temperature and shut down	Please put Ant-H1 under proper temperature environment and wait it cool down then re-start
No power output and prompt "Device error"	key red indicator flashes	Please contact after-sales services
Other's failure		Please contact after-sales services

⚠Caution: If the problems cannot be solved, please contact after-sales services do not disassemble the machine by yourself.

6. Features

6.1 Main parameters

model	π	π plus
Weight	2.0kg (including battery, waist straps, leg straps, the weigh will vary due to different accessories)	2.2kg (including battery, waist straps, leg straps, the weigh will vary due to different accessories)
Size	450*350*320mm	450*350*320mm
Battery Capacity	51.8Wh	103.6Wh
One Charging Endurance	Continuous walking for -2h(12000 steps)@ medium speed @medium force Standby time: 24 hours	Continuous walking for -4h(24000 steps)@ medium speed @medium force Standby time: 48 hours
Maximum Torque	10Nm	15Nm
Maximum Speed	10.5km/h	15km/h
Bluetooth	BLE：2402-2480Mhz，EIRP：-4.0 dBm（Max）	BLE：2402-2480Mhz，EIRP：-4.0 dBm（Max）

6.2 size of the population

Host size	height（cm）
S	150-165
M	165-185
L	180-200

Waist strap Size	Waist size one finger below the belly button（cm）	inch （in）
S	72-82	28-32
M	82-100	32-39
L	100-125	39-49

Leg strap Size	Three fingers above the knee leg circumference size（cm）	inch （in）
S	30-45	12-18
M	40-62	16-24

6.3 Operating environment

Operating ambient temperature: -10°C~ 45°C.

Charging ambient temperature: 0°C~45°C.

Dustproof and rainproof (non-flooded).

6.4 Names and contents of hazardous substances in products

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 & Support

APP download:

Android APP
Download

Kenqing Technology official website and WeChat account are as below:

Official Website

WeChat Account

Addr: A1, Floor 1, Shanshui Bld., Nanshanyungu Park, Liuxian Ave., Nanshan District, Shenzhen, P.R.C

Contact: 400-876-8873

Email:conchin@kenqingkeji.com

Web: www.kenqingkeji.com

8. 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.